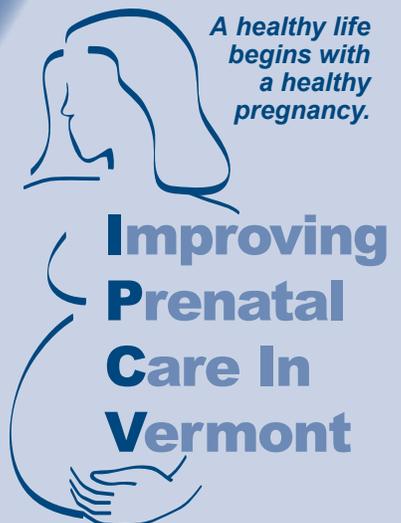


Practice Toolkit for
Improving Prenatal Care

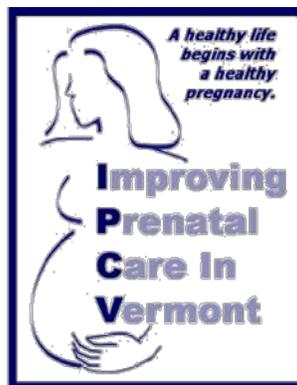


*A healthy life
begins with
a healthy
pregnancy.*

**Improving
Prenatal
Care In
Vermont**

IPCV Practice Toolkit Tools

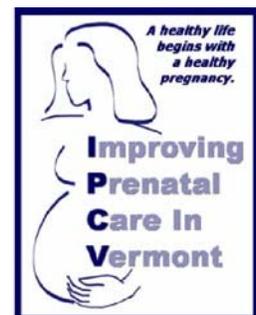
| | |
|-----------------------------------|-----|
| Introduction and Methodology..... | 3 |
| Practice Assessment | 31 |
| Patient Satisfaction..... | 35 |
| Tobacco Cessation..... | 38 |
| Nutrition..... | 59 |
| Breastfeeding Readiness..... | 74 |
| Gestational Diabetes..... | 91 |
| Psychosocial / Behavioral..... | 100 |
| Substance Abuse..... | 115 |
| Intimate Partner Violence..... | 123 |
| Depression..... | 144 |
| Preterm Labor..... | 165 |
| Infectious Disease..... | 168 |
| Environmental Exposure..... | 176 |
| Genetic Screening..... | 202 |



Practice Toolkit for Improving Prenatal Care

2006 Toolkit Introduction and Methodology

*Vj ku'vqpmk'y cu'et gcvgf "cu'rctv'qhl'y g'Dt gcmj tqwi j "Ugt kgu'Eqmc dqt cvkxg. "õKõ rt qxkpi "Rt gpcv'n'
Ect g'kp"Xgt o qpvõ" "Ceeqtf kpi n' . 'y ku'ugevkap"qhl'y g'vqpmk'qwrkpgu'vj g'o gyj qf qraqi f "qhl'y g'qt ki kpcn'
rt qlgev.'y j kej "gpf gf "kp"42270Hqt "gcej "qhl'y g'vqr ke'ugevkapu'vj cv'lmqy . "ekpkecn'leqpvgnv'y cu"
wrf cvgf . "kp"Ugr vgo dgt "42330Cv'y ku'vko g. 'y q'c.f.f ksqpcn'vqr keu'ugevkap'y gt g'et gcvgf <
Dt gcu'lggf kpi 'c'pf "Gpxkt qpo gpcv'n'Gzr quwt gu0"*



PREFACE

Prenatal care (PNC) is critical to enhancing a pregnant woman's current and future health and the health of her unborn child. Two decades ago, the Institute of Medicine in its reports "Preventing Low Birth weight" and "Prenatal Care: Reaching Mothers, Reaching Infants" challenged us to improve access to prenatal care in the United States; and the U.S. Public Health Service in its report "Caring for Our Future: The Content of Prenatal Care" challenged us to enhance the content and quality of prenatal care delivered in the United States. While there have been great strides made in increasing utilization and in reducing economic and racial disparities in access to PNC in the past two decades, there is no indications that the quality or content of care has markedly improved or that the clinical delivery of prenatal care has changed. Moreover, the continued, steady increase in low birth weight and prematurity rates in the United States suggests that we must re-examine the content of PNC, to make it more efficacious and more integrated into a women's lifetime of preconception and post conception health care. PNC is not a magic bullet to improve all birth outcomes; but its efficacy can be and must be improved and its delivery enhanced.

The Vermont Child Health Improvement Program (VCHIP) takes up the challenge of improving the content and quality of PNC service delivered. As far as I know, Improving Prenatal Care in Vermont (IPCV) is the first quality Improvement PNC initiative in United States to systematically target obstetric practices. It uses the Breakthrough Series (BTS), an effective collaborative learning model developed by the Institute for Healthcare Improvement. This model brings together teams of health care provider practices to work collaboratively to improve clinical care in focused topic elements of both the content and office practices associated with high quality patient-centered care; and then it implements an improvement methodology to effect the proposed changes. This model was implemented for IPCV in multiple obstetric practices throughout Vermont.

Prenatal care practices must continually evolve to offer the highest quality evidence-based care to their clients. IPCV, in particular, used a scientific experts consensus panel to address some of the key deficits in current PNC content and office systems around smoking cessation, STI screening, nutrition counseling, genetic counseling as well as to address newly emerging risk topics such as maternal depression and periodontal disease. The associated "Practice Toolkit for Improving Prenatal Care" addresses each of the above topics, and other key PNC content topics. The Toolkit provides step by step, practical means to enhance each of the topics.

Does the IPCV's quality improvement approach work? Yes, it does! The evidence (from its own feedback data) for improved practice is dramatic; the quality of PNC practice can be enhanced. IPCV is a very practical approach that works in real provider offices today, across a wide variety of urban, suburban and rural practices. The VCHIP program allows obstetric practices to focus appropriately on improving the quality and efficacy of the PNC services they offer- just what is needed to improve reproductive outcomes in the United States today.

I strongly endorse the Vermont Child Health Improvement Program: Improving Prenatal Care in Vermont; it is an excellent PNC quality improvement initiative. I command obstetric practices to participate in its evolving programs, and to use this excellent Toolkit. It will enhance the quality, efficacy and effectiveness of your practice – and improve the health and well being of your women and fetal clients, and ultimately women and infants throughout the United States.

Milton Kotelchuck, PhD, MPH
January 2006



The following organizations developed and facilitated the Collaborative and this toolkit:

The *Xgto qpv'Ej kf "J gcnj "K rtqxo gpv'Rtqi tco "X EJ R+* is a population-based child health services research and quality improvement program of the University of Vermont College of Medicine. VCHIP's mission is to optimize the health of Vermont's children by initiating and supporting measurement-based efforts to enhance private and public child health practice. VCHIP provides an established mechanism for Vermont's clinicians to continually improve the care they offer children and families throughout Vermont, and supports clinicians in their efforts by providing tested tools and techniques to improve care for specific populations.



The *Wpkxgt ukf "qhl'Xgto qpv'Eqmgi g'qhl'O gf kelpg* in alliance with Fletcher Allen Health Care, has as its mission to render the most compassionate and effective care possible, to train new generations of caring physicians in every area of medicine, and to advance medical knowledge through research. They serve – and learn from – the community.



The following organizations funded and assisted in the development of the Collaborative and this toolkit:

The March of Dimes is a national voluntary health agency whose mission is to improve the health of babies by preventing birth defects, premature birth and infant mortality. Founded in 1938, the March of Dimes funds programs of research, community services, education, and advocacy to save babies and in 2003 launched a campaign to address the increasing rate of premature birth.



The Collaborative was funded in part by a grant from the March of Dimes. Representatives from the March of Dimes Vermont Chapter were lead partners in the development of the Collaborative. In addition, March of Dimes national and local representatives have assisted in the review of clinical content. All materials are for information purposes only and do not constitute medical advice. The opinions expressed are those of the author(s) and do not necessarily reflect the views of the March of Dimes.

The *Xgto qpv'Fgrctvo gpv'qhl'J gcnj au* vision is to have the nation's premier system of public health, enabling Vermonters to lead healthy lives in healthy communities. The Department of Health is proud to continue a long tradition of public health service and commitment to excellence in maternal and child health services in Vermont. As the



State's lead agency for public health policy and advocacy, the Department developed a plan known as *J gcnj { 'Xgto qpvgtu 4232'* that includes six measurable maternal, infant and child health objectives related to improving pregnancy outcomes. The Collaborative is funded in part by the Vermont Department of Health. Representatives from the Vermont Department of Health have participated in clinical content development.

The Collaborative was developed in partnership with:

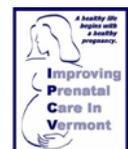
The *Pcvkpcn'Kpkcvkxg'ht 'Ej kf tgpau'J gcnj ect g'S wcrkf "P E J S +* is an education and research organization dedicated solely to improving the quality of health care provided to children. Founded in 1999, NICHQ's mission is to eliminate the gap between what is and what can be in health care for all children. NICHQ raises awareness, helps clinicians and practices improve care, and undertakes research.



Fctvo qwj "O gf kecn'Uej qqr'l's dedicated to advancing health through the dissemination and discovery of knowledge. Their chief responsibility is to select students of exceptional character and accomplishment and prepare them to become superb and caring physicians, scientists and teachers. They are committed to:



- Education of health professionals in an environment of discovery
- Research that advances health
- Formulation of health policies in the interest of their citizens
- Service with their partners to maintain Dartmouth-Hitchcock Medical Center as a local, regional and national resource for health care of the highest quality



ACKNOWLEDGEMENTS

Project Team

Peter Cherouny MD
Professor, Department of Obstetrics and Gynecology,
University of Vermont
Chair, Quality Assurance and Improvement Committee,
Women's Health Care Service,
Fletcher Allen Health Care
Project Chair IPCV

Jennifer Ustianov BSN RN
Project Director VCHIP

Annette Rexroad PhD MPH
Improvement Advisor VCHIP

Rachael Beddoe BA
Project Manager VCHIP

Jaime Gagnon BS
Project Coordinator VCHIP

Planning Group and Faculty

Patricia Berry MPH
Director, Division of Community Public Health
Vermont Department of Health

Eleanor "Sissy" Capeless MD
Director Maternal Fetal Medicine
Fletcher Allen Health Care
Professor of Obstetrics and Gynecology
University of Vermont
Project Co-Chair

Michele Finn MBA
Manager of Chapter Grants
March of Dimes

Kathleen C. Keleher CNM MPH
Acting Director of Public Health Nursing
Vermont Department of Health

Milt Kotelchuck PhD MPH
Professor & Chair
Maternal and Child Health Department
Boston University School of Public Health

Michele R. Lauria MD MS
Associate Professor
Obstetrics and Gynecology & Radiology
Dartmouth Hitchcock Medical Center
Project Co-Chair

Charles Mercier MD
Associate Professor of Pediatrics
University of Vermont
Neonatologist Vermont Children's Hospital

Michele Monagas
Director of Program Services
March of Dimes VT Chapter

Anneke Pribis MD
Formerly with Colchester Family Practice

Lisa Richardson MS RD LDN
Nutrition Consultant
North Carolina Division of Public Health

Sherry Rhynard
State Director
March of Dimes VT Chapter

Judith Shaw RN MPH
Research Assistant Professor of Pediatrics
University of Vermont
Executive Director VCHIP

Leonard Tremblay MD
Healthy First

Kristen Werner CNM
Maitri Health Care for Women



Other Contributing Members

Lisa Horvitz SM
Project Manager NICHQ
Cambridge Health Alliance

Jennifer Jewiss EdD
Department of Education
University of Vermont

Leslie Loeding MS
Improvement Advisor NICHQ
Center for Care Innovation and Research
Children's Hospitals and Clinics of Minnesota

Sharnel Martelle
Project Coordinator VCHIP

Kim Paul BSN RN
Project Director VCHIP

Lloyd Provost MS
Associates in Process Improvement

Christine Zanfini Parker MA
Former Director of Program Services
March of Dimes VT Chapter
Current Director
Advocacy American Heart Association

Participating Collaborative Teams

**Bradford Health Service
Bradford, Vermont**
Annie Kidder RN
Melanie Lawrence MD
Catherine Smith LPN
Cheryl Thornton

**James D. Cahill, M.D., Obstetrics & Gynecology
Springfield, Vermont**
James Cahill MD

**Champlain Obstetrics & Gynecology
Essex Junction, Vermont**
Deb Haight LPN
Lisa Kelley CNM

**Dartmouth-Hitchcock Medical Center OB/GYN
Lebanon, New Hampshire**
Louise Carpenter RN
Tina Foster MD MPH
Deb Miller CNM MPH

**Gifford OB/GYN and Midwifery
Randolph, Vermont**
Brent Burgee MD
Sheila Coogan LPN
Martha Redpath CNM

**Claire M. Lintilhac Nurse-Midwifery Service
Fletcher Allen Health Care
Burlington, Vermont**
Amy Levi CNM PhD

**Maitri Health Care for Women
Burlington, Vermont**
Julia Brock MD
Kristine Werner CNM
Cathleen Bruni-Foraud BSN RN

**Milton Family Practice
Milton, Vermont**
John G. King MD
Sandra Rasco RN
Holly Vanwinkle RN
Joshua Welsh MD

**Leonard Tremblay MD, Healthy First
St. Albans, Vermont**
Leonard Tremblay MD
Martha O'Connell LPN
Megan Branon

**Vermont Perinatal Care
Fletcher Allen Health Care
Burlington, Vermont**
Peter Cherouney MD
Anne Hall RN
Jean Henry RN



Additional Expert Meeting Attendees

Donna Bister

Vermont Department of Health, Division of Public Health, Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

Peggy Brozicevic

Vermont Department of Health
Division of Health Surveillance

Marshall Carpenter MD

Women & Infants Hospital Maternal Fetal Medicine

Karla Damus BSN PhD

March of Dimes
Albert Einstein College of Medicine

Siobhan Dolan MD

March of Dimes
Albert Einstein College of Medicine

Paula Duncan MD

VCHIP
University of Vermont

Janice French CNM MS

Cedars-Sinai Medical Center
Los Angeles Best Babies Collaborative

Cecelia Gaffney MEd

Dartmouth Hitchcock Medical Center (DHMC)

Karen Garbarino

Vermont Department of Health, Tobacco Control Program

Cindy Ingham RN

Vermont Department of Health, Children with Special Health Needs

Sally Kerschner RN MSN

Vermont Department of Health,
Division of Health Improvement

Patty Launer RN

Vermont Program for Quality in Health Care (VPQHC)

Marilyn Proulx MPH

Vermont Department of Health, Division of Health Surveillance STD Program

Martha Rome BSN MPH

NYC Department of Health and Mental Hygiene
Clinical Systems Improvement

Susan Shepard RN MSN

Vermont Department of Health, Healthy Babies, Kids, & Families Program

Betsy Shuey LICSW MS

Vermont Department of Health, Division of Public Health Maternal Child Health Unit

Diane Smith LADC

Vermont Department of Health, Office of Alcohol and Drug Abuse

Robert Sokol MD

C.S. Mott Center for Human Growth and Development, Wayne State University School of Medicine, Perinatology Research Branch of NICHD

Laura J. Solomon PhD

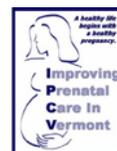
University of Vermont Department of Psychology
Robert Wood Johnson Foundation National Program
Office of Smoke-Free Families

Special Thanks

Improving Prenatal Care in Vermont (IPCV) would like to acknowledge the support, experience and expertise of our Funders: the March of Dimes and the Vermont Department of Health. Their generous input and encouragement were indispensable. We also would like to thank the National Initiative for Children's Health Quality for their guidance, resources and expertise.

In addition we thank our partners: the March of Dimes Vermont Chapter and the national office, the Vermont Department of Health's Department of Prevention, Assistance, Transition and Health Access, the University of Vermont College of Medicine and Dartmouth Medical School.

This project would not have been a success without our participating prenatal care providers and their staff. As leaders and role models in the community, these practices continually demonstrated their ongoing commitment to learning, improving and delivering optimum prenatal care for their patients. It was no easy task for a busy practice to find the time and/or resources to fulfill the project responsibilities. The IPCV Team, Faculty and Funders are extremely proud and appreciative. We are privileged to have worked with these champions and leaders.



I) INTRODUCTION AND PURPOSE

The Improving Prenatal Care in Vermont (IPCV) Practice toolkit for improving prenatal care is designed to provide an outline of the mission, goals, methodology, and outcomes of a Learning Collaborative on prenatal care: Improving Prenatal Care in Vermont. IPCV was a three year project designed to improve prenatal care through a partnership with a national funder, the state health department, educational institutions and providers of prenatal care, with the ultimate goal of contributing to the efforts of decreasing the rate of low birth weight and preterm labor in the State of Vermont. The toolkit is designed to provide the active obstetric provider with “state of the art” recommendations for prenatal care as well as the means to track actual improvements in care. As the creators of this toolkit, our hope is that these tools can be used to incorporate current best practice recommendations as we strive to provide high quality care.

The Need to Improve Prenatal Care

A healthy start to life begins with a healthy pregnancy. Vermont's lead agency for public health policy and advocacy, the Vermont Department of Health, developed a plan known as *J gcnj { "Xgt o qpygtu"4232* that includes six measurable maternal, infant and child health objectives related to improving pregnancy outcomes. In 2001, 6.1% of babies born in Vermont had a low birth weight (5.5 pounds or less).¹ This was more than 20% above the *J gcnj { "Xgt o qpygtu"4232* goal of 5%. The last full year for which data is available, 2003, revealed a rate of 7.0% babies born with low birthweight,² indicating that the rate of low birth weight births has increased among Vermont women.

Furthermore, national data indicates that the rate of preterm birth (<37 weeks) in Vermont increased from 9.0% in 2002³ to 9.5% in 2003.⁴

While there are no existing randomized trials supporting exact causalities for preterm labor and low birth weight, women who give birth early and/or who give birth to low birth weight babies are less likely to have had early or adequate prenatal care. Providers can do their part by ensuring the provision of care that is reflective of current best practice knowledge.

However, while there is a sense that quality prenatal care in Vermont is the norm, there exist wide variations in the implementation of prenatal care guidelines despite published standards and evidence-based, prospective management strategies. In 2003, IPCV's preliminary evaluation of prenatal care in the State of Vermont indicated that greater than 10% of pregnant women in Vermont do not receive adequate prenatal care (as defined by the trimester of registration and the percentage of recommended prenatal visits received by a pregnant patient), the majority of pregnant women have inappropriate weight gain during pregnancy, and pregnant women smoke at a rate that is higher than the national average.² Furthermore, approximately half of pregnant patients insured by Medicaid, in Vermont, do not return for a postpartum visit.⁵ Finally, data collected from the participating practices indicated that many pregnant women are not well screened for depression, hepatitis, domestic violence, or flu vaccine candidacy.

Though adherence to current standards is important for the care of all pregnant women, research has demonstrated that it is particularly important for low income and/or vulnerable women, often insured by Medicaid,⁶ as this population tends to demonstrate a higher risk of poor pregnancy outcome.⁷

Current systems of care are not well designed to support the delivery of the highest quality care possible. The recent Institute of Medicine report, *Vq'Gt t 'ku'J wo cp* and *Et quikpi 'yj g'S wcrkv' Ej cuo*, revealed that variations in the delivery of health care are inherent properties of the current system design and that improvement in health care can only result from a redesign of the existing systems.

In order to positively affect outcomes in Vermont for pregnant women and their families, IPCV was designed to identify and present best practice prenatal guidelines to busy obstetric providers and assist them in incorporating these guidelines into their office systems. Recognizing the importance of timely, evidence-based prenatal care, and

*Cu'c'rcvkgpv'cf xqecvg. 'lqw'y cpv'vq'rtqxkf g'y'j g'dgw'ectg' {qw' ecpi y j gj gt 'lqw' g'ly q' {gct u'qw'qhl' gulf gpe' {qt '42' {gct u'qw: " tgeqo o gpf cvkqpu'ej cpi gOY g'at g'i gpgt cml' 'pqv'kp'c' 'r quk'kqp'vq" dg't ki j v'qp'vqr' qhl'y qug'ej cpi gu'o' uq'ceegr'v'y g'j gr O' Uqo gy j gt g'cru'pi 'y g'h'kg. 'uqo g'qpg'lt qo " {qwt 'rtcev'kg'ku'i qkpi " vq'j cxg'vq' i q'qmw'c'pf' i gv'y ku'kpl'qt o cvkq'pO'ku'i qkpi 'vq'eqw' {qw' vko g. 'pq'o c'wgt' j qy 'lqw'f' q'w'OVj ku'ku'c' i q'qf' 'y c' {vq' i gv'w' 'vq' ur g'g' 's'w'k'em'f. 'h'kpf' 'y g'y g'c'mp'gu'gu'y kj kp' {qwt 'rtcev'kg. 'c'pf' " d'w'h'h'y go 'w'OVj g'vko g'ku'y g'n'lu' g'p'o' *QDII [P.'c'ecf go ke'j gcnj 'egp'vgt -"*



the possibility of applying quality improvement methodologies tested with other health care providers in Vermont to improve prenatal care, the Vermont Child Health Improvement Program (VCHIP) applied for funding from the March of Dimes and the Vermont Department of Health. This funding was used to develop and implement this project aimed at improving the quality of prenatal care in Vermont. VCHIP built upon Vermont's history of strong public-private collaboration and commitment to addressing disparities in maternal/child health care at both the State and local level.

Thus, Vermont was well placed to embark on this important project. Ten prenatal care providers demonstrated their commitment to this need by participating in this rewarding collaboration. Now, at the end of the project, we are ready to disseminate the results and lessons learned in the hopes that the information will be embraced by all prenatal care providers across the state to improve maternal and newborn outcomes in Vermont.

IPCV Project Goals

1. Contribute to efforts to decrease the rate of preterm delivery and low birth weight in Vermont
2. Develop a practice-level measurement tool (based on the prenatal care standards) to assess practice performance in the delivery of prenatal services to women
3. Assess levels of adherence to the prenatal care standards at baseline and perform monthly assessments based on improvement strategies throughout the duration of the project
4. Achieve a relative improvement of 20% in each practice in one or more of the following areas:
 - Diabetes
 - Nutrition and appropriate weight gain
 - STI screening
 - Smoking cessation
 - Genetic screening and counseling

¹ Vermont Department of Health. State of Vermont 2001 Vital Statistics. 117th report.

<http://www.healthyvermonters.info/hs/vital/2001/toc.shtml>

² Vermont Department of Health. State of Vermont 2003 Vital Statistics.

<http://www.healthyvermonters.info/hs/stats/VSB2003/TOC.shtml>

³ Births: Final data for 2002. National Vital Statistics Reports; vol. 52 no. 2. Hyattsville, MD: National Center for Health Statistics. 2004.

http://www.cdc.gov/nchs/data/nvsr/nvsr52/nvsr52_10.pdf

⁴ Births: Final data for 2003. National Vital Statistics Reports; vol. 52 no. 2. Hyattsville, MD: National Center for Health Statistics. 2005.

http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54_02.pdf

⁵ Personal Communication. Cherouney P, Vermont Department of Health and Vermont Obstetrics Providers Data.

⁶ CDC Pregnancy Nutrition Surveillance System, 2003

⁷ Buescher PA, Method of Linking Medicaid Records to Birth Certificates May Affect Infant Outcome Statistics, AJPB April 1999, vol. 89



II) METHODS

The Framework

IPCV worked with participating prenatal care providers to develop and implement practice changes that enhanced pre-pregnancy and prenatal risk assessment, pregnancy care delivery, case management and education services. We chose to tackle these issues through an innovative approach of working with providers of prenatal care to redesign their care systems to improve their adherence to the accepted standards of prenatal care, thereby improving health care delivery. At the heart of this new approach are three models:

- The **Learning Model** that makes obstetricians, nurse midwives, and family practice physicians part of a network of experts and fellow-learners
- A **Care Model** that outlines all of the elements of good patient-centered prenatal care
- An **Improvement Methodology** that enables teams to rapidly test and implement changes to improve care

The **Learning Model** used in the IPCV Collaborative is adapted from the Breakthrough Series⁸, a Collaborative Model developed by the Institute for Healthcare Improvement (IHI) in the mid- 90s. The Breakthrough Series (BTS) was created to help health care organizations make "breakthrough" improvements in quality while reducing costs. A BTS Collaborative is a short- term (6- to 15-month) learning process that brings together a large number of teams from health care provider practices, hospitals and/or clinics to seek improvement in a focused topic area. It is a structure in which interested organizations can easily learn from each other and from recognized experts in topic areas where they want to make improvements. The driving vision behind the BTS is that sound science exists on the basis of which the costs and outcomes of current health care practices can be greatly improved, but much of this science lies fallow and unused in daily work. In other words, there is a gap between what we know and what we do.

A unique **Care Model** was developed for IPCV: The Three- Tiered Approach to Care. The Three-Tiered Approach defines quality best practice prenatal care as having three essential steps:

1. **Assessment and/or Screening**
2. **Intervention**
3. **Follow-up**

The content of each tier is based on current standards in prenatal care and builds on the information obtained in the prior tier.

The Model for Improvement, developed by Associates in Process Improvement, (<http://www.apiweb.org>), is a simple yet powerful tool for accelerating improvement. This model has been used successfully by thousands of health care organizations around the world, in many countries, to improve many different health care processes and outcomes. In general, the Improvement Model defines how to test and implement changes rapidly and efficiently.

The model has two important steps toward implementing sustainable improvements:

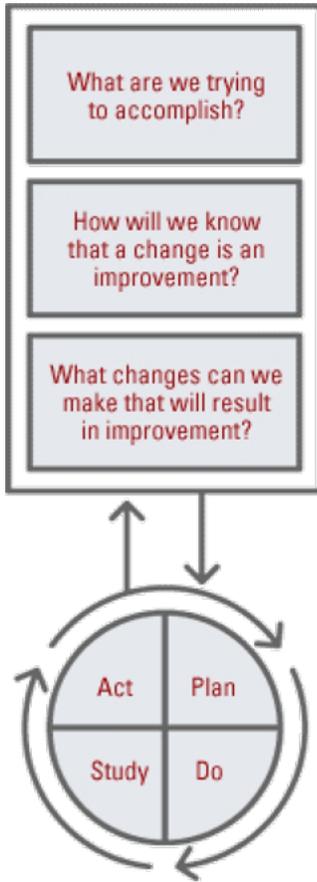
The First Step: Ask three fundamental questions:

1. What are we trying to change? This written statement sets an aim for the work.
2. How will we know that the change is an improvement? This establishes a method of measuring the changes.
3. What changes can we make that will result in an improvement? This prompts testing the change.

The Second Step: Plan-Do-Study-Act (PDSA) cycles are a tested practical method for initiating testing, measuring and implementing the changes. The PDSA cycle guides the test of a change to determine if the change is actually an improvement.

⁸ Langley G., Nolan K., Nolan T., Norman C., Provost L. The Improvement Guide: A Practical Approach to Enhancing Organizational Performance. Jossey-Bass Publishers; San Francisco. 1996.





Setting Aims
Improvement requires setting aims. An aim is a written statement summarizing what your practice’s team hopes to achieve. The aim should be time-specific and measurable; it should also define the specific population of patients that will be affected.

Establishing Measures
Measures play an important role in a team’s efforts to improve care: These measures tell the team whether a change made actually leads to improvement. Remember that measurement should be designed to accelerate improvement, not slow it down. A team wants to make sure to integrate measurement into the daily routine of obstetrical care. **You only want enough measurement to answer the question, and no more.**

Testing Changes
All improvement requires making changes, but **not all changes result in improvement.** Therefore organizations must identify the changes that are most likely to result in improvement.

Testing Changes
The Plan-Do-Study-Act (PDSA) cycle is a method for testing a change quickly in the real work setting to see how it works – by planning it, trying it, observing the results, and acting on what is learned. Teams repeat these cycles until the change is ready for broader implementation.

The Framework Applied to Prenatal Care

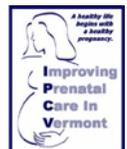
IPCV was the first project in the nation to use the BTS model as a means to improve prenatal care. VCHIP assembled a Project Team that assisted practice teams to make improvements in their office systems by providing individual and group training, customized tools, and ongoing support. Ten teams committed to a 15-month process that included attending three, day-long trainings, called Learning Sessions, lead by a diverse national and local faculty of obstetricians, pediatricians, family practice physicians, academicians, and researchers. Learning Sessions addressed the need for specific, well-timed assessments in the outlined topic areas and the identification of those at-risk for poor outcomes, and suggested effective interventions and follow-up strategies. Together, practice team members reviewed clinical content from current literature and expert sources, learned practical methodology to implement changes in their office systems, and were taught to gather data to monitor progress towards improvements.

During Action Periods (the time between Learning Sessions), practice teams devoted time and resources to testing and implementing changes within their office systems while collecting and reporting monthly data in order to monitor whether these changes resulted in the desired improvement. They also received regular feedback, coaching, and encouragement from the IPCV Project Team through emails, site visits, and one-on-one phone calls designed to help them spread improvements throughout their care system. Teams participated in a project email distribution list (Listserv), a web-based project and data management tool (Extranet), a series of conference calls, and project close-out interviews.

*Vj g'Ngct plpi "Uguukapu'i kxg"l qw'c "dt qcf gt"
r kewt g'eqo r ct gf "u'yj g'kpl. "hkwng'y qt rf "qhl{ qwt"
rt cevek g0Vj cvai'xgt l "xcmcdrg"cpf "o qv'xc vki 0'
Olf y klg. "twt cn'QD'rt cevek g+"

Through collaboration with our partners and careful consideration to current research and National and State-wide statistics, goals for improvement were set for this project. These goals provided a compass for our work.

*Ego rct kpi 'pqvgu'y kj 'f khtg gpv'rt cevek g'ut'kpxcmcdrg0'
QDII [P."cecf go ke'j gcnj "egpvt +



III) EXPERT GUIDANCE

The Changes

We built our project on a solid foundation of research, review of current literature, and consultation with experts in the field of prenatal care. The first step in developing practical changes that would result in improvements was to develop a project charter. The charter articulated the gap between current care and optimal care, reviewed Vermont’s prenatal care statistics, stated the project’s mission, described the benefits of undertaking improvement work, presented potential outcome and process measures, and set expectations for participating teams.

The Experts

With a draft charter as a guide, we convened a panel of leading national and local experts for an intensive one day meeting: **The Expert Meeting**. The purpose of The Expert Meeting was to:

- **challenge** the validity of the charter and the feasibility and specificity of its proposed changes towards the intended outcomes
- **identify** specific changes that participating teams needed to undertake to achieve breakthrough improvement
- **discuss** the evidence, hear expert opinion, and refine the underlying conceptual framework for the project

We identified one expert for each of the 6 topic areas plus additional topic areas that evidence suggested should also be considered. A total of 7 national experts and several regional and local experts attended. Representatives from state-level programs related to prenatal care, national and local collaborators, our funders, and observers were also invited to attend and contribute.

We began our Expert Meeting with a plan to examine 6 areas:

- | | |
|------------------------|--|
| diabetic screening | substance abuse |
| nutritional counseling | genetic and preterm risk assessment and counseling |
| STI screening | |
| smoking | |

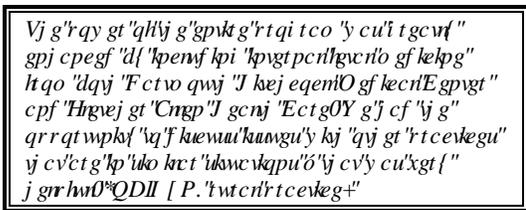
The meeting was adjourned with evidence and consensus to support the need to add several more topic areas:

- | | |
|---------------------------|---------------------|
| depression | periodontal disease |
| intimate partner violence | influenza |

The output of the **Expert Meeting** was translated into practical strategies that could be implemented at a practice level, including best practice guidelines, change concepts for the delivery of optimum care, and a measurement strategy for implementation in a practice setting. This was accomplished with the assistance of a **Planning Group**, the primary advisory body throughout the Collaborative. Content experts and representatives from the three sectors of the target audience who would provide the practice perspective (obstetrics, family practice, and certified nurse midwifery) were invited to become members of our Planning Group. The Planning Group gave careful and thorough consideration to each of the topic areas, tools, and recommendations identified at the Expert Meeting and provided feedback to the Project Team as they synthesized this information into a cohesive set of changes that practice teams could implement to improve prenatal care and ultimately birth outcomes in Vermont (see Topic Areas for Improvement, Section VII).

The Participants

All prenatal care providers in Vermont communicating a commitment to improvement were invited to join IPCV. We anticipated it might be more challenging for smaller practices to see real improvement because they see fewer patients but we felt it was important to be inclusive. Thus, ten practices from a variety of geographical and demographic areas across Vermont joined the Collaborative. It was also coincidental and advantageous to have successfully recruited at least one practice from each of the category of prenatal care provider: obstetricians, family practice physicians, and certified nurse midwives.



IV) MEASUREMENT

Measurement is the primary indicator of change used in this Collaborative. Participating teams use this data to track the implementation of changes in their office systems, to determine whether patients receive appropriate prenatal care interventions, and to monitor progress over time. Thus measurement informs the improvement processes at the practice and Collaborative levels.

The key measures of an improvement project should be focused so as to capture and report on the real changes being implemented. It's important to keep in mind the primary goal of measurement is to inform the improvement process and tell us something about the effect our changes are having on the patient's health and her experience of the overall system of care. Our measurement strategy during this Collaborative, specifically data collection requirements and submission methods, were adjusted several times to accommodate the needs of the participating teams. This flexibility was critical to maintaining team engagement throughout the Collaborative.

IPCV designed a specific measurement strategy that would allow participants to track the implementation of the Three-Tiered Approach (assess and/or screen, intervene and follow-up) for each prenatal care topic area. It should be

*Klj kpmly gt g'ly qwf "dg'qpg'r gt uqp'r gur qpukdr'lt "eqmgevpi 'lj g"
 f c w "o'f'qw'lwu'j cxg'ly'o eng'c'eqo o ko gpv'cu'cp'qllkeg'cpf 'uc'f"
 yj ku'ku'ko rqt wcpv'gpqwi j 'ly'wu'ly cv'y g'g'i qkpi 'ly'rcl'j gt'qwt"
 ucrc'f'lt 'ly cv'r gt kqf "qllko g0"O kf y klg. "wt dcp'r tcevege+'*

noted that IPCV did not choose to collect data on all three tiers for every topic area. The measures were targeted to promote improvement where a gap in the current level of care and best practice recommendations existed, and where changes could reasonably be implemented. For example, intervention for Chlamydia and Gonorrhea through treatment is an essential part of care. However, we did not track whether those with Chlamydia and Gonorrhea were treated because the baseline data from our practice teams indicated there was little need for improvement for this particular service. Rather, we targeted a re-screen of the at-risk population. Regarding Hepatitis B, since initial participant data indicated that 91% of participating practice teams currently offered the Hepatitis B surface antigen routinely, IPCV decided not to include Hepatitis B in measurement activities. Conversely, 45% of the practice teams offered Cystic Fibrosis screening. Since new guidelines emphasized the need for Cystic Fibrosis Screening⁹, practices were asked to track their rate of Cystic Fibrosis screening in at-risk populations.

Data analysis and feedback were integral components of the measurement strategy. On a monthly basis, teams either faxed their data collection forms to VCHIP or posted them to a web-based data management tool called the Extranet. IPCV staff cleaned, and analyzed the data, and created run charts (examples follow) that were presented to teams at the training sessions (Learning Sessions) and site visits. Additional data collection tools used in this Collaborative are also included in this toolkit, the *Rtcevege'Ugrh'Cuuguuo gpv'Uwt.xgl* and *Rcvkppv'Uc'vku'c'evkqp'Uwt.xgl*.

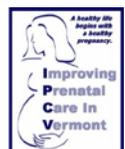
The following is a list of Data Collection activities.

Ngctpkpi 'Uguukqp'3'Rtg/y qtn'

- Purpose: to gather baseline data on practice delivery of prenatal care services and participating practice demographics
- Timing: sent to each team leader directly after being accepted into the Collaborative, prior to the first training session

Rtcevege'Ugrh'Cuuguuo gpv'Uwt.xgl'

- Purpose: to gather initial data on routine prenatal services currently being provided at participating practices so as to provide the Project Team with knowledge about what aspects of care needed specific attention during the Collaborative
- Timing: sent to each team leader directly after being accepted into the Collaborative, prior to the first training session



O qpvj r' Fcx' Eqmgevkap"

- Purpose: to collect data on practices' rate of assessment, intervention with appropriate treatment, and follow-up for the topic areas (teams were asked to submit data on a minimum of 10 medical records of patients who came in for their 1st prenatal visit that month and a minimum of 10 medical records of patients who came in for their 34 week visit that month)
- Timing: monthly data collection occurred from initial team enrollment and proceeded for 13 months of data collection

"

O qpvj r' Tgrqtvu"

- Purpose: Monthly reports, using the PDSA cycle template, asked teams to indicate which topic area they were currently working on and to detail specific information about who, what, where, and how the change was being implemented
- Timing: Monthly, for 12 months following the first training session

Rcvkpv' Uvkvtr evkap' Umtxgl"

- Purpose: to assess patient satisfaction with the delivery of prenatal care services - a “balancing measure” to ensure that improvements in one component of care do not negatively impact other components of prenatal care
- Timing: Monthly for 12 months following the first training session

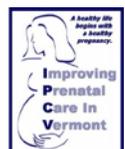
Kpf kxf wcnVgc o' Kpvtxkgy u"

- Purpose: since IPCV was the first-ever Learning Collaborative among providers of prenatal care, we wanted to hear from participants firsthand the challenges, barriers, and successes they experienced from participating in the Collaborative
- Timing: implement at the completion of the Collaborative activities

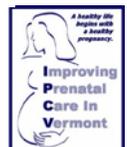
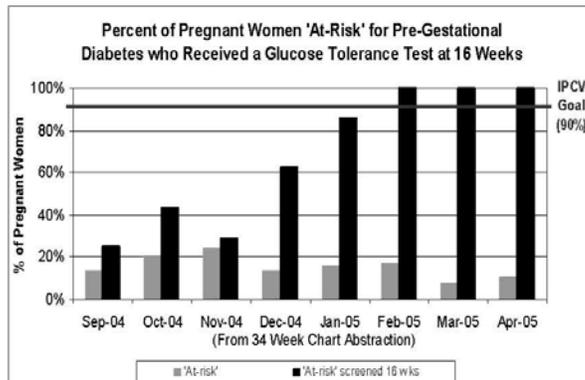
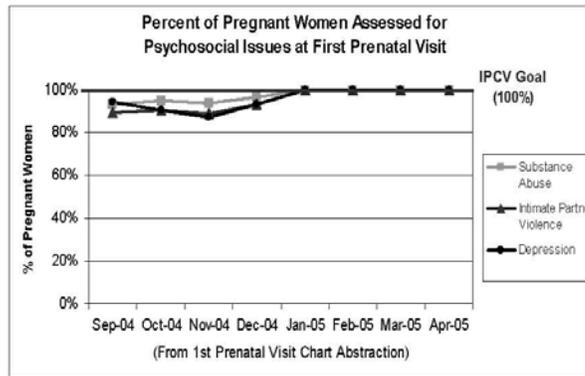
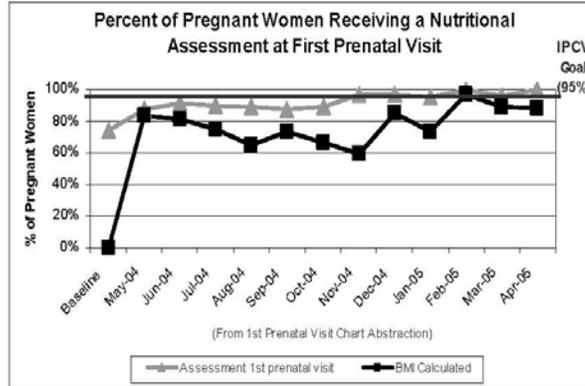
The Practice Self-Assessment Survey and Patient Satisfaction Survey can be found in this Toolkit. All data collection surveys and tools can be accessed at www.vchip.org.

Data resulting from practice data collection were used to create run charts that would illustrate improvement over time. The run charts presented here are examples that reflect marked improvement in three areas: nutritional assessment, pre-gestational diabetes screening, and psychosocial/behavioral assessment in the first trimester.

⁹Health Resources and Services Administration. Newborn Screening: Toward a Uniform Screening Panel and System. March 2005, vol 70, no 44. <http://mchb.hrsa.gov/screenig>



IPCV Run Charts Indicating Improvement



V) EXPERT RESOURCES

Other efforts to create a State-wide standard of prenatal care exist in Vermont. Collaboration between VCHIP, the Vermont Department of Health, Vermont hospitals, and multiple prenatal and perinatal experts resulted in a set of standards called the Vermont Perinatal Guidelines. We've included these guidelines as an additional resource for Vermont practices.

Process for the Establishment of Vermont Perinatal Guidelines

Project directed by Eleanor Capeless, MD; (802) 847-5066

1. Review of 2001 published guidelines for Perinatal care included

The American College of OB/Gyn
The Society of Obstetricians and Gynecologists of
Canada The American College of Nurse Midwives
The Academy of Family
Practice State of Georgia
Health insurer recommendations
The Institute for Clinical System Improvement Health Care Guidelines

2. Consensus summary document including all recommendations was prepared

3. Formation of a review committee with providers from each hospital to read and form primary review Committee members were:

Hector (Artie) Carrasquillo MD, Chief of OB, Brattleboro Memorial
Hospital John B. Coates III MD, Chief of OB, Central Vermont Medical
Center William Ellis MD, Chief of OB, Gifford Hospital
William Peck MD, Chief of OB, North Country Hospital
Keith Fortier MD, Chief of OB, Northeastern Vermont Regional
Hospital James Malcolm III MD, Chief of OB, Porter Hospital
Patrick Keenan MD, Chief of OB, Rutland Regional Medical Center
Ellen Biggers MD, Chief of OB, Southwestern Vermont Medical
Center Robert Johns MD, Chief of OB, Springfield Hospital
John Fogarty MD, Chief of Family Practice, Fletcher Allen Health
Care Fred Rossman MD, Chief of OB, Copley Hospital
Leonard Tremblay MD, Chief of OB, Northwestern Medical
Center Kevin Rodgers MD, Family Practice, Fletcher Allen Health
Care Kristen Werner CNM, President Vermont CNM Chapter
Patricia Berry, MPH, Director, Division of Community Public Health, Vermont Department of
Health Allison Surks CNM, MPH, Vermont Department of Health
Judy Shaw, RN MPH, Vermont Child Health Improvement
Barry Smith, MD, Dartmouth Hitchcock Hospital
Cy Jordan, MD, Vermont Program for Quality in Health Care
Eleanor Capeless MD, Director, Maternal Fetal Medicine, Fletcher Allen Health
Care Mary Ingvoldstad RN, Vermont Regional Perinatal Program Nurse Educator
Michele Lauria MD, Dartmouth-Hitchcock Medical Center

4. VBAC consensus conferences held. Hospital protocols and patient information sheets prepared and distributed to hospitals, 2002-2003

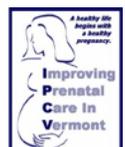
5. Drafts were sent to committee and then suggestions incorporated, 11/2001- 11/2003

6. Final draft sent to all health care providers in the state, 11/03

7. Comments incorporated as appropriate (see list of comments)

8. Revised document sent, 4/2004

9. Final document sent to Patricia Berry, MPH. Director of Community Health, Vermont Department of Health, 8/2004



Prenatal Care Guidelines

*Requires Patient Consent

Visit Weeks 1-8

| Recommendation | Visit 1 (6-8 wks) | Visit 2 (10-12 wks) | Visit 3 (16-18 wks) |
|--|--|--|--|
| History | <input type="checkbox"/> Age at delivery <input type="checkbox"/> LMP <input type="checkbox"/> Menstrual hx <input type="checkbox"/> OB hx (detailed record of all past pregnancies) <input type="checkbox"/> Gvn hx (STI's, sexual hx, BCM used) <input type="checkbox"/> Hx medical problems <input type="checkbox"/> Eating disorders <input type="checkbox"/> Hx psychiatric disorders (especially depression) <input type="checkbox"/> Current/past meds (PNV/other) & herbal supplements <input type="checkbox"/> Blood transfusions <input type="checkbox"/> Hx of varicella, TB <input type="checkbox"/> Surgeries/anesthesia <input type="checkbox"/> Trauma <input type="checkbox"/> Allergies/latex <input type="checkbox"/> Social history: housing (where/who/how many) pets, lead <input type="checkbox"/> Diet/Exercise habits | <input type="checkbox"/> Parental/family history/genetic hx <input type="checkbox"/> Ethnic background <input type="checkbox"/> Marital status/relationship <input type="checkbox"/> ETOH/drugs <input type="checkbox"/> Smoking (past, present, future plans) <input type="checkbox"/> Intimate Partner Violence <input type="checkbox"/> Physical abuse <input type="checkbox"/> Work, Stress <input type="checkbox"/> Environmental hazards <input type="checkbox"/> Seatbelt use <input type="checkbox"/> Current Symptoms | <input type="checkbox"/> Current symptoms <input type="checkbox"/> Quickening? |
| Labs/ Ultrasounds | <input type="checkbox"/> Hct/Hgb <input type="checkbox"/> ABO/Rh/Ab <input type="checkbox"/> Rubella <input type="checkbox"/> Hep B Ag <input type="checkbox"/> RPR <input type="checkbox"/> HIV* <input type="checkbox"/> Cystic Fibrosis offered <input type="checkbox"/> Urine screen/culture <input type="checkbox"/> Pap <input type="checkbox"/> GC/Chlamydia | WHEN INDICATED BY HX <input type="checkbox"/> Tay Sachs <input type="checkbox"/> Glucose screen <input type="checkbox"/> Hgb electrophoresis <input type="checkbox"/> Wet Prep/nitrazine <input type="checkbox"/> Early dating U/S <input type="checkbox"/> Other PRN hx (HSV, toxoplasmosis antibody, hepatitis C, parovirus antibody) | <input type="checkbox"/> Quad/triple screen per pt's request <input type="checkbox"/> Ultrascreen information if available <input type="checkbox"/> Genetic Counseling <input type="checkbox"/> Early GCT if indicated <input type="checkbox"/> Ultrasound (18+ wks) if indicated <input type="checkbox"/> Detailed anatomic/genetic ultrasound screen if indicated by maternal history |
| Immunization & Chemoprophylaxis | <input type="checkbox"/> PPD if indicated | | <input type="checkbox"/> Influenza vaccine during flu season |
| Physical Screening | <input type="checkbox"/> Height, BMI, dental, skin (tattoos, piercing), thyroid, chest & cardiovascular, breasts and nipples, abdomen, lymph, extremities, reflexes, edema assessment, skin, bimanual for uterine size and adrexal findings, clinical pelvimetry, cervix (length, consistency), os status <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal heart tones if GA appropriate | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal heart tones if GA appropriate <input type="checkbox"/> Fundal height | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal heart tones if GA appropriate <input type="checkbox"/> Fundal height |

Prenatal Care Guidelines

*Requires Patient Consent

| Recommendation | Visit 1 (6-8 wks) Cont. | Visit 2 (10-12 wks) Cont. | Visit 3 (16-18 wks) cont. |
|--------------------------|--|--|---|
| Patient Education | <ul style="list-style-type: none"> <input type="checkbox"/> Visit schedule <input type="checkbox"/> Practice overview <input type="checkbox"/> Dating & EDC <input type="checkbox"/> #'s to call/emergency #'s-how to contact provider <input type="checkbox"/> Community resources <input type="checkbox"/> Dental care <input type="checkbox"/> PE & psychological changes of pregnancy <input type="checkbox"/> Fetal growth/development <input type="checkbox"/> Advice on books i.e. Path to Parenthood | <ul style="list-style-type: none"> <input type="checkbox"/> Review labs/action on abnormal tests <input type="checkbox"/> Fetal growth/movement expectations <input type="checkbox"/> Review U/S report if early U/S done. Explain clearly changes in EDC if indicated | <ul style="list-style-type: none"> <input type="checkbox"/> Quickening <input type="checkbox"/> Round ligament pain <input type="checkbox"/> Review of common symptoms |
| Counseling | <ul style="list-style-type: none"> <input type="checkbox"/> HIV counseling <input type="checkbox"/> Smoking/ETOH/drugs <input type="checkbox"/> Nutrition-refer if appropriate (goals/expectations) <input type="checkbox"/> Fish information/listeriosis <input type="checkbox"/> Exercise/Sex <input type="checkbox"/> Environmental hazards <input type="checkbox"/> Pets <input type="checkbox"/> Travel <input type="checkbox"/> Medication counseling <input type="checkbox"/> Seatbelt use/sports helmets <input type="checkbox"/> 1st trimester warning signs, comfort measures <input type="checkbox"/> Sibling adjustment <input type="checkbox"/> Genetic referral PRN <input type="checkbox"/> WIC/Healthy Babies <input type="checkbox"/> Support Group Referrals <input type="checkbox"/> Folic Acid <input type="checkbox"/> Financial Counseling | <ul style="list-style-type: none"> <input type="checkbox"/> Discuss trisomy screening (ultrascreen, quad marker testing) <input type="checkbox"/> Discuss and review CVS/amniocentesis if indicated <input type="checkbox"/> Discuss fetal survey u/s <input type="checkbox"/> Smoking, etc. PRN | <ul style="list-style-type: none"> <input type="checkbox"/> Body Mechanics <input type="checkbox"/> 2nd trimester warning signs <input type="checkbox"/> Specific discussion regarding signs/symptoms of premature labor <input type="checkbox"/> Comfort measures |

Prenatal Care Guidelines

*Requires Patient Consent

Visit Weeks 22-32

| Recommendation | Visit 4 (22 wks) | Visit 5 (28 wks) | Visit 6 (30-32 wks) |
|--|--|--|--|
| History | <input type="checkbox"/> Current symptoms <input type="checkbox"/> Fetal movement, leakage of fluid, vaginal bleeding, contractions | <input type="checkbox"/> Reassess risk of STI's <input type="checkbox"/> ABO/Rh status (review) <input type="checkbox"/> Fetal movement, leakage of fluid, vaginal bleeding, contractions | <input type="checkbox"/> Current symptoms <input type="checkbox"/> Fetal movement, leakage of fluid, vaginal bleeding, contractions |
| Labs/Ultrasounds | <input type="checkbox"/> Urine culture screen if hx indicates | <input type="checkbox"/> GCT <input type="checkbox"/> CBC <input type="checkbox"/> Antibody screen if Rh neg <input type="checkbox"/> HIV*/GC/Chlamydia if mother at risk | |
| Immunization & Chemoprophylaxis | | <input type="checkbox"/> Rhogam if needed | |
| Interval Screening | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal Heart tones <input type="checkbox"/> Fundal height | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal Heart tones <input type="checkbox"/> Fundal height <input type="checkbox"/> Assess for edema <input type="checkbox"/> Cervical exam if needed | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal Heart tones <input type="checkbox"/> Fundal height <input type="checkbox"/> Assess for edema |
| Patient Education | <input type="checkbox"/> Review fetal survey findings <input type="checkbox"/> Review genetic tests <input type="checkbox"/> Childbirth classes | <input type="checkbox"/> Infant care provider <input type="checkbox"/> Breast/bottle feeding <input type="checkbox"/> Review of common symptoms <input type="checkbox"/> Anatomy/Physiology review <input type="checkbox"/> Hospital Pre-Admission <input type="checkbox"/> Anesthesia services | <input type="checkbox"/> Circumcision-pros and cons <input type="checkbox"/> Car seat importance <input type="checkbox"/> Birth plan, questions re: medications <input type="checkbox"/> Sibling preparations |
| Counseling | <input type="checkbox"/> Discuss GDM & GCT for next visit <input type="checkbox"/> PTL signs/symptoms | <input type="checkbox"/> 3 rd trimester warning signs <input type="checkbox"/> Review of PTL signs/symptoms <input type="checkbox"/> Supports available: Intimate Partner Violence screening <input type="checkbox"/> Fetal activity review | <input type="checkbox"/> Review specific to Preeclampsia signs and symptoms <input type="checkbox"/> Travel <input type="checkbox"/> Work plans: Maternity leave/benefits |

Prenatal Care Guidelines

*Requires Patient Consent

Visit Weeks 34-41

| Recommendations | Visit 7 (week 34) | Visit 8 (week 36) | Visits 9-12 (weeks 38-41) |
|---|---|--|--|
| History | <input type="checkbox"/> Current symptoms <input type="checkbox"/> Braxton Hicks <input type="checkbox"/> Fetal movement, leakage of fluid, vaginal bleeding | <input type="checkbox"/> Current symptoms <input type="checkbox"/> Fetal movement, leakage of fluid, vaginal bleeding, contractions | <input type="checkbox"/> Current symptoms <input type="checkbox"/> Fetal movement, leakage of fluid, vaginal bleeding, contractions |
| Labs/Ultrasounds | | <input type="checkbox"/> GBS culture <input type="checkbox"/> Hgb/Hct <input type="checkbox"/> As indicated: repeat GC/Chlamydia screen and RPR | <input type="checkbox"/> Post-dates testing by 41 weeks |
| Immunizations & Chemoprophylaxis | | | |
| Interval Screening | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal Heart tones <input type="checkbox"/> Fundal Height <input type="checkbox"/> Assess for edema <input type="checkbox"/> Nipple assessment if breastfeeding planned | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal Heart tones <input type="checkbox"/> Fundal Height <input type="checkbox"/> Assess for edema <input type="checkbox"/> Leopold's and/or cervical exam to determine fetal position/presentation | <input type="checkbox"/> Weight <input type="checkbox"/> BP <input type="checkbox"/> Fetal Heart tones <input type="checkbox"/> Fundal Height <input type="checkbox"/> Cervical exam for dilation/effacement <input type="checkbox"/> Leopold's and/or cervical exam to determine fetal position/presentation <input type="checkbox"/> NST BPP by 41 wks |
| Patient Education | <input type="checkbox"/> True vs. False Labor <input type="checkbox"/> Infant preparations <input type="checkbox"/> Birth Plan <input type="checkbox"/> Labor supports <input type="checkbox"/> Breastfeeding preparation <input type="checkbox"/> Choose a doctor for the baby <input type="checkbox"/> Visitor restrictions (i.e. flu season) | <input type="checkbox"/> Postpartum preparation <input type="checkbox"/> Hospital LOS <input type="checkbox"/> Breastfeeding supports available <input type="checkbox"/> Back to Sleep/co-sleeping <input type="checkbox"/> Infant CPR preparation <input type="checkbox"/> Aspects of newborn care | <input type="checkbox"/> Fetal activity review <input type="checkbox"/> L&D routine for hospital <input type="checkbox"/> Immediate postpartum routine <input type="checkbox"/> Induction PRN <input type="checkbox"/> Childcare <input type="checkbox"/> Smoking/secondhand smoke |
| Patient Counseling | <input type="checkbox"/> Discuss GBS testing <input type="checkbox"/> Discuss anesthesia in labor <input type="checkbox"/> Review importance of regular fetal activity <input type="checkbox"/> Review home supports system <input type="checkbox"/> Travel <input type="checkbox"/> Post partum birth control | <input type="checkbox"/> Signs/symptoms of labor <input type="checkbox"/> Review #'s to call, what to do if in labor <input type="checkbox"/> L&D review <input type="checkbox"/> Review warning signs | <input type="checkbox"/> Postpartum blues vs. depression <input type="checkbox"/> Postpartum follow-up <input type="checkbox"/> Infant follow-up <input type="checkbox"/> Work plans <input type="checkbox"/> Postpartum vaccinations if indicated |

Schedule of "adequate" prenatal care for the Uncomplicated Pregnancy:

- q 4 weeks for the first 28 weeks
- q 2-3 weeks until 36 weeks
- weekly 36 weeks +
- discretion of provider and history

VI) DISCUSSION – THE IPCV EXPERIENCE

Spreading Change

Despite the compelling nature of the work, IPCV recruited only a small portion of the total prenatal care providers in the state. Thus, IPCV created this “Practice Toolkit for Improving Prenatal Care,” thereby giving providers who did not participate in the Collaborative an opportunity to use the ideas developed by IPCV to improve his/her care.

At the conclusion of the Collaborative, IPCV conducted closeout interviews with each participating team. During these interviews, IPCV teams were asked what advice they would give to other practices who were considering implementing the IPCV changes. Several of the teams responded that, before the work is begun, it is essential a practice understand the amount of work it is able to undertake. Recognizing that time is often one of the most precious commodities in a very busy healthcare practice, participants suggested reviewing the package and then choosing 3 or 4 topics areas to focus improve on. To facilitate this choice, we have included our “*Practice Self-Assessment*” tool. This tool provides an essential self-assessment of a current practice care system. By comparing the results of this survey to the recommended best practice guidelines, the office team will be able to identify what aspects of the care system need improvement, facilitating the development of a plan for implementing change.

This toolkit can be used as a guide to implement current changes in best practice and will ensure that processes are set up to better assess, intervene and follow-up on issues surrounding the continued delivery of optimum prenatal care. Through its use, you have an opportunity to continually improve care for pregnant women and their families as together we strive to affect an improvement in the birth outcomes in Vermont.

Affecting Outcomes

Challenges are inherent in any project that seeks to change a system or test a new model. The following section outlines three important issues that influenced our effort to affect outcomes.

1. Focusing in on the Prenatal Period

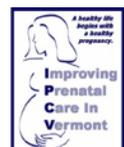
While the scope of our funded project was to improve prenatal care, many of our experts felt strongly that, to truly affect outcomes, prenatal care is not enough. Real change needs to occur pre and inter-conceptually through the identification of patients at-risk for poor outcomes. IPCV faculty recognized that prenatal care works best when considered as a continuum of care in a women’s overall health. However, beginning an improvement project using such a broad span would have overwhelmed participating practices, seriously jeopardizing their capacity to make any improvements. A vast body of knowledge supports the need for improved pre and inter-conceptual care in its own right and we have identified the need to address this in a separate project.

2. Best Practice Guidelines

Best practice in prenatal care is not always guided by a breadth of sound research which yields formal guidelines in all aspects of care. Often, experts in the field must rely on best knowledge consensus to direct their recommendations. At times, this project suggested improvements that were less driven by an absolute certainty that adherence to a guideline would improve outcomes, and more driven by best knowledge and a voiced desire to create a state-wide *standard of care*, even in the absence of conclusive evidence.

3. Prenatal Care: A Complex Topic

One important outcome of the Expert Meeting was a confirmation that improvement efforts focused on prenatal care should be inclusive of *all* aspects of prenatal care. Current research remains inconclusive regarding which aspects of prenatal care are most closely linked to poor birth outcomes. Addressing one aspect while ignoring others may not result in the desired effect on preterm labor and low birth weight outcomes. Therefore, IPCV experts agreed that the greatest chance of improving outcomes occurs when prenatal care is viewed as a system – a continuum of care. This caused us to rely heavily on expert guidance to select the most pertinent prenatal topic areas. When designing the project, we were aware of the potential problems associated with tackling nine topic areas in one Collaborative. We understood that practices had limited resources and severe demands on their time; consequently limiting in their ability to incorporate all aspects of best practice. Thus, each participating team established changes in their approach to care as they examined the gaps which existed in their practice’s compliance with the Three-Tiered Approach of assessment, intervention, and follow-up



Topic Sequencing

IPCV was unique in the method through which topics were introduced. To avoid overwhelming the participating practice teams, the introduction of each topic measurement and best practice guidelines was distributed over three trainings, called Learning Sessions:

Learning Session 1: Tobacco Cessation and Nutrition

Learning Session 2: Gestational Diabetes and three Psycho-social issues (Depression, Substance Abuse, and Intimate Partner Violence)

Learning Session 3: Infectious Disease (Periodontal Disease, STI's, and Influenza), Genetic Screening, and Preterm Labor

By the end of the Collaborative, teams were addressing all nine Collaborative topic areas. The benefits and challenges for this sequencing strategy include:

| Benefits | Challenges |
|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> assuring a comprehensive assessment of prenatal care in each practice, increasing the likelihood of impacting outcomes of low birth weight and preterm delivery <input type="checkbox"/> avoiding overwhelming the teams at the start of the Collaborative <input type="checkbox"/> facilitating team's learning of the improvement framework <input type="checkbox"/> by introducing topics gradually, we modeled one of the guiding principles of quality improvement - start small and accelerate change as confidence builds | <ul style="list-style-type: none"> <input type="checkbox"/> introducing a new set of topic areas at each training also added new data collection requirements which could be confusing and time consuming <input type="checkbox"/> introducing new topic areas caused some teams to lose focus on previous topic areas reducing the impact of some of their earlier efforts and causing the IPCV Project team to intervene and provide training on sustaining the gains <input type="checkbox"/> diminishing enthusiasm for additional topic areas by the third training session |

The Importance of Senior Leadership

Every IPCV practice team spent time problem solving as they uncovered barriers and planned future improvement strategies. Senior leadership's involvement in problem solving and implementation of changes is essential to success. As opinion leaders and champions of those who are implementing changes in the office setting, it is imperative that Senior Leaders "buy into" the suggested guidelines. This is particularly true in the area of prenatal care, as concrete evidence is often absent and consensus guidelines are the tools used by proactive and up-to-date care providers.

IPCV has experienced the positive effect of involved Senior Leaders as they worked with committed office teams. The motivation of the team, the engagement of the staff and the outcomes of the efforts are greatly augmented by the direct involvement and support of the Senior Leaders. The team's ability to succeed is often very much dependent on this engagement and support. A critical step would be a call from the clinical leader to a practice's Senior Leadership to emphasize the importance of Senior Leadership support through active participation and allocation of needed resources and by being a member of the office team as plans for sustainable changes are creatively implemented. The Senior Leader plays a key role in practice success as he/she reviews the effects of changes through data collection and direct staff and patient feedback.

It's best to pick one person to be the contact for the office. To be honest with you, our Nurse/Office Manager was the general here, and the nurse midwife and I were more like privates. That contact person could be a doctor, a nurse, an office manager, or a midwife – it doesn't matter. And then they need the lead-time to coordinate, coddle, cajole, and threaten – whatever it takes to get the stuff done. (OB/GYN, rural practice)

VII) TOPIC AREAS FOR IMPROVEMENT

Beginning Improvement Work

At the conclusion of the Collaborative, IPCV conducted closeout interviews with each participating team. During these interviews, IPCV teams were asked what advice they would give to another practices who was considering implementing the IPCV changes. Several of the teams responded that, before the work is begun, it is essential a practice understand the amount of work it's able to undertake. Recognizing that time is often one of the most precious commodities in a very busy healthcare practice, participants suggested reviewing the package and then choosing 3 or 4 topics areas to focus on. To facilitate this choice, we have included our "*Practice Self-Assessment*" tool. This tool provides an essential self-assessment of a current practice care system. By comparing the results of this survey to the recommended best practice guidelines, the office team will be able to identify aspects of the care system needing improvement, thereby facilitating the development of a plan for implementing change.

In summary, the suggestions offered by the participating teams as a result of their experience with the Collaborative are:

- consider the amount of improvement work your office team is able to take on;
- identify an engaged and committed Senior Leader;
- identify an office champion who will encourage the effort and include everyone in the task;
- assemble an office team committed to improvement who will discuss, plan, and execute improvements in the office system;
- review the package and choose 3 or 4 topics areas to improve on;
- understand where you are beginning and how well the current system provides optimum prenatal care (the "*Practice Self-Assessment Survey*" is provided for this purpose); and
- consider implementing a small scale, quarterly chart review. Your improvement team needs to be able to see the results of their labor and evidence for the need to set improvement goals.

When taken, these suggestions will enhance your chances of success.

How to Use this Toolkit

This toolkit is organized so that each of the 9 Collaborative topic areas is located in an individual folder. Each folder contains the following for its respective topic area:

- the Collaborative Change Package
- an improvement checklist
- suggestions for monitoring your improvements
- references and suggested resources
- tools and materials utilized by the Collaborative

1. Change Package

The Change Package outlines each topic area's best practice recommendations, measures, and the measure's association with the Three-Tiered Approach to care (assessment, intervention and follow-up). A goal was identified for each measure, together these goals constitute the "Standard of Prenatal Care" we believe has the greatest potential to improve outcomes for pregnant women. However, health care changes constantly. These recommendations are based on the research conducted by the Project Team and Planning Group in 2003-2004, and were presented to practices at the Collaborative Learning Sessions in 2004-2005. For any organization considering beginning their own prenatal care quality improvement work, it will be essential to understand current literature and any recent breakthroughs in prenatal care.

2. Improvement Checklists

As you embark on your improvement effort it may be very helpful to refer to the "Improvement Checklists." These 'user-friendly' checklists represent a distillation of the best practice recommended by the Collaborative. They will help guide you through the process of making topic-specific changes for assessment, intervention and follow-up.

What is a change package?

A change package is a set of materials and ideas that guide and enable Collaborative teams to implement breakthrough change in their setting.

There are four main components:

- 1) A conceptual framework that describes features of the ideal system for prenatal care
- 2) A set of changes or strategies that have proven to be effective in achieving improvements (often called "change concepts")
- 3) The Model for Improvement (an approach for testing and refining changes)
- 4) A set of measures that enable teams to track progress to Collaborative aims

3. Monitoring your Improvement

As mentioned earlier, measurement is the primary indicator of change used in a Collaborative. Furthermore, it is an essential part of providing optimal care. It's imperative to create a culture and find resources so as to support your practice staff to incorporate data collection into routine care. Your practice staff will rely on data to track the effect their changes are having on the overall system of care. Additionally, data will also provide a reward as staff sees the results of their hard work

4. Tools and Materials

Each topic area includes the most relevant of the provider tools and patient education materials utilized by the Collaborative. Some were designed by IPCV; others were designed by experts in the field. Should you choose to use the content contained in these tools, as with the best practice guidelines that helped create them, it will be important to research their relevance to current understanding and consensus regarding prenatal care guidelines. It will also be important to incorporate modifications to your current practice in a way that is the least disruption. For example it may be best to use the tools and /or questionnaires that currently exist in your state or office system and simply modify the document to reflect current best practice.

5. References and Resources

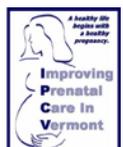
Each topic area outlines a list of resources and agencies/organizations used by IPCV to obtain tools and best practice guidelines for practice use. This list is not exhaustive, but rather is meant to direct you to sources of information that might help you to put together tools, guidelines and best practice recommendations for your prenatal care Collaborative. We attempted to provide you with general resources that are less likely to change in the near future, though you may find that you'll need to investigate to find updated website addresses. Resources that apply to all 9 topic areas are as follows:

National

- March of Dimes Website: www.marchofdimes.com (English) or www.nacersano.org (Spanish)
- Funded educational resource centers (Area Health Educations Center [AHEC])
- American College of Obstetrics and Gynecology (ACOG) at <http://www.acog.org>, and other professional organizations, such as the American Academy of Family Physicians (AAFP) at <http://www.aafp.org/> or American Medical Association (AMA) at <http://www.ama.org>
- National Guidelines Clearinghouse: <http://www.guideline.gov/>
- Web search

State/local

- Health Plans
- County Resources
- Health Department for:
 - Patient directed materials
 - Content experts for Learning Sessions
 - District offices for content experts who would be willing to visit an individual practice
 - Patient directed materials

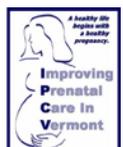


CONCLUSION

We are very proud of the fact that this Breakthrough Series Collaborative was the first of its kind to tackle the global concern of preterm delivery and babies born with low birth weight. The experts taught us that there are many pieces to this puzzle – there are no simple solutions, or directions, proven to directly impact these pregnancy outcomes. At the time of this report, the rate of premature deliveries in the State of Vermont is 9.5/100 live births. Considerable work still needs to be done if we are to impact this rate.

With advice, support, and guidance from national and local experts, the Vermont Department of Health, the March of Dimes, participating practices, and all our collaborators, IPCV brought a new methodology to ongoing efforts to improve the present prenatal care system. We are proud to say that this project assisted in the effort to establish statewide standards in prenatal care where only guidelines previously existed, and therefore constitutes one more step towards improving outcomes for women and their families in Vermont. Opportunities to improve will continue to appear as the State of Vermont, and providers, work together to set the best possible systems in place. With thoughtful and ongoing collaboration and continued focus on better outcomes, our health care systems can provide the highest quality care possible for Vermont women and their families. This toolkit will help guide you and your staff as you begin the important work of reducing the rates of preterm and low birth weight babies born in Vermont.

Thank you.



Toolkit Table of Contents

T= Provider Based Tool / Resource

R= Patient Directed Education / Resource Information

INTRODUCTION

| | |
|--|----------|
| Improving Prenatal Care in Vermont – A Breakthrough Series Collaborative | <i>R</i> |
| Patient Satisfaction Survey | <i>T</i> |
| Practice Self Assessment Survey | <i>T</i> |

TOBACCO

| | |
|---|------------|
| Tobacco Check List | <i>T</i> |
| Tobacco Treatment Checklist | <i>T</i> |
| PDSA Cycle Example (smoking) | <i>T</i> |
| Smoke-Free Home Examples | <i>R</i> |
| Stickers, Smokers, Suckers (The 5A's) | <i>R</i> |
| Pros and Cons of Smoking | <i>R</i> |
| Tobacco Treatment Flow Sheet | <i>T,R</i> |
| Local Tobacco Cessation Contacts | <i>T,R</i> |
| “The Facts about Smoking and Pregnancy” | <i>R</i> |
| Quitline Brochure | <i>R</i> |

NUTRITION

| | |
|--|------------|
| Nutrition Check List | <i>T</i> |
| 5 A's for Nutrition | <i>R</i> |
| “How Much Weight Should I Gain “ – Guidelines to appropriate weight gain in pregnancy based on patient's pre-pregnancy BMI | <i>T</i> |
| Nutrition Risk in Pregnancy (Assess/Intervene/FU) | <i>T</i> |
| Nutrition Reading List | <i>T,R</i> |
| Eating and Moving (DHMC Questionnaire) | <i>T</i> |
| BMI Wheel Weight Gain Chart | <i>R</i> |

GESTATIONAL DIABETES

| | |
|--|------------|
| Diabetes Check List | <i>T</i> |
| Diabetes Change Concepts/Best practice | <i>T</i> |
| Gestational Diabetes Algorithm | <i>T,R</i> |
| PDSA Cycle Example | <i>T</i> |



PSYCHOSOCIAL

| | |
|---|------------|
| Psychosocial/Behavioral Check List | <i>T</i> |
| Combined Clinical Tool | <i>T</i> |
| Brief Stress Assessment Form | <i>T,R</i> |
| Brief Stress Screening Form (postpartum) | <i>T,R</i> |
| Brief Psycho-Social Screening Form | <i>T,R</i> |
| Brief Psycho-Social Screening Form (postpartum) | <i>T,R</i> |

SUBSTANCE ABUSE

| | |
|---|----------|
| Substance Abuse Check List | <i>T</i> |
| Feelings Tracking Vocabulary | <i>T</i> |
| Daily Worksheet | <i>T</i> |
| Signs and Symptoms of Substance Abuse | <i>T</i> |
| Substance Abuse PDSA | <i>T</i> |
| Statewide Chemical Dependence Algorithm | <i>T</i> |

INTIMATE PARTNER VIOLENCE

| | |
|---|------------|
| Intimate Partner Violence Check List | <i>T</i> |
| DHMC IPV Confidential Screening Card | <i>T</i> |
| Helpful Questions to Assess an Individual's Stage of Change | <i>T</i> |
| Intimate Partner Violence Assessment Tool | <i>T</i> |
| Vermont Reporting Laws | <i>T</i> |
| Consent to Photograph | <i>T</i> |
| Documenting Intimate Partner Violence in Medical Records | <i>T</i> |
| Safety Plan and Discharge Instructions | <i>R</i> |
| Step By Step | <i>R</i> |
| Hotlines List by Counties | <i>T,R</i> |
| Making the Connection: IPV and OB/GYN | <i>T</i> |
| IPV PDSA Cycle example | <i>T</i> |
| IPV Case Study | <i>T</i> |

DEPRESSION

| | |
|--|----------|
| Depression Check List | <i>T</i> |
| Signs and Symptoms of Depression | <i>R</i> |
| Wallet Card | <i>R</i> |
| Edinburgh Postnatal Depression Scale | <i>R</i> |
| The Ties that Bind Smoking to Depression | <i>R</i> |
| Postpartum F/U Tracking | <i>T</i> |
| Postpartum Follow-Up Case Study | <i>R</i> |

PRETERM LABOR

| | |
|--------------------------------|----------|
| Preterm Labor Check List | <i>T</i> |
| Signs and Symptoms Wallet Card | <i>R</i> |
| Signs and Symptoms Flyer | <i>R</i> |
| Tocolytics for Preterm Labor | <i>T</i> |
| Preterm Labor Check List | <i>T</i> |

INFECTIOUS DISEASE

| | |
|---------------------------------------|----------|
| Infectious Disease Checklist | <i>T</i> |
| Flu Shot Poster | <i>R</i> |
| Initial Screening Questions for Hep C | <i>T</i> |
| Nursing Strategies for Oral Health | <i>T</i> |
| Infectious Disease Checklist | <i>T</i> |

GENETIC SCREENING

| | |
|--------------------------------|----------|
| Genetic Screening Checklist | <i>T</i> |
| “First Page” Genetic Screening | <i>T</i> |
| GYP Family History Fact Sheet | <i>T</i> |
| Pedigree Template | <i>T</i> |
| Genetic Screening Pocket Facts | <i>T</i> |

ENVIRONMENTAL EXPOSURES

| | |
|--|----------|
| Infant Safe Sleeping Environments – Talking Points | <i>T</i> |
| Steps to Reduce Exposure to Carbon Monoxide | <i>R</i> |
| A Parent's Guide to Safe Sleep | <i>R</i> |

BREASTFEEDING

| | |
|--|-------------|
| Is your clinic breastfeeding-friendly? | <i>T</i> |
| We Care for Breastfeeding Babies – Sample Breastfeeding Policy | <i>T</i> |
| UNICEF Breastfeeding: The Gold Standard | <i>T, R</i> |

ACCOMPANIMENTS

| | |
|----------------------|-------------|
| Prenatal Care Poster | <i>T, R</i> |
|----------------------|-------------|

Please answer the following questions based on your current care model. This survey focuses on six basic areas: Tobacco Use, Nutrition, Genetic Screening, Diabetes, STD/Infectious Diseases, and Preterm Delivery Risk Assessment.

Name of Practice: _____

Person completing the questionnaire: _____

Role: _____

Tobacco Use

Q1. Which of the following do you currently *offer* through in office counseling or by referral?

(Check all that apply)

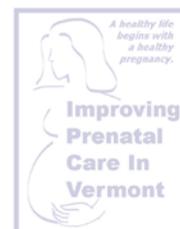
- Smoking risks during pregnancy
- Neonatal/Infant/Child risks of secondhand smoke exposure
- Smoking cessation counseling
- Specific program for cessation (Please name) _____
- None of the above

Nutrition

Q2. Which of the following patients do you currently *offer* nutritional counseling through in office counseling or by referral?

(Check all that apply)

- All patients receive nutritional counseling during pregnancy
- Patients with known eating disorders
- Overweight patients if their weight exceeds _____ pounds or they have a BMI > _____
- Underweight patients if their weight is under _____ pounds or they have a BMI < _____
- All diabetic patients
- Patients with excessive weight gain
(defined as > _____ pounds absolute weight gain by _____ weeks gestational age
OR > _____ pounds per week
OR both).
- Patients with poor weight gain
(defined as < _____ pounds absolute weight gain by _____ weeks gestational age
OR < _____ pounds per week
OR both).
- None of the above



Q3. Which of the following do you currently offer through in office counseling or by referral?

(Check all that apply)

- Advanced maternal age counseling (defined as ≥ 35 year old maternal age at delivery)
- Trisomy (e.g. Downs Syndrome) risk counseling for all maternal ages
- Ultrascreen (combination of nuchal fold thickness and blood markers in the late first trimester) for all maternal ages
- "Genetic" ultrasound (second trimester) for all maternal ages
- "Genetic" ultrasound (second trimester) for advanced maternal ages
- Triple marker screening
- Quadruplet marker screening
- Cystic Fibrosis screening for Caucasian population
- Cystic Fibrosis screening for all patients
- None of the above

Q4. Which screening tool does your practice use to identify genetic risk?

- ACOG
- Holister
- Three Generation Pedigree
- Other (Name): _____
- None of the above

Diabetic Screening

Q5. Which of the following do you currently offer through in office counseling or by referral?

| | Screening Tool Used (Please check one) | Cutoff value of 1 hour GTT (if used) for further testing/counseling |
|---|---|---|
| a. First or early second trimester (< 16 weeks gestational age) diabetic screening based on risk factors <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> 1 hour Glucose Tolerance Test (GTT) <input type="checkbox"/> 2 hour GTT <input type="checkbox"/> 3 hour glucose challenge test | _____ mg/dl |
| b. Second trimester diabetic screening (24-28 weeks EGA) <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> 1 hour Glucose Tolerance Test (GTT) <input type="checkbox"/> 2 hour GTT <input type="checkbox"/> 3 hour glucose challenge test | _____ mg/dl |

Q6. If you use the 3-hour Glucose Tolerance Test (GTT) for gestational diabetes diagnosis in your practice, what cutoff levels do you use?

FBS ____ mg/dl 1 hour ____ mg/dl 2 hour ____ mg/dl 3 hour ____ mg/dl

Our practice does not use the 3-hour GTT

Q7. What percentage of known diabetic patients would you estimate have a pre-pregnancy consultation with an Obstetric Provider? (Use your best guess.)

_____ %

Q8. If your practice uses a consultant for diabetic patients, with whom do you consult?
(Check all that apply)

Medical Endocrinologist

General Obstetrician/Gynecologist

Maternal-Fetal Medicine

Other (Please name) _____

None of the above

STD/Infectious Diseases

Q9. Which of the following do you currently offer through screening/testing?
(Check all that apply)

HIV screening/testing for all pregnant patients

Gonorrhea and Chlamydia screening/testing for all pregnant patients

Syphilis screening/testing for all pregnant patients

Hepatitis B screening/testing for all pregnant patients

Influenza vaccine for all pregnant patients (during flu season)

Influenza vaccine for at-risk pregnant patients (during flu season)

None of the above

Q10. Which test does your practice use to screen pregnant patients for Hepatitis B?
(Check all that apply)

Hepatitis B Surface Antigen

Hepatitis B Surface Antibody

Hepatitis B Core Antibody

Hepatitis C Antibody

None of the above

Q11. Does your practice screen all pregnant patients for STDs or selectively screen pregnant patients for STDs based on risk factors?

All patients screened

Selectively screened based on risk factors
(Please list risk factors) _____

- Q12. If initial STD testing is performed and negative, does your practice retest at-risk patients for STDs in the second or third trimester of pregnancy?**
- Yes
 No
- Q13. Does your practice counsel patients regarding the risks and preventive strategies for STD infection during pregnancy?**
- Yes
 No
- Q14. Does your practice offer an oral cavity evaluation for periodontal disease and infection as part of the screening process for pregnant patients?**
- Yes
 No

Preterm Delivery Risk Assessment

- Q15. Which of the following do you currently offer through in office counseling or by referral?**
(Check all that apply)
- Preterm labor/delivery screening questionnaire
 Verbal information on Preterm labor signs and symptoms to all patients
 Verbal information on Preterm labor signs and symptoms only to at-risk patients
 Written information on Preterm labor signs and symptoms to all patients
 Written information on Preterm labor signs and symptoms only to at risk patients
 None of the above
- Q16. Which preterm labor/delivery screening questionnaire does your practice use?**
- ACOG
 Holister
 Other (Name): _____
 Our practice does not use a preterm labor/delivery screening questionnaire.

General Risk Assessment

- Q17. Which of the following are part of a risk assessment tool that you use to screen women during pregnancy?** (Check all that apply)
- Domestic Violence
 Illicit Drug Use
 Tobacco Use
 Depression
 Our practice does not use a risk assessment tool

PATIENT SURVEY – Improving Prenatal Care in Vermont

We are using this survey to help improve our services to pregnant women. Your responses are confidential and cannot be traced back to you. Participation in this survey is voluntary, and honest responses or refusal to participate will not have any impact on your care from our practice. Please feel free to ask your doctor, nurse, or others on our staff if you have any questions about this survey. Please put your completed survey in the envelope provided. If you have any question about how this information will be used, you may call (insert your practice information) if you have any questions. Thank you for your valuable feedback!

Practice Name: _____

Today's Date: ____ / ____ / 20____
Month Day Year

Thinking about the care you've received during this pregnancy, please answer the following questions.

1. On average, how satisfied are you with the length of time spent waiting during each prenatal visit?
 Very Satisfied Satisfied Neutral Dissatisfied
2. How would you rate the average length of time spent with the nurse at your prenatal visits?
 Too long Just the right amount of time Too short
3. How would you rate the average length of time spent with the doctor/certified nurse midwife at your prenatal visits?
 Excellent Very Good Good Fair Poor
4. How satisfied are you with the care you received during this pregnancy?
 Very Satisfied Satisfied Neutral Dissatisfied
5. How satisfied are you with the attention given by the doctors and staff to what you have to say.
 Very Satisfied Satisfied Neutral Dissatisfied

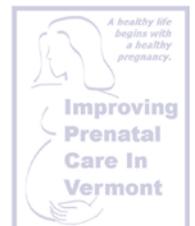
This next section asks about different health topics that your health care provider may have talked with you about during your office visits.

NUTRITION

6. Did your health care provider tell you what your body mass index, or BMI, was at your first prenatal visit?
 Yes No I don't remember
7. Did your health care provider talk to you about how much weight you should gain during your pregnancy based on your BMI?
 Yes No I don't remember
8. Were you given information about good nutrition and healthy eating during pregnancy?
 Yes No I don't remember
9. Have you been able to stay within your targeted weight gain during this pregnancy?
 Yes No I don't know

DIABETES

10. Was a test for diabetes performed with an explanation?
 Yes No I don't remember
11. Were the results of the diabetes test explained to you?
 Yes No I don't remember



12. If you were told that you have gestational diabetes, were you given enough information to manage and understand your diabetes?

- Yes No I do not have gestational diabetes

13. Overall, have your blood sugar levels been in control throughout your pregnancy if you have gestational diabetes?

- Yes No I do not have gestational diabetes

INFECTIOUS DISEASES

14. Were you tested or offered testing for infectious diseases such as sexually transmitted diseases (STDs), HIV/AIDS, rubella (german measles)?

- Yes No I don't remember

15. Did you receive a PAP screen during this pregnancy?

- Yes No

16. If you received treatment for infectious diseases, was the treatment explained to you?

- Yes No I did not need treatment

17. If you had a history of infectious diseases, were you retested during this pregnancy?

- Yes No I did not need to be retested

BEHAVIORAL RISK ASSESSMENT

18. Were you asked about tobacco use during your pregnancy?

- Yes No I don't remember

19. If you smoke, did you feel that your health care provider supported you in an effort to decrease or stop smoking?

- Yes No I don't smoke

20. Have you been able to decrease or stop smoking?

- Yes No I don't smoke

21. During your pregnancy has your health care provider asked you about personal substance abuse or substance abuse by someone living in your household?

- Yes No I don't remember

22. If needed, did you receive information about treatment for substance abuse?

- Yes No I don't remember I have no history of substance abuse

23. If needed, are you in treatment now for substance abuse?

- Yes No I have no history of substance abuse

24. Were you asked about a past or present history of depression?

- Yes No I don't remember

25. If needed, did you receive support and assistance for depression?

- Yes No I do not have a past or present history of depression

26. If needed, was the support you received to treat depression helpful to you?

- Yes No I did not need support for depression at this time

27. Where you asked about domestic violence during your pregnancy?

- Yes No I don't remember

28. If yes, were you asked in a private location (one where you felt safe to answer)?

- Yes No I don't remember I was not asked about domestic violence

29. Were you informed that information is available for support and assistance for domestic violence through your health care provider's office?

- Yes No

GENETIC TESTING

30. Were you asked about birth defects in your family for the past three generations (the baby's parents, grandparent, and great-grandparents)?

- Yes No I don't remember

31. Was testing for birth defects explained and offered to you?

- Yes No I don't remember

32. If testing for birth defects occurred, did your health care provider explain when to expect the test results?

- Yes No I don't remember I did not have genetic testing done

33. If testing for birth defects occurred, were the test results explained to you?

- Yes No I don't remember I did not have genetic testing done

34. If genetic testing occurred, did the entire testing process run smoothly for you?

- No (Please explain: _____)
 Yes I did not have genetic testing done

PRETERM LABOR

35. Were you educated about the signs and symptoms of preterm labor such as pelvic pressure, abdominal pain, and spotting?

- Yes No I don't remember

36. Have you experienced any signs or symptoms of preterm labor during this pregnancy?

- Yes No

37. Do you feel you know what to do should you experience any signs of preterm labor?

- Yes No

LOW BIRTH WEIGHT

38. Were the behaviors that contribute to the delivery of a low birth weight baby explained to you such as poor nutrition and smoking?

- Yes No I don't remember

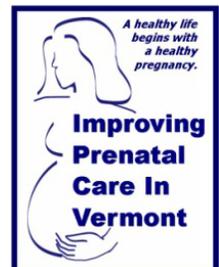
39. Does your present baby measure small in size, by ultrasound, for your expected due date?

- Yes No I don't know

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY!

Improving Prenatal Care in Vermont Best Practice Provider Toolkit

Tobacco/Smoking Cessation



Tobacco Cessation Improvement Checklist

Greater than 18% of pregnant women in Vermont and more than 1/3 of low income women report smoking tobacco during pregnancy (VDH, 2010), in comparison to a national rate of 13% in 2008 (HRSA, 2009). More than two-thirds of those reporting smoking during pregnancy in Vermont do not quit – making Vermont the second lowest in terms of mothers who quit smoking during pregnancy among states nationwide (VDH, 2008). Vermont teens (age 15-19) are more than twice as likely to smoke during pregnancy as Vermont women overall (VDH, 2008). Tobacco use is the single most preventable cause of low birth weight. The case and subsequent guidelines regarding the importance of tobacco cessation have been well defined and supported by research. Despite this fact, not all providers are aware of new guidelines, screening tools, interventions and available community resources.

Though assessment is an important step toward encouraging tobacco cessation, it isn't enough. A practice level commitment to an effective tobacco cessation program is essential. The most important concept is to utilize as many methods as possible to achieve the goal of cessation throughout pregnancy and beyond. Our data did not reflect an improvement in this area, which confirms that ongoing and diligent work is needed. Even minimal intervention (<3 minutes) advising the patient to quit smoking increases overall abstinence rates.

When considering referring pregnant women to your local QUITLINE, it is important to note that there is specific program designed for pregnant women seeking advice and support for quitting.

Before the collaborative, I'd go into tobacco use fairly extensively at the initial prenatal visit. Then I might mention it four or five visits later and ask how it's going. Now, we've adopted the use of the stickers on the front of the chart, so we knew immediately that the patient was a smoker. Each time they came into the office, my nurse would have a conversation with them about it and then I'd go in and have a conversation about it. We probably were successful in achieving tobacco abstinence in a fair number of patients, but equally as important – assuming they are reporting accurately – a high number of people cut way back with their tobacco use. (OB/GYN, rural practice)

Goals (developed in 2006 based on clinical guidelines HP 2010 and/or planning committee consensus)

1. 99% of pregnant women will be assessed for tobacco use at the first prenatal visit.
2. 99% of pregnant women identified as tobacco users will be offered in-office counseling at the first prenatal visit.
3. 99% of pregnant women identified as tobacco users will be referred to a cessation program at the first prenatal visit.
4. Greater than 50% of pregnant women identified as tobacco users will abstain from tobacco use by 28 weeks gestation.

Assessment

- Screen all patients at the first prenatal visit to identify smoking status, including those who quit within the past year.
- Screen for environmental smoke exposure – in home, at work, in car.
- ASK, ADVISE and REFER. Often primary care offices have limited time so asking, advising and referring patient to community resources, while offering ongoing positive support, will reinforce the quit message.
- If time allows, use the 5 A's Model (Ask, Advise, Assess, Assist, Arrange). The Five A's model for Smoking (Stickers-Suckers-Smokers) helps to target the different stages of quitting. Using techniques such as motivational interviewing, stages of change and assisting patients in setting self management goals can be considered in collaboration with the community programs the patient is referred to.
- At every visit thereafter, re-screen women who currently smoke, those who have quit within the last year, and/or those exposed to environmental tobacco smoke. Inquire after patient's success, in linking with community resources, while offering positive reinforcement and/or support for goals set and accomplishments.
- Activate or establish a marker in your chart form or electronic patient record to identify the patient who is a current smoker, or has been, in the last year. This will alert all staff to encourage the patients quit journey.



Intervention

Initial intervention should take 5-15 minutes. In-office counseling is the highest intervention priority.

- Intervene with current tobacco users and/or those women exposed to environmental smoke. If possible, include family members in the discussion.
- Consider educational intervention for smokers who recently quit (within the past year) to help them remain tobacco-free.
- Avoid using the fact that pregnant women who smoke often have babies born with a low birth weight. It often has more impact if you describe the possible poor health outcomes for low birth weight infants such as describing, “these babies are more difficult to care for, they cry more, are more often colicky and are more often sick with illness such as ear infections and colds”.
- Set a goal to quit or reduce tobacco use to less than five cigarettes per day.
- Consider signing a contract with patient.
- Offer referral for partner and/or those living with a pregnant woman
- Hand out educational materials.
- Refer to **1(800) QUIT NOW (784-8669) or VTQuitNetwork.org**. Patient can access a Quit Coach on-line or by phone, get personal support, access self help tools and free nicotine replacement (gum, patches, or lozenges) mailed to their door through the Vermont Department of Health. Telephone or in-person counseling and support is particularly effective.
- Refer to online tracking program QUIT YOUR WAY. <http://www.vtquitnetwork.org/quit-your-way>
- Use Motivational Interviewing tactics (<http://www.motivationalinterview.org/>).
- Re-enforce and encourage the ‘Quit Message’ through each member of the practice team at every visit to provide opportunities to offer positive reinforcement. All medical staff providing care for a pregnant woman who is working to quit or has quit recently should be aware of the patients’ intervention plan and work to engage and encourage the patient in this process.
- Make it clear to patients that they’re going to hear about quitting smoking every time they come in. Do this to counteract any patient assumption that providers don’t want to hear about it.
- Reinforce risks of second hand smoke exposure before, during and after pregnancy.
- Consider Pharmacotherapy – Pharmacotherapy is recommended in the Surgeon General’s Guidelines (<http://www.surgeongeneral.gov/tobacco/>), but the data for Pharmacotherapy has not been randomized. These data are only suggestive enough to explore Pharmacotherapy with caution. For pregnant women, we recommend pharmacotherapy as second line treatment for those unable to quit.
- Consider using an in-office motivational video with content that reinforces the quit message, outlines the risks of smoking while pregnant and/or describes the health hazards of secondhand smoke.

Follow Up

- Review your office systems to establish a process for ensuring that, for those patient referred to the Quit Network, the assessment follow-up fax from the Quit Network is placed/scanned into the patient’s chart prior to her next prenatal visit. The QUITLINE fax will provide vital information as you begin your supportive conversation.
- Be persistent in your encouragement of the patient’s commitment to quit or move towards quitting.
- Re-evaluate with patient any out-of-office referral for fit and effectiveness.
- Create a plan with the patient to eliminate environmental tobacco exposure for the pregnant mom and her newborn infant.

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Was the patient assessed for tobacco use at first prenatal visit?
- Was a 5 A’s model used for current smokers or women with a history of smoking within the last year?
- Was there documentation of setting a goal with patient to quit or reduce smoking, and/or reduce and then eliminate exposure to environmental tobacco?
- Was there documentation of follow-up for out-of-office referrals, if applicable?



Resources

- www.surgeongeneral.gov/tobacco/
- Rocky Mountain Health Plans at www.rmhmo.org for “The 5 A’s (Stickers-Suckers-Smokers)”
- American Cancer Society and other cancer research and support centers
- Vermont Department of Health for links with resources such as VTQuitNetwork.org
- American Academy of Family Physicians “Ask and Act” Resources
www.aafp.org/online/en/home/clinical/publichealth/tobacco/askandact.html
- American College of Obstetrics and Gynecology (ACOG) at www.acog.org
 - Smoking Cessation Homepage: acog.org/departments/dept_web.cfm?recno=13
 - Visit acog.org/departments/dept_notice.cfm?recno=13&bulletin=1863 to obtain a tobacco cessation toolkit for providers: *Smoking Cessation During Pregnancy: A Clinician's Guide to Helping Pregnant Women Quit Smoking*. This free, CME-accredited guide outlines how to integrate the "5 A's" into a clinical setting serving pregnant women. Includes algorithm of “5 A’s.”
 - Free and interactive CME Smoking Cessation During Pregnancy video Training consistent with USPHS 2008 Guidelines acog.org/departments/dept_web.cfm?recno=13
 - Visit acog.org/departments/dept_notice.cfm?recno=13&bulletin=5025
 - The guide includes a patient education workbook, “Need Help Putting Out that Cigarette?”. Developed by Smoke Free Families (www.smokefreefamilies.org), this pregnancy-specific, self-help booklet includes information on ways to prepare to quit, setting a quit date, how to handle “slips,” and tips for staying smoke-free after the baby is born.
- National Guidelines Clearinghouse: www.guideline.gov/
- March of Dimes Web site: www.marchofdimes.com (English) or www.nacersano.org (Spanish). To order a catalog or multiple copies of materials, call 1-802-560-4822.
- Agency for Healthcare Research and Quality. (AHRQ 2008) Helping Smokers Quit. A guide for Providers <http://www.ahrq.gov/path/tobacco.htm>
- National Tobacco Cessation Collaborative. <http://www.tobacco-cessation.org/>
- What Works to Quit: A Guide to Quit Smoking Methods. <http://whatworkstoquit.tobacco-cessation.org/>

References

- Treating Tobacco Use and Dependence. 2008 Update. U.S. Public Health Service. www.ncbi.nlm.gov/books/NBK12193.
- Vermont Department of Health (VDH), The Health Disparities of Vermonters. June 2010. Burlington, VT.
- US Department of Health and Human Services, Health Resources and Services Administration (HSRA), Maternal and Child Health Bureau. Women’s Health USA 2009. Rockville, Maryland: U.S. Department of Health and Human Services, 2009.
- Vermont Department of Health (VDH), www.healthvermont.gov/research/PRAMS/documents/20081222.pdf
- Vermont Department of Health (VDH). State of Vermont Tobacco Control Program Key Facts. September 2008.
- Center for Disease Control and Prevention. Provider Fact Sheet: What to Tell Your Patient About Smoking. http://www.cdc.gov/tobacco/data_statistics/sgr/2010/clinician_sheet/index.htm



Tobacco Cessation PDSA Example

Practice Name:

Date:

Cycle #:

Goal: Referrals for smoking cessation. (IPCV Charter goal: 99% of pregnant women who smoke will be offered cessation materials and counseling or will be referred to a cessation program.)

Suggested measure: Want to make sure referrals are tracked for smoking cessation.

How do you plan to achieve this goal: By setting up better office flow for smoking cessation referrals. First step we want to test is making sure documentation from provider for smoking cessation referral is put in a place where someone can keep track of whether referral was completed.

The PDSA CYCLE

The PDSA cycle is a simple yet powerful approach to moving from plan to action designed to help you reach your improvement goal. PDSA cycles are small, rapid tests of change. They provide a format to develop, test, and implement a change. These small steps lead to significant improvement.

How will you implement your plan?

Plan: (what, why)

What? Track patient referrals for smoking cessation by instituting a referral notice on chart that the front office person will see.

Why? To make sure that women who want to quit smoking are able to receive referral services for smoking cessation in a timely manner.

Do: (when, who, where)

Who? Provider and Front office person

When? Provider puts referral notice on chart at the end of the visit. When the patient checks out, front office person sees notice and puts documentation in "Smoking Cessation Referrals" folder.

Where? Notice goes on outside of chart to be put in a folder labeled "Smoking Cessation Referrals" that is kept on the front office desk.

Study: (intended results)

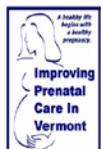
Smoking cessation referrals will be put in a folder in the front office to be reviewed at the end of each week to update status of referral.

Act: (next step)

Cycle 2: Making sure that status of smoking cessation referral is being followed up.

Cycle 3: Making sure that status of referrals is documented in chart so that provider knows at next prenatal visit if patient received referral services for smoking cessation.

Cycle 4: Making sure that billing person bills the insurance co. for smoking referral.





The Addison County Tobacco Control Roundtable
Community Health Services of Addison County



Funded by the Addison County Tobacco Control Roundtable and Community Health Services of Addison County

SMOKE-FREE ZONE



**PLEASE
NO SMOKING
WITHIN 15 FT OF
THIS ENTRANCE**

Stickers—Suckers—Smokers

Pregnancy Tobacco Cessation Program

*“If you always do what you’ve always done,
then you’ll always get what you’ve always gotten!”*

ASK

Ask at each visit about smoking status. Make it a part of checking routine vital signs.

- Have you ever smoked cigarettes?
- When was the last time you had a cigarette?
- How many cigarettes did you smoke yesterday?
- Could you stop smoking just for your pregnancy?
- Determine smoking status by reviewing history form filled out by patient.
- Place OB Tobacco Cessation sticker in chart.
- Congratulate patient if she stopped smoking when she found out she was pregnant.

| OB TOBACCO CESSATION | | | | | | |
|----------------------|--|--|--|--|--|--|
| Date of visit | | | | | | |
| Cigarettes per day | | | | | | |
| Counseled? | | | | | | |
| Handouts given? | | | | | | |
| NRT or other Rx? | | | | | | |
| Quit? | | | | | | |

ASSESS

Assess the willingness of the patient to attempt to quit within the next 30 days.

- How would quitting smoking improve your life?
- Are you interested in quitting with my help?
- If the patient is ready to quit, proceed to Assist.

If the patient is not ready, provide information to motivate the patient to quit; proceed to Arrange.

ADVISE

Advise patient to stop smoking. Message should be clear, strong, and personalized.

- The single most important thing you can do for your baby’s health is to stop smoking.
- I want to help you plan a smoke-free pregnancy.

ASSIST

Assist the patient in establishing a plan to stop smoking.

- Start a plan using “Need help Putting out That Cigarette?”
 - Help patient choose a quit date. Offer Pledge Card.
 - Have patient pick out smoking cessation method (cold turkey, tapering, etc.).
 - Encourage support from family, friends, and coworkers.
 - Highlight stress reduction activities.
- Introduce the 4 D’s (Delay, Drink Water, Deep Breathing, Do Something)

ARRANGE

Arrange for follow-up appointments or refer to a smoking cessation program and provide support:

Vermont Quit Line – (800) QUITNOW (784-8669) or VTQuitNetwork.org
VDH Local Tobacco Cessation Contacts

- It is imperative to send early OB referrals so the patient can start with smoking cessation counseling early in pregnancy.
- Consider nicotine replacement therapy.
- Schedule a follow-up at each visit.
- **Ongoing Cessation Message:** “I think you can do this. I’ll check your progress at the next visit.”



Pregnancy Tobacco Cessation Program — Stages

| Precontemplation "No" | Contemplation "Don't Know" | Preparation "Yes" | Action "Go!" | Maintenance "Cruising" | Relapse "Backslide" | Self-Empowerment "Finish" |
|---|---|---|---|--|--|--|
|  |  |  |  |  |  |  |
| Not currently considering the possibility of change. | Thinking about quitting but takes no action to do so. | Ready to quit and preparing to change. | Engages in specific actions intended to bring about change. | Attempts to sustain the change accomplished by previous action and to prevent relapse. | Returns to an earlier stage of change, often to precontemplation. | Tobacco free for duration of pregnancy. |
| <i>"My mom smoked and we all turned out fine."</i> | <i>"I'm worried about the effects on my baby. Maybe I should quit or cut down..."</i> | <i>"I'm gonna quit by my next prenatal check-up. Tell me how to do it."</i> | <i>"I haven't had a cigarette since the last visit."</i> | <i>"I haven't had a cigarette in almost a year."</i> | <i>"My stress levels are too high."</i> | <i>"I don't even think about smoking anymore."</i> |
| <p><i>"Can you stop just for your pregnancy?"</i></p> <p><i>"The single most important thing you can do for yourself and your baby's health is to stop smoking."</i></p> <p>Think of a "No" as a "No on the way to a Yes" that can be influenced by your counseling.</p> <p>Let the patient know you support her in whatever decision she makes.</p> <p>Try to motivate an attempt to quit.</p> | <p>Encourage patient to consider trying to stop smoking.</p> <p>Let her know you have confidence in her.</p> <p>Explore the benefits and drawbacks of continuing to smoke and of quitting. (Use the "Pros and Cons of Quitting Smoking" worksheet).</p> <p>Give feedback and education about patient's smoking.</p> | <p>Congratulate patient on her decision to quit. Let her know you're there to support her.</p> <p>Encourage support from family, friends, and coworkers.</p> <p>Help her take preparatory steps and find healthy replacement behaviors. (Use the "Do other things instead of Smoking" worksheet.)</p> <p>Focus less on the problem and more on the solution and action plan. (Use the "Coping with Withdrawal Symptoms" worksheet.)</p> | <p>Continually assess how smoking cessation plan is working and give feedback every visit.</p> <p>Pay attention to what triggers smoking and praise for healthy replacement behaviors.</p> <p>This stage takes the greatest amount of commitment of time and energy. (Use the "Coping with Withdrawal Symptoms" worksheet.)</p> <p>Encourage patient to reward herself for her efforts.</p> | <p>Reinforce patient's success.</p> <p>If there are significant life changes or stressors, reassess triggers and continuance of healthy replacement behaviors.</p> | <p>Reframe relapse as an opportunity to learn and not a reason to fail.</p> <p>Focus on successes and what worked.</p> <p>Re-evaluate her stage of change and assist her to re-enter the change cycle.</p> | <p>Use her success with smoking cessation to support self-empowerment. Remind her that quitting was probably one of the hardest things she will ever do.</p> <p>Raise awareness about handling periods of stress and situations that trigger tobacco use.</p> <p>Encourage remaining smoke-free after delivery. Review effects of second-hand smoke on children.</p> |

Rocky Mountain Health Plans. Grand Junction, CO. Created by Janice Ferguson, RNC

Reprinted with permission by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT. Last reviewed 2011.

The Pros & Cons of Quitting Smoking

Check the ones that apply to you.

Benefits of Smoking:

Helps you:

- Cope with stress
- Relax
- Concentrate
- Deal with boredom
- Handle strong emotions like anger, anxiety, sadness
- Deal with physical discomfort
- Source of pleasure
- Source of comfort
- Reward
- Social tool with other smokers
- Buffer between you and the world

Benefits of Quitting:

- Healthier baby
- Reduce risk of maternal complications
- Freedom from worry about your health, your family's health
- Family can stop worrying about you
- People will stop nagging you
- Able to go into public places without being self-conscious, without hassles
- Feel better physically, more energy
- Increased self-esteem
- Increased confidence that you can make things happen in your life
- More spending money: \$500-\$1000+ each year
- More time to do other things you want to do

Adapted with permission from Rocky Mountain Health Plans. Grand Junction, CO. 2004. Reprinted by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT. Last reviewed 2011.

Drawbacks of Smoking:

- The risk of miscarriage, prematurity, and stillbirth is up to twice as high for smokers.
- The risk of a low birth weight baby is higher for mothers who smoke. These babies are more difficult to care for, they cry more, are more often colicky and are more often sick with illness such as ear infections and colds
- Babies born to mothers who smoke are more susceptible to respiratory infections and are hospitalized more frequently.
- Studies have shown that babies lose 4 points in their IQ if the mother smokes.
- Increased risk of maternal complications
- Cost
- Poor role model for children
- Possibly hurting the health of family members
- Discolors your teeth
- Makes your hair and clothes smell
- Wrinkles your skin
- Coughing, shortness of breath, lack of energy
- Blunted sense of taste and smell

Drawbacks of Quitting:

- Uncomfortable period of physical withdrawal
- Put up with cravings
- Not feel like yourself for a while
- May gain weight, at least temporarily (it's okay to gain weight during your pregnancy)
- Relationships with friends who smoke may change
- Worry about whether you'll succeed
- May feel uncomfortable, unhappy, sorry for yourself
- Must give up something that is very precious to you



Do Other Things Instead of Smoking

When you get the urge to smoke, do something else instead:

- Think of the good you are doing for your baby
- Take a walk
- Go shopping (buy something special for the baby)
- Walk into another room or step outside and count to 20
- Call your Stop Smoking Buddy or a friend who will give you good support
- Leave the table after eating
- Take a nap
- Practice deep breathing
- Count your baby's movements
- Take a warm bubble bath or shower
- Drink a glass of water or juice
- Read a baby magazine or a health magazine
- Clean the house
- Open the windows and enjoy the fresh air
- Rinse your mouth with mouthwash or brush your teeth
- Start a new hobby that keeps your hands busy
- Finish an old project
- Play a game
- Eat some low-calorie fruits and vegetables
- Chew sugarless gum or suck on sugarless candy
- Go to a movie
- Congratulate yourself on your efforts to quit smoking

Other things I can do to keep from lighting a cigarette:

Adapted with permission from Rocky Mountain Health Plans. Grand Junction, CO. 2004.
Reprinted by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT.
Last reviewed 2011.



Coping With Withdrawal Symptoms

Signs of Recovery

Listed below are symptoms of recovery that may occur a few days or weeks after quitting smoking, with suggestions on how to handle them. REMEMBER, they are normal and temporary.

| How You May Feel | Why It May Happen | What to Do About It |
|---|---|--|
| Irritable, nervous, anxious, grumpy | No more nicotine, losing the crutch of cigarettes | Take it easy. Avoid stressful situations. Warn those around you. Get enough rest. Do whatever is relaxing for you. Exercise. |
| Unable to concentrate, less efficient, impaired speech, lack of coordination, feeling spaced out or in a fog. | Withdrawal from carbon monoxide (poisonous gas) and nicotine | Breathe deeply. Take a walk. Be careful using equipment or driving. Take time off if necessary. Don't expect too much of yourself – especially the first 3 days. |
| Lightheaded, dizzy, feeling over-stimulated | More oxygen in blood, less carbon monoxide | Sit down. Relax. Consider it a high. |
| Sleepy, weak, no energy | No more nicotine for stimulation | Wake up with deep breathing and exercise. Get extra sleep and take naps. Enjoy feeling relaxed. Take it easy. |
| Insomnia or other sleep disturbances | Change in daily routine, body may need less sleep | Use more energy during the day. Relax before bed with deep muscle relaxation and a warm bath. Enjoy the extra hours you aren't sleeping. |
| Hungry | Nicotine artificially suppresses appetite | Recognize these feelings may not be due to hunger. Don't eat more (except for low-calorie snacks like carrot sticks). Exercise. Drink water. |
| Increased coughing | Excess mucus and tar in the lungs being cleared out | Be glad your lungs are getting clean. |
| Constipated | Decreased intestinal activity | Eating fiber or roughage foods like fresh fruits and vegetables, whole grains, and bran. |
| Headache | Better circulation sends more blood to the brain | Lie down, relax. |
| Irritated or itchy scalp, hands and/or feet | Better blood circulation to your extremities | Massage the area. |
| Tremors, shaky | Nicotine withdrawal | Sit down. Flex and relax muscles. |
| Sweaty | Body's way of flushing out nicotine | Take more showers! |
| Increased need to urinate | Body's way of getting rid of nicotine or from drinking more fluids | Go with it. Be glad your body is flushing out the poison. |
| Mouth sores, bad taste, sore gums or tongue, dry tongue | May be due to chemicals in cigarettes needed to counteract nicotine | Use mouthwash or oral antiseptics. |
| Strong emotions | Nicotine no longer deadens your feelings | Accept feelings as natural. To keep them in control, pause, breathe deeply, and relax. |
| Dreams of smoking | | Be glad you don't really smoke! |

Adapted with permission from Rocky Mountain Health Plans. Grand Junction, CO. 2004.
Reprinted by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT.
Last reviewed 2011.



For People Who Still Smoke

Your support is particularly important to someone who is trying to quit smoking. Thank you for caring and being available for your friend or loved one. Here are some support tips:

- Consider quitting yourself – especially if you have thought about doing it in the past. Then the two of you can support and encourage each other, and your chances of success are improved.
- Don't smoke in the ex-smoker's presence – it will make it harder for him/her to resist smoking. If you must smoke when you're around an ex-smoker, excuse yourself and smoke somewhere else.
- Put your cigarettes, ashtrays, lighters, and other smoking paraphernalia out of sight. These can tempt your friend or loved one to smoke.
- Sit down and talk with each other to find out how you might provide support. Show you care. Be clear about what you are willing and not willing to do.
- List the different kinds of support you would be willing to offer:

- Invite your friend or loved one to make his/her own wish list for support. Compare your lists and come up with a plan that works for you both.

**REMEMBER, you can play an important role
in your someone's efforts to quit smoking.**



Tobacco Treatment Flow Sheet

| | | |
|--|---|---|
| Medical Record or Account #: | DOB: | Name (F/M/L): |
| ASK – Identify the patient’s current smoking status and exposure to second-hand smoke | | |
| Household Tobacco: | Number of smokers other than patient: _____ | Partner smokes: <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Baseline Tobacco Status (✓ one best statement) | | |
| <input type="checkbox"/> 1. Never smoked or smoked < 100 cigarettes in lifetime | → | Congratulate. STOP |
| <input type="checkbox"/> 2. Quit 12 months ago or more – not smoking now. | → | Congratulate & encourage staying quit. STOP |
| <input type="checkbox"/> 3. Quit less than 12 months ago – not smoking now. | → | Congratulate & encourage staying quit. CONTINUE |
| <input type="checkbox"/> 4. Quit during this pregnancy | → | Congratulate & encourage staying quit. CONTINUE |
| <input type="checkbox"/> 5. Currently Smoking | → | CONTINUE |
| | | Type: <input type="checkbox"/> Cigarette <input type="checkbox"/> Other |
| | | Co-morbidities: <input type="checkbox"/> Depression <input type="checkbox"/> EtOH <input type="checkbox"/> |
| | | Amount per day: Age Began: |
| Quit History (dates, success, challenges etc.): | | |

If currently smoking, quit during pregnancy or less than 12 months ago, complete the section below *at each visit*:

| VISIT DATE | | | | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <i>Check if Post Partum Visit</i> | <input type="checkbox"/> |
| CHECK SMOKING STATUS (ASK) | | | | | | | | | | | |
| Quit during pregnancy | | | | | | | | | | | |
| Currently Smoking | | | | | | | | | | | |
| ASSESS interest in quitting (Pregnancy Tobacco Cessation Program – Stages) | | | | | | | | | | | |
| Ready to quit now (within next 30 days) | | | | | | | | | | | |
| Not ready to quit now | | | | | | | | | | | |
| ADVISE, ASSIST, and ARRANGE | | | | | | | | | | | |
| Provide health message; discuss benefits of quitting: <i>If intending to quit, advise “NO tobacco”. If not intending to quit: “Think about trying to quit.”</i> | | | | | | | | | | | |
| Self-Help brochures | | | | | | | | | | | |
| VTQuitNetwork.org or 1-800-Quit-Now (784-8669) | | | | | | | | | | | |
| Short Quit Plan – You Can Quit Smoking | | | | | | | | | | | |
| Quit Plan – Need Help Putting Out that Cig? | | | | | | | | | | | |
| Medications discussed | | | | | | | | | | | |
| Prescribed | Bupropion | | | | | | | | | | |
| | NRT – Gum | | | | | | | | | | |
| | NRT – Inhaler | | | | | | | | | | |
| | NRT – Lozenge | | | | | | | | | | |
| | NRT – Patch | | | | | | | | | | |
| | Other | | | | | | | | | | |

Adapted with permission from the NICHQ. 2004. Printed by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT. Last reviewed 2011.

| Drug | Dosing | Instructions |
|--|--|---|
| Nicotine Gum (OTC) | 2-mg and 4-mg pieces to be used on a schedule or as needed. The 4-mg gum is recommended for people who smoke \geq 25 cigarettes/day. Scheduled use (q 1-2 hours) for 1 to 3 months may be better than as-needed use. | Chew the gum slowly until the taste of mint or pepper occurs. Then park the gum between the cheek and gum to permit absorption through the oral mucosa. Repeat and continue for approximately 30 minutes. Avoid acidic beverages (coffee, juice, soft drinks) or eating for 15 minutes before and during use. |
| Nicotine lozenge (OTC) | 2-mg lozenge (for those who smoke their first cigarette after 30 minutes of waking) and 4-mg lozenge (for those who smoke their first cigarette within 30 minutes of waking). The recommended dosing scheme is 1 lozenge: every 1-2 hours for weeks 1-6, every 2-4 hours during weeks 10-12. Recommended length of therapy is 12 weeks | Avoid eating or drinking for 15 minutes before use. Suck on the lozenge until it dissolves. Do not bite or chew it like a hard candy, and do not swallow it. |
| Nicotine patch (Nicotine CQ and Nicotrol OTC generic patches by prescription) | One patch every day. Nicoderm CQ is 1 24-hour patch that comes in 3 doses for tapering. The recommended dosing scheme is 21 mg for 4 weeks, 14 mg for 2 weeks, and 7 mg for 2 weeks. Nicotrol is a 16-hour patch that comes in 15 mg for 8 weeks. | At the start of each day, place a fresh patch on a relatively hairless area of skin between the waist and neck. If sleep disruption occurs, the patch may be worn only during waking hours. |
| Nicotine nasal spray (prescription) | One spray to each nostril (1 mg total nicotine). Initial dose is 1-2 doses per hour, as needed, for symptom relief. Minimum treatment is 8 doses/day. The maximum is 40 doses/day and 5 doses/hour. Each bottle contains 100 mg of nicotine. | Avoid sniffing, inhaling, or swallowing during administration as irritating effects are increased. Tilt the head back slightly during administration. |
| Nicotine inhaler (prescription) | One puff as needed. A cartridge delivers 4 mg of nicotine in the course of 80 inhalations. 6-16 cartridges should be used per day, with tapering of use in the last 6-8 weeks of therapy. | Temperatures below 40 degrees F decrease nicotine delivery. Avoid acidic beverages or eating for 15 minutes before use. Duration of therapy is for up to 6 months. |
| Bupropion sustained release (prescription) | 150 mg BID, beginning qAM x 3 days | Begin bupropion 1-2 weeks before the quit date. The duration of therapy is 7-12 weeks and may be extended up to 6 months. |

Inclusion of this adult dosage chart is strictly for the convenience of the prescribing provider. Please consult the Physicians' Desk Reference for complete product information and contraindications.



Vermont Tobacco Cessation Contacts

| Organization | Local Contact | Phone | E mail |
|--|----------------------------------|----------------------|--|
| Brattleboro Memorial Hospital | Bob St. Pierre | 257-8218 | bstpierre@bmhvt.org |
| Central Vermont Medical Center | Loretta Schneider Gigi Magee | 371-5903 | Loretta.schneider@hitchcock.org Galena.magee@hitchcock.org |
| Copley Hospital | Lawrence Berry | 888-8324 | lberry@chsi.org |
| Department of Veterans Affairs | Spencer Burdge | 295-9363 x5760 | Spencer.burdge@med.va.gov |
| Fletcher Allen Health Care | Evelyn Sikorski | 847-6540 | Evelyn.sikorski@vtmednet.org |
| Gifford Medical Center | Glenda Mitroff Susan Delattre | 728-2349 728-2118 | gmitroff@giffordmed.org sdelattre@giffordmed.org |
| Mt. Ascutney Hospital | Melanie Peet Sheehan | 674-7089 | Melanie.p.sheehan@hitchcock.org |
| North Country Hospital | Joanne Fedele | 334-3208 | jfedele@nchsi.org |
| Northwestern Medical Center | Jamie Balch | 524-1296 | jbalch@nmcinc.org |
| Northeastern Vermont Regional Hospital | Diane Matthews | 748-7304 | d.matthews@nvrh.org |
| Porter Medical Center | Heidi Sulis | 388-4739 | hsulis@portermedical.org |
| Rutland Regional Medical Center | Peg Young | 747-3768 | pyoung@rrmc.org |
| Southwestern Vermont Medical Center | Gwen Hannan | 447-5508 | gmh@phin.org |
| Springfield Hospital | Mary Anne Riley | 885-2151 x155 | mriley@springfieldhospital.org |
| Statewide Cessation Coordinator | Catherine Suiter | 847-6574 | Catherine.suiter@vtmednet.org |
| VAHHS Statewide Administrative Liaison | Penrose Jackson | 847-3445 | Penrose.jackson@vtmednet.org |



Patient Name: _____ DOB: _____ Chart #: _____

Visit date: _____ Name of smoker _____

| Tobacco Treatment Checklist | |
|---|---|
| ADVISE smoker to stop: | <input type="checkbox"/> Stop-smoking advice given: "I strongly advise that you establish a no-smoking policy in the house and that you quit smoking yourself and I can help you" |
| ASSESS readiness to quit: | <input type="checkbox"/> Ready to quit <input type="checkbox"/> Thinking about quitting <input type="checkbox"/> Not ready to quit |
| ASSIST smoker to quit: | <input type="checkbox"/> Brief counseling <ul style="list-style-type: none"> ▪ Help with a quit plan ▪ Reasons to quit; Clarify the goal of complete abstinence ▪ Barriers to quitting ▪ Lessons from past quit attempts ▪ Identify triggers and difficult situations and consider coping strategies ▪ Enlist social support <input type="checkbox"/> Medications if appropriate <ul style="list-style-type: none"> ▪ Prescribe pharmacotherapy (patch, gum, lozenge, nasal spray, inhaler, bupropion-SR) ▪ Provide supplementary educational materials |
| ARRANGE follow-up: | <input type="checkbox"/> Refer to: _____ |
| Counseling notes: _____ _____ _____ | |

Visit date: _____ Name of smoker _____

| Tobacco Treatment Checklist | |
|---|---|
| ADVISE smoker to stop: | <input type="checkbox"/> Stop-smoking advice given: "I strongly advise that you establish a no-smoking policy in the house and that you quit smoking yourself and I can help you" |
| ASSESS readiness to quit: | <input type="checkbox"/> Ready to quit <input type="checkbox"/> Thinking about quitting <input type="checkbox"/> Not ready to quit |
| ASSIST smoker to quit: | <input type="checkbox"/> Brief counseling <ul style="list-style-type: none"> ▪ Help with a quit plan ▪ Reasons to quit; Clarify the goal of complete abstinence ▪ Barriers to quitting ▪ Lessons from past quit attempts ▪ Identify triggers and difficult situations and consider coping strategies ▪ Enlist social support <input type="checkbox"/> Medications if appropriate <ul style="list-style-type: none"> ▪ Prescribe pharmacotherapy (patch, gum, lozenge, nasal spray, inhaler, bupropion-SR) ▪ Provide supplementary educational materials |
| ARRANGE follow-up: | <input type="checkbox"/> Refer to: _____ |
| Counseling notes: _____ _____ _____ | |

Visit date: _____ Name of smoker _____

| Tobacco Treatment Checklist | |
|---|---|
| ADVISE smoker to stop: | <input type="checkbox"/> Stop-smoking advice given: "I strongly advise that you establish a no-smoking policy in the house and that you quit smoking yourself and I can help you" |
| ASSESS readiness to quit: | <input type="checkbox"/> Ready to quit <input type="checkbox"/> Thinking about quitting <input type="checkbox"/> Not ready to quit |
| ASSIST smoker to quit: | <input type="checkbox"/> Brief counseling <ul style="list-style-type: none"> ▪ Help with a quit plan ▪ Reasons to quit; Clarify the goal of complete abstinence ▪ Barriers to quitting ▪ Lessons from past quit attempts ▪ Identify triggers and difficult situations and consider coping strategies ▪ Enlist social support <input type="checkbox"/> Medications if appropriate <ul style="list-style-type: none"> ▪ Prescribe pharmacotherapy (patch, gum, lozenge, nasal spray, inhaler, bupropion-SR) ▪ Provide supplementary educational materials |
| ARRANGE follow-up: | <input type="checkbox"/> Refer to: _____ |
| Counseling notes: _____ _____ _____ | |

Visit date: _____ Name of smoker _____

| Tobacco Treatment Checklist | |
|---|---|
| ADVISE smoker to stop: | <input type="checkbox"/> Stop-smoking advice given: "I strongly advise that you establish a no-smoking policy in the house and that you quit smoking yourself and I can help you" |
| ASSESS readiness to quit: | <input type="checkbox"/> Ready to quit <input type="checkbox"/> Thinking about quitting <input type="checkbox"/> Not ready to quit |
| ASSIST smoker to quit: | <input type="checkbox"/> Brief counseling <ul style="list-style-type: none"> ▪ Help with a quit plan ▪ Reasons to quit; Clarify the goal of complete abstinence ▪ Barriers to quitting ▪ Lessons from past quit attempts ▪ Identify triggers and difficult situations and consider coping strategies ▪ Enlist social support <input type="checkbox"/> Medications if appropriate <ul style="list-style-type: none"> ▪ Prescribe pharmacotherapy (patch, gum, lozenge, nasal spray, inhaler, bupropion-SR) ▪ Provide supplementary educational materials |
| ARRANGE follow-up: | <input type="checkbox"/> Refer to: _____ |
| Counseling notes: _____ _____ _____ | |

Quick Guide to Smoking Cessation Pharmacotherapy

| Drug | Dosing | Instructions |
|---|--|---|
| Nicotine gum (OTC) | 2-mg and 4-mg pieces to be used on a schedule or as needed. The 4-mg gum is recommended for people who smoke ≥ 25 cigarettes/day. Up to 24 pieces of gum may be used daily. Scheduled use (q 1-2 hours) for 1 to 3 months may be better than as-needed use. | Chew the gum slowly until the taste of mint or pepper occurs. Then park the gum between the cheek and gum to permit absorption through the oral mucosa. Repeat and continue for approximately 30 minutes. Avoid acidic beverages (coffee, juice, soft drinks) or eating for 15 minutes before and during use. |
| Nicotine lozenge (OTC) | 2-mg lozenge (for those who smoke their first cigarette after 30 minutes of waking) and 4-mg lozenge (for those who smoke their first cigarette within 30 minutes of waking up). The recommended dosing scheme is 1 lozenge: every 1-2 hours for weeks 1 - 6, every 2 - 4 hours during weeks 7 - 9, and 4 - 8 hours during weeks 10 - 12. Recommended length of therapy is 12 weeks. | Avoid eating or drinking for 15 minutes before use. Suck on the lozenge until it dissolves. Do not bite or chew it like a hard candy, and do not swallow it. |
| Nicotine patch (Nicoderm CQ and Nicotrol OTC, generic patches by prescription) | One patch every day. Nicoderm CQ is a 24-hour patch that comes in 3 doses for tapering. The recommended dosing scheme is 21 mg for 4 weeks, 14 mg for 2 weeks, and 7 mg for 2 weeks. Nicotrol is a 16-hour patch that comes in 15 mg for 8 weeks. | At the start of each day, place a fresh patch on a relatively hairless area of skin between the waist and neck. If sleep disruption occurs, the patch may be worn only during waking hours. |
| Nicotine nasal spray (prescription) | One spray to each nostril (1 mg total nicotine). Initial dose is 1-2 doses per hour, as needed, for symptom relief. Minimum treatment is 8 doses/day. The maximum is 40 doses/day and 5 doses/hour. Each bottle contains 100 mg of nicotine. | Avoid sniffing, inhaling, or swallowing during administration as irritating effects are increased. Tilt the head back slightly during administration. |
| Nicotine inhaler (prescription) | One puff as needed. A cartridge delivers 4 mg of nicotine in the course of 80 inhalations. 6-16 cartridges should be used per day, with tapering of use in the last 6-12 weeks of therapy. | Temperatures below 40°F decrease nicotine delivery. Avoid acidic beverages or eating for 15 minutes before use. Duration of therapy is for up to 6 months. |
| Bupropion sustained release (prescription) | 150 mg BID, beginning qAM \times 3 days | Begin bupropion 1-2 weeks before the quit date. The duration of therapy is 7-12 weeks and may be extended up to 6 months. |

Inclusion of this adult dosage chart is strictly for the convenience of the prescribing provider. Please consult the Physicians' Desk Reference for complete product information and contraindications.

A Guide to Quit Smoking Methods

★★★★ = BEST
 ★★★☆ = BETTER
 ★★☆☆ = GOOD
 ★☆☆☆ = OK
 ☆☆☆☆ = NO EVIDENCE THAT THIS TREATMENT IS EFFECTIVE

COST TO QUIT:¹
 \$ = under \$150
 \$\$ = \$151 - \$299
 \$\$\$ = \$300 and above

| WHAT CAN HELP ME TO QUIT? | HOW WELL DOES IT WORK? | HOW MUCH DOES IT COST TO QUIT? ¹ | DOES INSURANCE COVER IT? | WHERE CAN I GET IT? |
|---|------------------------|---|--------------------------|---|
| Counseling and Support | | | | |
| Counseling and Support—In Person (Individual or Group) | ★★☆☆ | \$ to \$\$\$ | ✓ | Your doctor, clinic, hospital or health department |
| Counseling and Support—Telephone | ★★☆☆ | Free | no cost | Your state or local health department or quitline, such as 1-800-QUIT-NOW |
| Medications (Common Brand Names) | | | | |
| Bupropion SR Pills (Wellbutrin® or Zyban®) ² | ★★☆☆ | Free to \$\$\$ ³ | ✓ | Your doctor; 1-800-QUIT-NOW ³ |
| Nicotine Gum (Nicorette®) ² | ★★☆☆ | Free to \$\$\$ ³ | ✓ | Over-the-counter; 1-800-QUIT-NOW ³ |
| Nicotine Inhaler (Nicotrol® Inhaler) | ★★☆☆ | \$\$\$ | ✓ | Your doctor |
| Nicotine Lozenge (Commit®) ² | ★★☆☆ | Free to \$\$\$ ³ | ✓ | Over-the-counter; 1-800-QUIT-NOW ³ |
| Nicotine Nasal Spray (Nicotrol®) | ★★☆☆ | \$\$ to \$\$\$ | ✓ | Your doctor |
| Nicotine Patch (Nicoderm CQ®) ² | ★★☆☆ | Free to \$\$ ³ | ✓ | Over-the-counter; 1-800-QUIT-NOW ³ |
| Varenicline Pills (Chantix®) | ★★★★ | \$\$ to \$\$\$ | ✓ | Your doctor |
| Combined Nicotine Replacement Therapies | ★★★☆☆ | \$ to \$\$\$ | ✓ | Over-the-counter; 1-800-QUIT-NOW ³ ; Your doctor |
| Combination Methods | | | | |
| In-Person Counseling and Support + Medication | ★★★★ | \$ to \$\$\$ | ✓ | Your doctor, clinic, hospital or health department |
| Telephone Counseling and Support + Medication | ★★★★ | Free to \$\$\$ ³ | ✓ | 1-800-QUIT-NOW ³ |
| Other Methods | | | | |
| Acupuncture | ☆☆☆☆ | \$\$\$ | | Licensed Acupuncturist |
| Hypnosis | ☆☆☆☆ | \$\$\$ | | National Board Certified Hypnotherapist |
| Laser Therapy | ☆☆☆☆ | \$\$\$ | | Laser therapist |
| Internet Quitting Programs | ★☆☆☆ | Free | no cost | Online; www.smokefree.gov |
| Self-help Quitting Guides and Other Materials | ★☆☆☆ | Free to \$ | ✓ | Your doctor, other health care provider or health department |

¹ Cost may be free or significantly reduced if your insurance, health plan, quitline or clinic provides coverage.

² Generic versions, store brands and other brands are available.

³ Many quitlines provide free or low-cost medication to eligible adults. Check with your quitline.

TALK WITH YOUR DOCTOR OR PHARMACIST BEFORE BEGINNING ANY MEDICATIONS.

✓ = YES, often covered. Check with your insurance company or health plan.

For more information, please visit
<http://whatworkstoquit.tobacco-cessation.org>

Secondhand Tobacco Smoke and the Health of Your Family



Make Your Home and Car Smoke-Free

Secondhand smoke is the smoke that comes from the burning end of a cigarette, cigar or pipe. Secondhand smoke can make you and your children sick.

Secondhand Smoke is Dangerous

Everyone knows that smoking is bad for smokers, but did you know:

- Breathing in someone else's cigarette, pipe or cigar smoke can make you and your children sick.
- Children who live in homes where people smoke may get sick more often with coughs, wheezing, ear infections, bronchitis or pneumonia.
- Children with asthma may have asthma attacks that are more severe or occur more often.
- Opening windows or using fans or air conditioners will not stop secondhand smoke exposure.
- The U.S. Surgeon General says that secondhand smoke can cause Sudden Infant Death Syndrome, also known as SIDS.
- Secondhand smoke also can cause lung cancer and heart disease.

Protect Your Family

- Make your car and home smoke-free.
- Family, friends or visitors should never smoke inside your home or car.
- Keep yourself and your children away from places where smoking is allowed.
- If you smoke, smoke only outside.
- Ask your doctor for ways to help you stop smoking.

Remember

Keeping a smoke-free home and car can help improve your health, the health of your children and the health of your community.



El humo de tabaco en el medio ambiente y la salud de su familia



Mantenga su hogar y su auto libres del humo de tabaco

El humo de segunda mano es el humo que sale de un cigarrillo, de un puro, o de una pipa. El humo de segunda mano puede enfermarlo a usted y a sus niños.

El humo de segunda mano es peligroso

Todo el mundo sabe que fumar es malo para los fumadores, pero ¿tenía usted conocimiento?

- Respirar el humo que sale del cigarrillo de una pipa o puro puede enfermarlo a usted y a sus niños.
- Los niños que viven en casas donde las personas fuman se pueden enfermar más a menudo con tos, respirar con dificultad, infecciones de oído, bronquitis o pulmonía.
- Los niños con asma pueden sufrir de ataques de asma más severo y con más frecuencia.
- Abrir las ventanas, usar abanicos o aires acondicionados no reducirá por completo el humo de segunda mano.
- El Cirujano General de los E.U. dice que el humo de segunda mano puede causar el síndrome de muerte súbita (SIDS, por sus siglas en inglés).
- El humo de segunda mano puede causar cáncer pulmonar y enfermedades del corazón.

Proteja a su familia

- Mantenga su hogar y su automóvil libres del humo de segunda mano.
- Su familia, amigos o visitantes no deben nunca fumar en el interior de su hogar ni de su automóvil.
- Manténgase al igual que a sus niños alejados de los lugares donde es permitido fumar.
- Si usted fuma, fume afuera solamente.
- Pídale a su médico que le diga formas de como dejar de fumar.

Recuerde

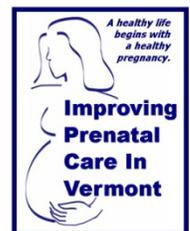
Mantener a su hogar y su automóvil libres del humo de segunda mano puede mejorar su salud, la de sus niños y la de su comunidad.



Improving Prenatal Care in Vermont

Best Practice Provider Toolkit

Nutrition



Nutrition Improvement Checklist

In 2008, two-thirds (66.4%) of the pregnant patients in Vermont had inappropriate weight gain during their pregnancy; 46.1% had weight gain considered excessive and 20.3% had weight gain considered inadequate for a healthy pregnancy. Additionally, 38.7% of the pregnant population began their pregnancy with a BMI greater than 26.0 (VDH, 2008). All participating practices chose to focus on implementing the calculation of BMI as part of a routine nutritional assessment as none were doing so at the inception of the project. Additionally, one practice worked with our nutrition expert to develop a screening tool tailored to their office, which can be found in this section of the Toolkit. Our nutrition expert worked with us to incorporate our best practice recommendations into other tools that can be found in the same section: “5 A’s for Nutrition,” a more in-depth tool that follows the “Three-Tiered Approach” and “How Much Weight Should I Gain?” a patient educational tool for weight gain.

I really pushed for implementing the suggestions, which were identifying the BMI at the first prenatal visit, filling out the form that showed the appropriate weight gain relative to the BMI, and doing a weight chart. It became a good snapshot for me to discuss appropriate weight gain. I found it to be a useful tool. I started paying much more attention to weight gain in pregnancy and in a more organized way. (midwife, academic health center)

Goals (developed in 2006 based on best practice guidelines, HP 2010, and/or planning committee consensus)

1. 95% of pregnant women will have a nutritional assessment at the first prenatal visit(s).
2. 95% of pregnant women will have their BMI calculated at the first prenatal visit.
3. 75% of pregnant women, identified as having a ‘nutritional risk’, will receive in-office counseling by the 20 week visit.
4. 90% of pregnant women will have appropriate weight gain at 28 weeks gestation.
5. 100% of pregnant women will have a discussion around the importance of breastfeeding

Assess

There are many situations that may lead to compromise of nutritional status prior to, or at the onset of, pregnancy. Given that approximately two thirds of women are currently overweight or obese and nearly 15 percent of American households are unable to acquire adequate food to meet their needs because of insufficient money or other resources for food (Nord et al, 2009), many women may be at risk. **Early nutritional assessment** prior to pregnancy can determine which risk factors should be monitored during pregnancy. Often, these risk factors are not obvious and do not disappear initially, but rather effect outcomes as the pregnancy progresses. At the same time, additional risks related to the current pregnancy may develop, such as increased nutritional needs and/or compromised intake. What may appear to be a small concern should be put into the context of the overall nutritional status. IPCV experts recommended the follow assessment directives:

- Assess for nutritional risk factors known to exist prior to, or during, pregnancy. Consider using the “5 A’s for Nutrition” and “Nutrition Risk Factors” tools, both of which are provided in this section.
- Document and communicate Body Mass Index (BMI) at the first prenatal visit.
- Check for appetite, frequency of eating, and new changes to diet **at every visit**.

Intervene

- Give all women a target weight goal.** Check in with them periodically to let them know how they are doing.
- Strongly encourage women to breastfeed** while reinforcing the importance of breastfeeding for maternal and childhood health outcomes including childhood obesity (Huang, 2006).
- Strongly **encourage women to eat 3 nutritional meals and 3 snacks** (or six mini-meals) and not to skip meals. Pregnant women should always eat a small snack before bed that includes a protein source of about 10 grams.
- Ask about food security issues**, not just hunger. Overweight and/or high weight gain can go along with lack of access to nutritious food because inadequate income can lead to the purchase of cheap “filler” foods that are high carbohydrate, high fat, and non-nutritious.



- Remind women they are not eating for two.** The average recommended calorie increase is about 300 calories/day. Mention that a caloric increase from unhealthy choices, such as 2 cans of soda, compared to healthier choices, such as 16 oz whole milk, can quickly add up. Give examples of how to add 300 kcal in a healthy way. (See “How Much Weight Should I Gain?” in this section)
- Recommend a folic acid supplement or a multivitamin with folic acid prior to and throughout the pregnancy.
- Assess readiness to change. Make sure she is ready to talk about it, especially if it is a problem. A few simple, open-ended questions can garner a lot of information. Use a script similar to the following:
 1. Have you made any changes to the way you eat since you found out you are pregnant?
 - a. No – How many times a day do you eat? Do you intend to make any changes in the near future or because of your pregnancy? If concerned you can ask: what kinds of foods do you usually eat; are there foods that you avoid?
 - b. Yes - Tell me about them. Did someone tell you to do this? How many times a day do you eat? Are you eating a lot more, a little more, a lot less or a little less.
 2. Today, your weight was _____ How do you feel about that number?
 - a. Have you recently gained or lost a lot of weight?
 3. How much weight do you think you should gain during this pregnancy?
 - a. According to how much you weighed before pregnancy, your goal should be _____.
 - b. Do you think that is something that you can do?
 4. Do you always have enough money to buy the food you need?
 5. Does the food you buy last and do you (or your household) have enough money to buy more?
 - a. Have you or anyone in your household ever cut the size of your meals or skipped them because there wasn't enough money for food?
 6. Are you presently enrolled in WIC?
- Refer red flags to nutritional counselor, WIC, Food Stamps, or food pantries as needed and available.
- Refer to social worker as available and nutritional counselor for assistance with stress and more intense nutritional counseling.
- Refer to a mental health professional and a nutritional counselor if an eating disorder is suspected.

Follow-up

- Assess weight, appetite, changes to diet, and access to food at every visit, and encourage continued, steady gains.
- Consider plotting changes in weight on a graph, and look for trends that might indicate inappropriate weight gain.
- Follow-up on referrals, and continue ongoing re-assessment for changes in nutritional status
- Discuss the importance of inter-pregnancy weight control at postpartum visit.

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Did patient receive a nutritional assessment in the first trimester?
- Was BMI documented at first prenatal visit?
- Was patient ‘at nutritional risk’ completed?
- If yes, did patient receive in-office counseling?
- If yes, was patient referred for nutritional counseling?
- Did patient achieve appropriate weight gain at 28 weeks?

Resources

- A Healthy Baby is Worth the Weight at <http://www.healthy-baby.org> (a campaign of the Colorado Department of Public Health and Environment.) This campaign developed a BMI wheel and corresponding BMI chart utilized by the Collaborative.



- March of Dimes Web site: <http://www.marchofdimes.com> (English) or <http://www.nacersano.org> (Spanish).

References

- American Dietetic Association: *Expect the Best: Your Guide to Healthy Eating Before, During, and After Pregnancy*; John Wiley and Sons, Inc., Hoboken, NJ; 2009.
- Division of Nutrition and Physical Activity: *Research to Practice Series No. 4: Does breastfeeding reduce the risk of pediatric overweight?* Atlanta: Centers for Disease Control and Prevention, 2007.
- Huang, J. S., Lee, T. A. & Lu, M. C. (2006). Prenatal Programming of Childhood Overweight and Obesity. *Maternal and Child Health Journal*, 11(5), 461-473.
- Mangels R, & Kavanagh-Prochaska K. (2009). Vegan nutrition in pregnancy and childhood. From The vegetarian resource group Web site: www.vrg.org/nutrition/pregnancy.htm
- Nord, M., Coleman-Jensen, A., Andrews, M., & Carlson, S. (2010). Household food security in the United States, 2009. Washington (DC): U.S. Department of Agriculture, Economic Research Service. Economic Research Report No. ERR-108. Available from <http://www.ers.usda.gov/publications/err108>.
- North Carolina Division of Public Health, Nutrition Services Branch, Nutrition Risk Criteria.
- Position of the American Dietetic Association: Nutrition and Lifestyle for a Healthy Pregnancy Outcome. (2008). *J Am Diet Assoc*, 108, 553-561.
- United States Department of Agriculture (USDA), 2010 Dietary Guidelines for Americans. <http://www.cnpp.usda.gov/dietaryguidelines.htm>
- Vermont Department of Health Women, Infants, and Children (WIC). <http://healthvermont.gov/wic/>
- Vermont Department of Health (VDH), State of Vermont 2008 Vital Statistics. 124th report. <http://www.healthvermont.gov/research/stats/2008/2008vital.aspx>.
- Weight Gain During Pregnancy: Reexamining the Guidelines. (2009). Institute of Medicine, The National Academies Press.
- Whitaker, R. (2004). Predicting preschool obesity at birth: The role of maternal obesity in early pregnancy. *Pediatrics*, 114(1), e29-36.

Resources

- Abrams, B., Altman, S.L., & Pickett, K.E. (2000). Pregnancy weight gain: still controversial. *American Journal of Clinical Nutrition*, 71(suppl), 1233S-1241S.
- Bodar, L.M., & Siega-Riz, A.M. (2002) A diet quality index for pregnancy detects variation in diet and differences by sociodemographic factors. *Public Health Nutrition*, 5, 801-809.
- Brown, J.E., & Carlson, M. Nutrition and multifetal pregnancy. (2000) *Journal of American Diabetic Association*, 100, 343-348.
- Galtier-Deure, F., Boegner, C., & Bringer, J. (2000). Obesity and pregnancy: complications and cost. *American Journal of Clinical Nutrition*, 71(suppl), 1242S-1248S.
- King, J.C. (2002). Physiology of pregnancy and nutrient metabolism. *American Journal of Clinical Nutrition*. 71(suppl), 1218S-1225S.
- March of Dimes. Your pregnant body. Accessed May 26, 2011. http://www.marchofdimes.com/Pregnancy/yourbody_weightgain.html
- Olson, C.M., & Strawderman, M.S. (2003). Modifiable behavioral factors in a biopsychosocial model predict inadequate and excessive gestational weight gain. *Journal of American Diabetic Association*, 103(1), 48-54.
- Position of the American Dietetic Association: Nutrition and lifestyle for a healthy pregnancy outcome . (2002). *Journal of American Diabetic Association*, 102, 1479-1490.
- Picciano, M.F. (2003). Pregnancy and lactation: physiological adjustments, nutritional requirements, and the role of dietary supplements. *Journal of Nutrition*, 133, 1997S-2002S.
- Siega-Riz, A.M., Herrman, T.S., & Thorp, J.M. (2001). Frequency of eating during pregnancy and its effect on preterm delivery. *American Journal of Epidemiology*, 153, 647-652.
- Strychar, I.M., Chabot, C., Champagne, F., Ghadirian, P., Leduc, L., Lemonnier, M. C., Reynaud, P. (2000). Psychosocial and Lifestyle Factors Associated With Insufficient and Excessive Maternal Weight Gain During Pregnancy. *Journal of American Diabetic Association*, 100, 353-356.



Five A's for Nutrition

| Weight category | Pre-pregnancy BMI | Weight Gain (lbs.) | |
|-----------------|-------------------|--------------------|----------------------|
| | | Total | Rate (lbs per week)* |
| Underweight | <18.5 | 28 to 40 lbs. | 1.0 |
| Normal | 18.5 to 24.9 | 25 to 35 lbs. | 1.0 |
| Overweight | ≥25.0 to 29.9 | 15 to 25 lbs. | 0.6 |
| Obese | >30.0 | 11 to 20 lbs. | 0.5 |

Twins = Aim for 37-54 lbs.

Triplets = Aim for 45-60 lbs.

*Rate of weight gain for second and third trimester

IOM 2009: Weight Gain During Pregnancy: Reexamining the Guidelines.

Washington, D.C.: National Academies Press.

ASK (1 Minute):

- Do you know how much weight you should gain in your pregnancy?
- (Previous pregnancies) How much weight have you gained in previous pregnancies?
- Have you ever had any problems with weight in the past (eating disorders, overweight, difficulty gaining or losing weight after pregnancy)
- How often do you eat a meal or snack?
- Can you make one change to your diet? (use snack list)
- How is your appetite?
- Have you made any changes to your diet since you became pregnant (or since your last visit)?

ASSESS (1 minute):

- Are you interested in making changes to your diet?
- Do you think that you could eat six times a day (small meals or snacks)?
- Do you know how to get 300 calories a day in a healthy way?
- Do you have enough money to buy food?
- Do you suffer from nausea, vomiting, heartburn or constipation?
- ▶ Assess BMI based on pre-pregnancy weight and height to determine recommended weight gain range.
- ▶ Plot and track weight gain on Prenatal Weight Gain chart at each appointment.

ADVISE (1 minute):

- Gaining weight within these guidelines may prevent problems during pregnancy and can help you and your baby be healthy.
- Eating six small meals or snacks every day can help you prevent problems during pregnancy. It is especially important to not go longer than 12 hours without eating. This means you should eat a small snack before going to bed each night.
- Did you know that women only need about 300 extra calories each day to gain weight in pregnancy?
- (Praise and reinforce appropriate weight gain) I see you've gained the right amount of weight since our last visit. You're doing a great job.
- (Encourage change if weight gain is inappropriate) As your physician/nurse, I feel I should tell you that the recommended amount of weight you should gain is _____. Let's continue to work towards that goal.

ASSIST (3 minutes +):

- ▶ Provide the "How Much Weight Should I Gain" patient tool with list of "healthy" 300 kcal snacks to add to diet.
- ▶ Self evaluation for frequency of eating.
- ▶ Setting a nutritional goal.
- ▶ Problem solving for nausea
 - Weight gain is related to the baby's growth, and is not just excess fat.

ARRANGE (1 minute +):

- ▶ Assess weight, appetite, changes to diet at every visit, and encourage continued, steady gains.
- ▶ Refer to nutrition counselor prn (red flags).
- ▶ WIC? Food Stamps?
- ▶ Provide more information for those who request it.



Name: _____ Provider: _____ Date: _____

How much weight should I gain?

Your Pre-Pregnancy Body Mass Index –BMI: _____

Body Mass Index (BMI) is number that shows body weight adjusted for height. A woman's BMI *before pregnancy* helps predict how much she should gain *during pregnancy* to reduce the chance of having problems.

Your desired weight gain for this pregnancy is _____

Gaining weight within this range is one thing that you can do to help yourself have a healthy pregnancy. Since every woman and every pregnancy is different, gaining this much weight isn't a guarantee of a healthy pregnancy. Weight gain is just one factor.

Where does all the weight gain go?

You and your baby need to grow during pregnancy. Many important tissues inside mom grow and develop during the pregnancy. Weight gain isn't just fat and baby. Surprised? These tissues are *critical* to a healthy pregnancy. In mom these include:

- ♥ Mom's Blood and Fluids — 6 to 7 pounds
- ♥ Uterus — 3 to 4 pounds
- ♥ Placenta and Amniotic Fluid — 4 to 6 pounds
- ♥ Breast — about 2 pounds

Yes, some weight gain is fat. Science has shown that gaining within your desired range usually means less extra fat after pregnancy. This is another good reason to try to stay within your desired weight range.

One good way to manage your weight during pregnancy is regular exercise, like walking or swimming. Ask your provider what is right for you.

How and what do I eat to gain weight correctly?

On average, your body only needs 300 extra calories a day during pregnancy. Small meals and snacks each day are very important. Three small meals and two or three snacks is best. Eat often and don't go longer than 12 hours without eating. This usually means that you should have a small snack before bed. Take a vitamin with folic acid everyday too. The back of this handout has healthy snack ideas.

Tips for Healthy Eating and Weight Gain

- ♥ Add no more than 300 extra calories a day to your usual diet. This will help you stay within your desired weight gain goal.
- ♥ Eat or drink something at least every 2 hours while awake.
- ♥ Don't leave more than 12 hours between meals or snacks
- ♥ Three meals and two or three small snacks.
- ♥ NEVER skip a meal.
- ♥ Take your vitamin each day



Eating two snacks of about 150 calories each is an easy way to get the extra 300 calories you need. Aim for two food groups in each snack. Think small portions – imagine the size that you would serve to a young child. Eat fresh or frozen first, processed last. Try these healthy suggestions.

- Yogurt with fresh or frozen fruit (any kind!)
- Yogurt with sunflower seeds
- Low-fat cottage cheese with fruit (any kind) or tomato juice
- One half cheese or meat sandwich
- 1 slice or one cube of cheese and crackers
- Orange segments dipped in low-fat vanilla pudding
- Small apple or pear with slice of cheese
- ¼ cup dried fruit and nut mix; try cranberries and cashews or pistachios
- 3 graham crackers or ½ English muffin with peanut butter
- ¼ cup peanuts and raisins mix
- ½ cup Chex-mix with peanuts
- Rice cake spread with peanut butter and banana or meat and mustard
- A few celery sticks with cream cheese and raisins
- Low-fat chocolate milk (make it hot in the winter)
- Multigrain toaster waffle with apple butter
- Small oatmeal and raisin cookie with 4 oz skim milk
- Small tortilla with melted cheddar
- Half an ear (frozen) corn sprinkled with cheddar cheese
- Hard-boiled egg and a small piece of fruit
- Small Applesauce cup sprinkled with granola or mixed into ½ cup yogurt
- 4 oz orange juice mixed with plain yogurt
- One slice turkey or ham wrapped in leafy green lettuce
- Low fat (baked) tortilla or bagel chips with salsa
- Skim milk and 2 chocolate wafer cookies
- Spread avocado thinly on one slice whole wheat toast
- ½ sweet potato with ½ apple, baked or cooked together in a microwave
- Wrap a pickle with a slice of turkey
- Grape or cherry-sized tomatoes with sliced turkey
- Raw celery and carrots in low-fat spinach or yogurt dip
- Small bowl oatmeal (about ½ cup) with dried fruit and milk (not flavored instant!)
- Sardines on hard crackers
- One slice low-fat zucchini or banana bread
- Small baked potato with plain yogurt and chives
- Small bowl whole grain cereal with fat free milk
- Low fat microwave popcorn with 4 oz fruit juice
- ½ small cinnamon-raisin bagel spread with peanut butter or low-fat ricotta cheese
- Pretzels with carrot sticks
- Small container of tuna with 3 crackers or ½ toasted English muffin
- Frozen grapes with 1 piece string cheese
- 1 fig bar with 8 oz low fat milk
- 1 cup leftover pasta with tomato sauce
- 8-10 animal crackers and ½ banana
- ½ cup soft serve ice cream with strawberries
- 1 cup vegetable soup with 4 saltines



Nutrition Risk in Pregnancy

There are many situations that may lead to compromise of nutritional status just prior to or at the onset of pregnancy. Given that approximately two thirds of women are currently overweight or obese and nearly 15 percent of American households are unable to acquire adequate food to meet their needs because of insufficient money or other resources for food (Nord et al, 2009), many women may be at risk. This list includes items where there is not only a nutritional risk, but also a benefit to nutrition intervention.

Risks prior to pregnancy should be monitored, as these risks typically do not disappear, but rather may diminish during pregnancy. At the same time, additional risks may develop due to compromised intake or increased nutritional needs. What appear to be even small concerns should be put into the context of nutritional status.

Common Nutritional Risk Factors Prior to or at Onset of Pregnancy

- Pre-pregnancy Underweight (BMI<18.5)
- Pre-pregnancy Obesity (BMI >30.0)
- Is younger than 15 or has a gynecological age of less than 2 years (< 2 years of menarche)
- Recent, non-therapeutic weight loss of >5% body weight in less than one month or 7.5% in the past three
- Frequent “diets” to lose weight in the last six months
- Eating disorder – current or history of
- Anemia (<11.0 Hgb)
- High parity and a young age (less than 20 with three or more pregnancies carried to 20 weeks)
- Conception within 16 months of the delivery of an infant with birthweight > 500 grams or 20 weeks gestation
- Faddish food habits; e.g. avoids types or categories of foods; long eating spans; other aversions
- Vegetarian diet that is not properly planned
- Has a metabolic disease such as diabetes or inborn error of metabolism (e.g. phenylketonuria)
- Other chronic condition affecting absorption or utilization of nutrients as well as treatment/medications that interact with nutrients’. Pay special attention to serious gastrointestinal disorders such as Crohn’s disease and short bowel syndrome; food allergies; lupus erythematosus; prolonged infections; HIV; hypothyroidism; cystic fibrosis; asthma; renal disease; serious dental disease
- Depression; bi-polar disorder; schizophrenia
- History of bariatric or gastric bypass surgery
- Is currently breastfeeding a child
- Poor obstetrical history that includes poor fetal development
- Is economically deprived or lives far from a grocery store
- Elevated blood lead level
- Substance use (alcohol, illegal drugs, tobacco)
- Low income/poverty or food insecurity



Nutritional Problems During Pregnancy

- Inappropriate weight gain:
 - Women with low pregravid weight failing to gain 1 # per week after 12 weeks
 - Loss > 2 # after 13 weeks
 - Gain < 4# or > 7# per month
- Nausea and vomiting of pregnancy; constipation; heartburn
- Serious or significant food aversions including faddish food habits
- Reported/suspected poor diet quality (often noticed through weight changes, but not always)
- Faddish food habits
- Anemia (<9.9 Hgb in any trimester)
- Multifetal gestation
- Pregnancy induced conditions such as gestational diabetes; Hyperemesis gravidarum
- Poor folic acid, calcium, iron intake due to aversions, pica or cravings
- Use of herbal remedies that may not be safe during pregnancy (See ADA position paper)
- Food-borne illness
- Substance use (alcohol, illegal drugs, tobacco)
- Elevated blood lead level

Intervention

Talking About Nutrition:

- Knowledge is important! Talking about weight gain recommendations is more likely to achieve the Institute of Medicine goals. Set goals together.
- Frequency of eating is an important indicator for outcome and diet quality. Provide ideas of snacks that are not high calorie nor high fat.
- Don't overlook readiness to change! Make sure she is ready to talk about it – especially if it is a problem.
- Ask about food security issues not just hunger. Poor income leads to purchase of non-nutrient dense foods that have lots of calories! Overweight and/or high weight gain can go along with lack of access to food.
- Trigger questions are a great way to get the conversation going. A few simple, open-ended questions can garner a lot of information. Some good examples are below.

1. **Have you made any changes to the way you eat since you found out you are pregnant?**

- a. No – How many times a day do you eat? Do you intend to make any changes in the near future or because of your pregnancy? If concerned you can ask: what kinds of foods do you usually eat; are there foods that you avoid?
- b. Yes - Tell me about them. Did someone tell you to do this? How many times a day do you eat? Are you eating a lot more, a little more, a lot less or a little less.

2. **Today, you weight was _____ How do you feel about that number?**

- a. Have you recently gained or lost a lot of weight?
- b.



3. **How much weight do you think you should gain during this pregnancy?**
 - a. **According to how much you weighed before pregnancy, your goal should be _____ . Do you think that is something that you can do?**
 4. Do you always have enough money to buy the food you need?
 5. Does the food you buy last and do you (or your household) have enough money to buy more?
 - a. Have you or anyone in your household ever cut the size of your meals or skipped them because there wasn't enough money for food?
- Refer red flags to nutritional counselor, WIC, Food Stamps, or food pantries as needed and available.
 - Refer to social worker, as available and nutritional counselor for assistance with stress and more intense nutritional counseling.
 - Refer to a mental health professional and a nutritional counselor if an eating disorder is suspected.

Follow-up

Closing the Nutrition Circle

- Assess weight, appetite, changes to diet, and access to food at every visit, and encourage continued, steady gains.
- Plot changes in weight on a graph, and look for trends that might indicate inappropriate weight gain.
- Follow-up on referrals, and continue ongoing re-assessment for changes in nutritional status.



Eating and Moving

A healthful diet during pregnancy is important, but not always easy to do. Help us get to know about your lifestyle by circling the single choice that best describes your habits on most days. There are no wrong or right answers. This tool is a quick, easy way to get to know you better.

1. How has the amount of food that you eat now changed compared with times when you were not pregnant?
 - a. A lot more
 - b. A little more
 - c. A little less
 - d. A lot less
 - e. I am not sure

2. How has the amount of physical activity you are getting compare with your physical activity level before you got pregnant?
 - a. A lot more
 - b. A little more
 - c. A little less
 - d. A lot less
 - e. I am not sure

3. How many times a day do you eat? This includes meals and snacks of all kinds.
 - a. Less than 3
 - b. 3 – 4
 - c. 5
 - d. 6
 - e. More than 6
 - f. I am not sure

4. How many times a week do you purchase and eat meals or snacks away from home? This includes vending machines, fast foods, delis, and all types of restaurants.
 - a. Never or rarely
 - b. 1-2
 - c. 3-4
 - d. 5-6
 - e. More than 6
 - f. I am not sure

5. How many servings of fruits and vegetables do you eat on most days? A serving is 1 cup raw and ½ cup cooked. For whole fruits and vegetables a serving is small to medium size. Juice can be counted for only one serving per day.
 - a. I usually drink only juice and do not eat any fruits or vegetables
 - b. 1 (juice or other)
 - c. 2
 - d. 3
 - e. 4 or more
 - f. I am not sure

6. How many ounces of non-diet soft drinks do you have a day. A can of soda is 12 ounces.
 - a. Never or rarely
 - b. Less than 12
 - c. More than 12
 - d. I am not sure

In the space below, please write how you feel about gaining weight during pregnancy and any general concerns & issues you have about healthful eating. Some examples of concerns we want to know about are: that you are worried weight will not go away after pregnancy; you do not have enough money for healthful foods; some foods make you very sick, you have food allergies, or you follow a special diet such as vegan. Use the back of this paper if you need more room.



Created by Dartmouth Hitchcock Medical Center OB/GYN with assistance from Lisa Richardson, MS, RD, LDN, North Carolina Division of Public Health and Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, Vermont. 2005. Last reviewed 2011.



Eating and Moving Quick Score**Red = 2 points****Blue = one point**

1. How has the amount of food that you eat now changed compared with times when you were not pregnant?
 - a. **A lot more**
 - b. A little more
 - c. A little less
 - d. **A lot less**
 - e. I am not sure
2. How has the amount of physical activity you are getting compare with your physical activity level before you got pregnant?
 - a. **A lot more (pregravid BMI < 18.5 only)**
 - b. A little more
 - c. A little less
 - d. **A lot less (all BMIs)**
 - e. I am not sure
3. How many times a day do you eat? This includes meals and snacks of all kinds.
 - a. **Less than 3**
 - b. **3 – 4**
 - c. 5
 - d. 6
 - e. **More than 6 (pregravid BMI >25.0)**
 - f. I am not sure
4. How many times a week do you purchase and eat meals or snacks away from home? This includes vending machines, fast foods, delis, and all types of restaurants.
 - a. Never or rarely
 - b. 1-2
 - c. 3-4
 - d. 5-6
 - e. **More than 6**
 - f. I am not sure
5. How many servings of fruits and vegetables do you eat on most days? A serving is 1 cup raw and ½ cup cooked. For whole fruits and vegetables a serving is small to medium size. Juice can be counted for only one serving per day.
 - a. **I usually drink only juice and do not eat any fruits or vegetables**
 - b. **1 (juice or other)**
 - c. **2**
 - d. 3
 - d. 4 or more
 - e. I am not sure
6. How many ounces of non-diet soft drinks do you have a day. A can of soda is 12 ounces.
 - a. Never or rarely
 - b. Less than 12
 - c. **More than 12**
 - d. I am not sure

Self-Reported Concerns:

- **Food insecurity, excessive concern about gaining weight, food allergies, special diet without medical reason such as vegan, low carbohydrate, very low fat.**
- **Any concerns related to healthful eating that professional believes will impact nutritional status**

Refer to RD with 5 or more points or Refer to RD with 3 points and following clinical indicators:

- Pregravid BMI is overweight (BMI>25.0) or underweight (BMI<18.5)
- Weight gain <4# per month after 13 weeks
- Weight gain >7# per month in any trimester
- Diagnosed mental illness or eating disorder
- Anemia not resolved with supplementation
- Reported domestic violence, substance abuse, low social support/feelings about motherhood



Women's Health for Life

Created by Dartmouth Hitchcock Medical Center OB/GYN with assistance from Lisa Richardson, MS, RD, LDN, North Carolina Division of Public Health and Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, Vermont. 2005. Last reviewed 2011.



Eating and Moving Suggested Scoring

1. How has the amount of food that you eat now changed compared with times when you were not pregnant?
 - 1 pt a lot more food
 - 1 pt a lot less food
2. How has the amount of physical activity you are getting compare with your physical activity level before you got pregnant
 - 1 pt a lot less activity
 - 1 pt a lot more if underweight
3. How many times a day do you eat? This includes meals and snacks of all kinds
 - 2 points less than 3
 - 1 pt 3-4 times
 - 1 pt more than 6 when overweight or obese
4. How many times a week do you purchase and eat meals or snacks away from home? This includes vending machines, fast foods, delis, and all types of restaurants.
 - 1 pt more than 6
5. How many servings of fruits and vegetables do you eat on most days? A serving is 1 cup raw and ½ cup cooked. For whole fruits and vegetables a serving is small to medium size. Juice can be counted for only one serving per day
 - 1 pt 1 or 2
 - 2 points if drinks only juice
6. How many ounces of non-diet soft drinks do you have a day. A can of soda is 12 ounces
 - 1 pt more than 12 ounces
7. For open-ended question
 - 2 points for food insecurity
 - 2 pts for excessive concern about gaining weight (professional discretion)
 - 2 pts food allergies
 - 2 pts for special diet without medical reason (eg. vegan)
 - 1 pt for other concerns related to healthful eating (professional discretion)

Refer with 5 total points with no other risk factors

Refer with 3 points when:

- Pregravid BMI is overweight (BMI>25.0) or underweight (BMI<18.5)
- Weight gain <4# per month after 13 weeks
- Weight gain >7# per month in any trimester
- Diagnosed mental illness or eating disorder
- Anemia not resolved with supplementation
- Reported domestic violence, substance abuse, low social support/feelings about motherhood



Created by Dartmouth Hitchcock Medical Center OB/GYN with assistance from Lisa Richardson, MS, RD, LDN, North Carolina Division of Public Health and *Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program*, Burlington, Vermont. 2005. Last reviewed 2011.



Prenatal Weight-Gain Chart

Name _____

Pre-pregnancy Weight:

Pre-pregnancy BMI:

Height:

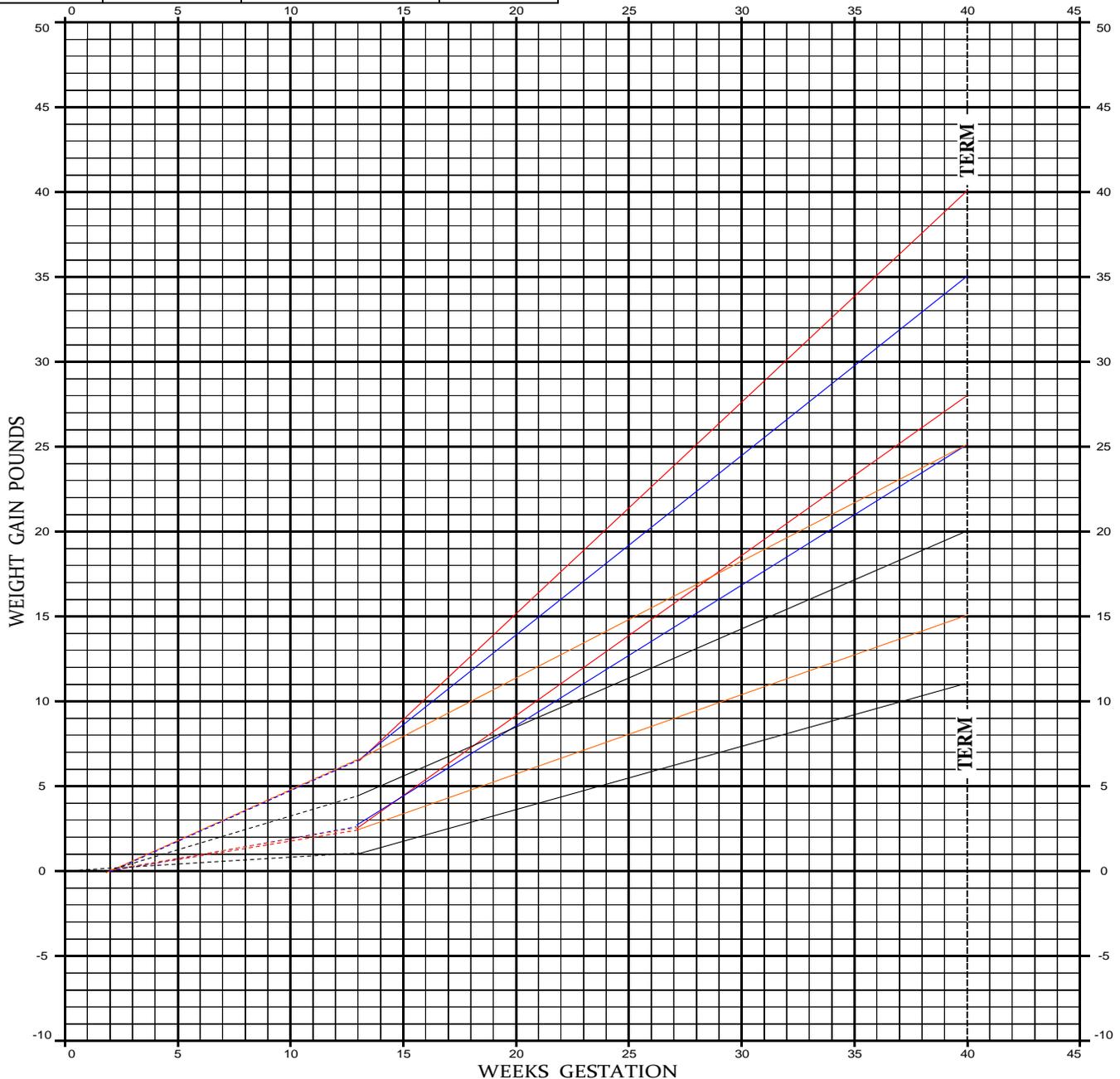
BMI = Weight (lb) ÷ Stature (in) ÷ Stature (in) x 703

Recommended Weight Gain*

- | | | |
|--------------------------------------|-----------|-----------|
| Check one: | Single: | Twins: |
| <input type="checkbox"/> Underweight | 28-40 lbs | n/a |
| <input type="checkbox"/> Normal | 25-35 lbs | 37-54 lbs |
| <input type="checkbox"/> Overweight | 15-25 lbs | 31-50 lbs |
| <input type="checkbox"/> Obese | 11-20 lbs | 25-42 lbs |

* IOM 2009. *Weight Gain During Pregnancy: Reexamining the Guidelines*. Washington, D.C.: National Academies Press.

| Date | Weight | Weight Gain | Hgb |
|------|--------|-------------|-----|
| | | | |
| | | | |
| | | | |
| | | | |



Body Mass Index (BMI) Table to Determine Weight Category Prenatal/Postpartum Women¹

| | | | | |
|--|---|-----------------------------------|---------------------------------|-------------------------------|
| To Calculate BMI: $\text{Weight (lb)} \div \text{Stature (in)} \div \text{Stature (in)} \times 703$ | Underweight | Normal weight | Overweight | Obese |
| Pregnant Women | <18.5 Pre-pregnant BMI | $18.5 - 24.9$ Pre-pregnant BMI | $25 - 29.9$ Pre-pregnant BMI | ≥ 30 Pre-pregnant BMI |
| Non-Breastfeeding Women and Breastfeeding Women < 6 months PP | $<18.5^*$ *Pre-pregnant BMI or Current BMI | $18.5 - 24.9$ Pre-pregnant BMI | $25 - 29.9$ Pre-pregnant BMI | ≥ 30 Pre-pregnant BMI |
| Breastfeeding Women ≥ 6 months PP | <18.5 Current BMI | $18.5 - 24.9$ Current BMI | $25 - 29.9$ Current BMI | ≥ 30 Current BMI |

¹ Values adapted from the Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults. National Heart, Lung and Blood Institute (NHLBI), National Institutes of Health (NIH). NIH Publication No. 98-4083.

Low Hemoglobin or Hematocrit [11]

| | 1 st trimester 1-13 wks | | 2 nd trimester 14-26 wks | | 3 rd trimester 27-40 wks | | Postpartum 12-14.9 yrs | | Postpartum 15 yrs and over | |
|--------------|---------------------------------------|----------------|--|----------------|--|----------------|---------------------------|----------------|-------------------------------|----------------|
| | g/dl | % | g/dl | % | g/dl | % | g/dl | % | g/dl | % |
| | Hgb< | Hct< | Hgb< | Hct< | Hgb< | Hct< | Hgb< | Hct< | Hgb< | Hct< |
| Nonsmoker | 11.0 | 33 | 10.5 | 32 | 11.0 | 33 | 11.8 | 36 | 12.0 | 36 |
| <1 pack/day | 11.3 | 34 | 10.8 | 33 | 11.3 | 34 | 12.1 | 37 | 12.3 | 37 |
| 1-2 pack/day | 11.5 | 34 | 11.0 | 33 | 11.5 | 35 | 12.3 | 37 | 12.5 | 38 |
| >2 packs/day | 11.7 | 35 | 11.2 | 34 | 11.7 | 35 | 12.5 | 37 | 12.7 | 38 |



Improving Prenatal Care in Vermont

Best Practice Provider Toolkit

Breastfeeding Readiness



Breastfeeding Readiness Improvement Checklist

Protecting, promoting, and supporting breastfeeding, with its many known benefits for infants, children, and mothers, are key strategies in our efforts toward improving multiple health and economic outcomes for families worldwide. Our nation benefits overall when mothers breastfeed. Recent research shows that if 90% of US families' breastfed exclusively for 6 months, nearly 1,000 deaths among infants could be prevented. The United States would also save \$13 billion per year. As medical care costs are lower for fully breastfed infants than never-breastfed infants. Breastfed infants typically need fewer sick care visits, prescriptions, and hospitalizations.

Reflective of the increasing rate of childhood obesity, it is of interest to note that the duration of breastfeeding is inversely related to pediatric overweight. Harder et al (2005) reported the greater the duration of breastfeeding, the lower the odds of overweight. For each month of breastfeeding up to age 9 months, the odds of overweight decreased by 4%.

High breastfeeding initiation rates (greater than 80%) show that most mothers in Vermont want to breastfeed and are trying to do so. As important as the decision to initiate breastfeeding is duration and the commitment to exclusive breastfeeding for at least 6 months. Although any amount of breast milk is beneficial, there is a dose-response effect and breastfeeding benefits are maximized with exclusive breastfeeding (Raisier et al, 1999). In 2007, the National Immunization Survey, Centers for Disease Control and Prevention, Department of Health and Human Services provisional data reported approximately 50% of Vermont women who are breastfeeding are continuing to breastfeed for 6 months or more but only 17% were exclusively fed breast milk at 6 months of age.

A prenatal intention to exclusively breastfeed has been shown to be a predictor of actual breastfeeding exclusivity. Early discussions with health care professionals can help women realize this commitment while exploring the supports and resource they will need to make exclusive breastfeeding a feasible and rewarding process for them, their infant and their family.

Since research has shown that women are highly receptive to health information as they plan their pregnancies, breastfeeding promotion should also be a part of well-women preconception and inter-conception health care visits. This is often a time when women are developing their immediate social networks and planning parenting strategies including plans to exclusively breastfeed.

Breastfeeding Readiness Goals (based on best practice guidelines, HP 2020, and/or planning committee consensus)

1. 100% of pregnant women will have a documented discussion regarding the importance of breastfeeding. (See Surgeon General Call to Action to Support Breastfeeding, 2011 (SGCA), Appendix 2: Excess Health Risks Associated with not breastfeeding <http://www.surgeongeneral.gov/>)
2. 90% of pregnant women will have documentation of intent to breastfeed by 34 weeks gestation.
3. 100% of pregnant women with a documented intention of breastfeeding will have a breast assessment documented by 34 weeks with appropriate interventions suggested or referral made.
4. 80% of women who indicated the intent to breastfeed will be exclusively breastfeeding at 2 weeks when contacted, as recommended for postpartum depression risk reduction.



Assessment

There are many different ways that communities support mothers and babies to breastfeed, and everyone plays a role. The United States has now met the Healthy People 2010 national objective for breastfeeding initiation. 3 out of every 4 new mothers, in the US, now start out breastfeeding. However, rates of breastfeeding at 6 and 12 months as well as rates of exclusive breastfeeding at 3 and 6 months remain stagnant and low, suggesting that even from the very start, mothers may not be getting the breastfeeding support they need.

- Assess knowledge and understanding of the importance regarding health benefits of breastfeeding for mother and infant
- Assess the provider and medical staff knowledge of the breastfeeding, the importance of the commitment, and their confidence in the process and techniques for supporting and encouraging initiation, duration and exclusivity. (See Berkley Media Studies Group, Issue 18: "Talking about Breastfeeding: Why the Health Argument Isn't Enough," <http://www.bmsg.org/pub-issues.php>)
- Assess the current system to guarantee continuity of skilled support for lactation between hospital and healthcare settings in the community. (See SGCA - Action 8. <http://www.surgeongeneral.gov/>)
- Assess patient's confidence regarding their abilities to successfully initiate and continue breastfeeding for at least 6 months. Discuss past experiences, peer, partner and family support and knowledge of resources which would encourage and enable breastfeeding initiation and longevity
- Assess breasts, identify changes during pregnancy. Assess for inverted nipple, tattoos or piercings, and breast surgery

Interventions

Interventions to promote breastfeeding attempt to increase its initiation, exclusivity, and duration. Six interventions with evidence based effectiveness are: maternity care practices, support for breastfeeding in the workplace; peer support; educating mothers; professional support; media and social marketing

- Improve the office-based culture of breastfeeding by seeking opportunities for staff to renew certifications and/or attend educational trainings for knowledge updates and skills training. Several community resources offer economical options and resources for updates in education. For example, the Vermont Department of Health holds an annual breastfeeding symposium at a minimal cost for attendees
- Provide educational opportunities for office staff and providers to attend trainings for updates in breastfeeding knowledge and support skills (SGCA – Action 9 – Health Care: Increase opportunities for continuing education on the management of lactation to ensure the maintenance of minimum competencies and skills) <http://www.surgeongeneral.gov/>
- Accelerate implementation of the Baby-Friendly Hospital Initiative in your community and State. (SGCA – Action 7) <http://www.surgeongeneral.gov/>
- Develop systems to guarantee continuity of skilled support for lactation between hospital and healthcare settings in the community. (Surgeon General Call to Action 8) <http://www.surgeongeneral.gov/>
 - o Participate in a community network for home or clinic based follow-up care to be provided to every newborn in the state.
 - o Participate in partnerships for integrated and continuous follow-up care after discharge from the hospital.
 - o Establish and implement policies and programs to ensure that participants in WIC have services in place before discharge from the hospital.
- Inform all pregnant women about the importance of breastfeeding for the health of all mothers and infants (SGCA – Action 1 – Mothers and their Families: Help pregnant women to learn about the importance of breastfeeding for their babies and themselves) <http://www.surgeongeneral.gov/>
 - o Talk to mothers about breastfeeding plans



- Keep up to date on breastfeeding best practices
 - Give mothers the telephone number for the breastfeeding expert in your practice
 - Refer to community breastfeeding supports
 - Encourage moms to prepare for common breastfeeding challenges (milk transfer, nipple pain, sleep deprivation and fatigue, 24 hour commitment)
 - Offer encouraging and supportive words – research shows they make a difference: “Learning to Breastfeed can be challenging but, you can do it” or “Breastfeeding is important for you and for your baby” or “Don’t give up. It will get easier.”
- ❑ Encourage mothers to include their plan for exclusive breastfeeding on their birth plans, as appropriate
 - ❑ Encourage mothers to ask for help with breastfeeding when needed. (SGCA – Action 1 - Mothers and their Families) <http://www.surgeongeneral.gov/>
 - Give mothers the telephone number for the breastfeeding expert in your practice
 - Refer to community breastfeeding supports
 - ❑ Encourage reading, in-office discussions and attendance at a local breastfeeding classes or La Leche League meetings. Avoid educational materials provided by formula companies (Howard et al., 2000)
 - ❑ Refer to peer counseling resources
 - ❑ Assess for any medical or physical condition in the first trimester that could affect the mother’s ability to breastfeed. If any of these are identified, prenatal providers may refer to lactation professional (Academy of Breastfeeding Medicine [ABM] Protocol Committee #5 revised 2008)
 - ❑ Refer women with inverted and non-protractile-nipples to an International Board Certified Lactation Consultant (IBCLC) for thorough assessment or for questions or concerns
 - ❑ Encourage use of available medical plan benefits for breastfeeding consultation and breast pump rentals
 - ❑ Establish systems to control the distribution of infant formula hospital and practice settings. (SGCA -Action 7) <http://www.surgeongeneral.gov/>
 - ❑ Define standards for clinical practice that will ensure continuity of care for pregnant women and mother-baby pairs in the first four weeks of life. (SGCA - Action 10) <http://www.surgeongeneral.gov/>
 - ❑ Include support for lactation as an essential medical service for pregnant women, breastfeeding mothers, and children. (SGCA - Action 11) <http://www.surgeongeneral.gov/>
 - ❑ Consider providing assistance to breastfeeding women through professionally staffed hotlines or other informational resources

Follow-up

- ❑ Follow-up on referrals, and continue ongoing re-assessment of your patient’s breastfeeding commitment and supports
- ❑ Document breastfeeding status at postpartum visit providing in-office encouragement while reinforcing peer and community support resources
- ❑ Ensure that health care professionals have the knowledge and resources to make evidence-based recommendations and treatment decisions that optimize breastfeeding outcomes.
- ❑ Create a breastfeeding friendly office/clinic including breastfeeding policies (See AMB protocol 19 <http://www.bfmed.org/Resources/Protocols.aspx>)

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring, and being documented, regularly (i.e., quarterly) review patient charts within the first, third and/or four trimesters for the following indicators:

- ❑ Track percent of pregnant women with documented intention to exclusively breastfeed
- ❑ Track percent of women with a breast assessment in first trimester
- ❑ Track percent of women who attend prenatal breastfeeding class
- ❑ Track percent of women that are exclusively breastfeeding at hospital discharge



- ❑ Track percent of women who contact your office and receive a referral to a LC, peer, or other community support
- ❑ Track percent of women at their postpartum visit who are breastfeeding exclusively
- ❑ Consider separating data under Medicaid and Non-Medicaid recipients
- ❑ Share data and partner with local WIC office to improve initiation, duration and exclusivity of breastfeeding for your WIC-eligible patient population

Resources

- Academy of Breastfeeding Medicine Protocol Committee. (2008). ABM clinical protocol #5: Peripartum Breastfeeding Management for the Healthy Mother and Infant at Term Revision, June 2008 <http://www.bfmed.org/Resources/Protocols.aspx>
- Academy of Breastfeeding Medicine Protocol Committee. (2009). Clinical Protocol Number #19: Breastfeeding Promotion in the Prenatal Setting. *Breastfeeding Medicine*, 4(1), 43-45. <http://www.bfmed.org/Resources/Protocols.aspx>
- Berkley Media Studies Group, Issue 18: "Talking about Breastfeeding: Why the Health Argument Isn't Enough," <http://www.bmsg.org/pub-issues.php>
- Breastfeeding Friendly USA: Info@babyfriendlyusa.org
- Centers for Disease Control and Prevention. (2007). *Does breastfeeding reduce the risk of pediatric overweight?* Division of Nutrition and Physical Activity: Research to Practice Series No. 4: Atlanta, GA.
- Szucs, K., Miracle, D. J., & Rosenman M. B. (2009). Breastfeeding knowledge, attitudes, and practices among providers in a medical home. *Breastfeeding Medicine*, 4(1), 31-42.
- The United States Breastfeeding Committee (USBC) is an independent nonprofit coalition of more than 40 nationally influential professional, educational, and governmental organizations, that share a common mission to improve the Nation's health by working collaboratively to protect, promote, and support breastfeeding. <http://www.usbreastfeeding.org/>
- Wellstart International Celebrating 25 years of Protecting, Promoting and Supporting Optimal Infant and Young Child Feeding through Health Professional Education has Lactation Management Self-Study Modules, which can be download free of charge <http://www.wellstart.org/>
- WHO Library Cataloguing-in-Publication Data. Guidelines on HIV and infant feeding. 2010. Principles and recommendations for infant feeding in the context of HIV and a summary of evidence. http://www.who.int/child_adolescent_health/documents/9789241599535/en/index.html
- Vermont Department of Health. Women, Infants and Children Division <http://www.healthvermont.gov/wic/food-feeding/breastfeeding/>
- Vermont Lactation Consultant Association www.vlca.org
- Division of Nutrition and Physical Activity: Research to Practice Series No. 4: Does breastfeeding reduce the risk of pediatric overweight? Atlanta: Centers for Disease Control and Prevention, 2007. www.cdc.gov/nccdphp/dnpa/nutrition/pdf/breastfeeding_r2p.pdf
- Hale, T. (2010). Medications and Mother's Milk. 14th Edition. Amarillo, TX: Hale Publishing.

Reference

- Academy of Breastfeeding Medicine Protocol Committee. (2008). ABM clinical protocol #5: Peripartum breastfeeding management for the healthy mother and infant at term. *Breastfeeding Medicine*, 3(2), 129-132. doi:10.1089/bfm.2008.9998.
- American Academy of Family Physicians. Family Physicians Supporting Breastfeeding. Position Paper, 2008. <http://www.aafp.org/online/en/home/policy/policies/b/breastfeedingpositionpaper.html> Accessed May 3, 2011.



- Center for Disease Control and Prevention.(2011). The CDC Guide to Breastfeeding Interventions. <http://www.cdc.gov/breastfeeding/resources/guide.htm> Accessed April 25, 2011.
- Center for Disease Control and Prevention, National Immunization Survey. Breastfeeding Report Card, 2007 <http://www.cdc.gov/breastfeeding/data/reportcard.htm>
- CDC National Immunization Survey, Provisional Data, 2007 births. http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm
- Chapman D. J., Damio, G., Young, S., et al. (2004). Effectiveness of breastfeeding peer counseling in a low-income, predominantly Latina population: A randomized controlled trial. *Archives of Pediatric Adolescent Medicine*,158, 897–902.
- DiGirolamo, A., Thompson, N., Martorell, R., Fein, S., & Grummer-Strawn, L. (2005). Intention or experience? Predictors of continued breastfeeding. *Health Education and Behavior*, 32, 208-226.
- Gross, S.M., Resnik, A.K., Nanda, J.P., Cross-Barnet, C., Augustyn, M., Kelly, L., & Paige, D. M. (2011). Early Postpartum: A Critical Period in Setting the Path for Breastfeeding Success. *Breastfeed Medicine* (3).
- Harder, T., Bergmann, R., Kallischnigg, G., & Plagemann, A. (2005). Duration of breastfeeding and risk of overweight: a meta-analysis. *American Journal of Epidemiology*, 162, 397-403.
- Howard, C. R., Howard, F. M., Lawrence, R. A., Andresen, E., DeBlicck, E., & Weitzman, M. (2000). The effect on breastfeeding of physicians' office-based prenatal formula advertising. *Obstetrics and Gynecology*, 95(2), 296-303.
- MAIN Trial Collaborative Group. (1994). Preparing for breastfeeding: Treatment of inverted and non-protractile nipples in pregnancy. *Midwifery*, 10, 200-214.
- Raisier, J., Alexander, C. & O'Compo, P. (1999). Breast-feeding and infant illness: A dose-response relationship? *American Journal of Public Health*, 89(1), 25-30.



IS YOUR CLINIC BREASTFEEDING-FRIENDLY?

| Breastfeeding-Friendly Health Care Providers Office/Clinic Recommendations | Yes | No |
|--|------------|-----------|
| Physical Environment | | |
| Culturally appropriate educational and promotional materials that portray breastfeeding as the preferred method of infant feeding are visible in the office/clinic. | | |
| Infant formula, formula company materials, displays, and logos are not in public visibly. | | |
| Signs announcing “Breastfeeding Welcomed Here” are displayed throughout the office/clinic. | | |
| Support | | |
| Staff demonstrate a positive attitude towards breastfeeding and deliver positive and supportive messages. | | |
| Staff make women who choose to breastfeed in the office/clinic comfortable and empowered. | | |
| Mothers are offered names of professional and peer resources (ex: Le Leche League, WIC clinic breastfeeding coordinator, WIC peer counselor, public health nurse, breastfeeding mothers group, lactation consultants, etc.) to contact for ongoing encouragement, information, breast pumps, and other assistance. | | |
| Staff encourage the mother’s partner and/or support person(s) to participate in breastfeeding education and support sessions. | | |
| Your website and other material distributed to parents display positive breastfeeding messages. | | |

Adapted from Resource: Using Loving Support to Grow and Glow in WIC: Breastfeeding Training for local WIC staff

Other resources:

How to have a breastfeeding-friendly office. American Pediatric Association

www.aap.org/breastfeeding/files/.../AAP%20HaveFriendlyPractice.pdf

Sample Clinic Breastfeeding Policy

www.dhfs.state.wi.us/WIC

10 Steps to a Breastfeeding-Friendly Obstetric Office. (2002). Walker, M.

<http://www.massbfc.org/providers/10stepsob.html>

Vermont Law (Act 117) provides protection for women who nurse in public. For more information, contact the Vermont Human Rights Commission 800-416-2010 or

www.hrs.state.vt.us



We Care for Breastfeeding Babies

Sample Breastfeeding Policy in Office Settings

Because breastfeeding has been shown to be the superior form of infant nutrition, providing a multitude of health benefits to both infant and mother, and because breastfeeding employees need ongoing support from childcare providers to provide their milk for their babies. <<Childcare Center Name>> subscribes to the following policy.

1. Breastfeeding mothers shall be provided a place to breastfeed or express their milk.

Breastfeeding mothers, including employees, shall be provided a private and sanitary place to breastfeed their babies or express milk. This area provides an electrical outlet, comfortable chair, and nearby access to running water.

2. A refrigerator will be made available for storage of expressed breast milk.

Breastfeeding mothers and employees may store their expressed breast milk in the center refrigerator. Mothers should provide their own containers, clearly labeled with name and date. The center will follow guidelines from the American Academy of Pediatrics and Centers for Disease Control in ensuring that breast milk is properly treated to avoid waste. Universal precautions are not required in handling human milk.

3. Sensitivity will be shown to breastfeeding mothers and their babies.

The childcare center is committed to providing ongoing support to breastfeeding mothers, including providing an opportunity to breastfeed their baby in the morning and evenings, and holding off giving a bottle, if possible, when mom is due to arrive. Artificial baby milks (formula) and solid foods will not be provided unless the mother has requested. Babies will be held closely when feeding and bottles will never be propped.

4. Staff shall be trained in handling human milk.

All childcare center staff will be trained in the proper storage and handling of human milk, as well as ways to support breastfeeding mothers.

5. Breastfeeding employees shall be provided flexible breaks to accommodate breastfeeding or milk expression.

Breastfeeding employees shall be provided a flexible schedule for breastfeeding or pumping to provide breast milk for their children. The time allowed would not exceed the normal time allowed for lunch and breaks. For time above and beyond normal lunch and breaks, sick/annual leave must be used, or the employee can come in a little earlier or leave a little late to make up the time.

6. Breastfeeding promotion information will be displayed.

The center will provide information on breastfeeding, including the names of area resources should questions or problems arise. In addition, positive promotion of breastfeeding will be on display in the center.

Adapted from the Mississippi Breastfeeding Coalition's *Building Breastfeeding Friendly Communities* project by the Wisconsin Department of Health and Family Services in collaboration with the Wisconsin Breastfeeding Coalition
Division of Public Health – Nutrition Section
PPH 40070 (6/03)
www.dhfs.state.wi.us/WIC

Also available for reference: State of Vermont Sample Policy
http://healthvermont.gov/wic/documents/childcare_policy.pdf



Confident Commitment Is a Key Factor for Sustained Breastfeeding

Alexis Avery, MPH, PhD, Kristine Zimmermann, MPH,
Patricia W. Underwood, PhD, RN, FAAN, and Jeanette H. Magnus, MD, PhD

ABSTRACT: Background: The characteristics that distinguish women who breastfeed successfully from those who do not are just beginning to be identified in breastfeeding literature. The objective of this study was to identify the processes contributing to breastfeeding decisions among Caucasian and African American women. **Methods:** Data were initially collected through 24 focus groups consisting of separate groups of African American and Caucasian pregnant women, and breastfeeding and formula-feeding mothers from three major United States cities. The focus group study was initiated by the U.S. Department of Health and Human Services to obtain data on salient messages that would inform a national campaign to promote breastfeeding. This study was a secondary analysis of those data using a modified grounded theory approach. **Results:** The process that emerged associated with successful breastfeeding was labeled "confident commitment." This process included several components: a) confidence in the process of breastfeeding, b) confidence in their ability to breastfeed, and c) commitment to making breastfeeding work despite obstacles. **Conclusions:** Contrary to popular conceptions, breastfeeding appears to be a learned skill. If mothers achieved a level of "confident commitment" before the birth, they were able to withstand lack of support by significant others and common challenges that occurred as they initiated breastfeeding. Without the element of "confident commitment," a decision to breastfeed appeared to fall apart once challenged. (BIRTH 36:2 June 2009) **Key words:** *breastfeeding, confidence, commitment, focus groups, qualitative research*

J Perinat Neonatal Nurs. 2007 Jul-Sep;21(3):216-24.

Predicting breast-feeding attrition: adapting the breastfeeding attrition prediction tool.

Gill, Sara L. PhD, RN, IBCLC; Reifsnider, Elizabeth PhD, APRN, BC;
Lucke, Joseph F. PhD; Mann, Angela R. MSN/MPH, RN

ABSTRACT: Context: Current breast-feeding rates fall short of the recommendations set forth in Health People 2010. The Breast-feeding Attrition Prediction Tool (BAPT), administered in the postpartum period, has been useful in predicting breast-feeding attrition. However, assessing a woman's intention to breast-feed prior to birth would identify women at risk for breast-feeding attrition. **Purpose:** The purpose of this study was to describe a revised BAPT, administered antepartally that measures intention to breast-feed. **Methods:** The BAPT, comprising 94 items on a 6-point Likert-type scale, was translated into Spanish and back-translated for accuracy. The BAPT was then revised by reducing the number of items to 35 (32 were used for analysis) and contracting the 6-point scale to 3 categories. A Bayesian item response model provided the psychometric properties of the revised BAPT. **Results:** The revised BAPT was completed by 143 Mexican American pregnant women. Items, some reverse scored, were re-coded as "agree" versus "disagree." Item analyses indicated a wide range of item discriminabilities, with most items being useful measures of intention to breast-feed. Person analyses provided scores for intention to breast-feed. A simpler scoring system was devised for applications. **Conclusions:** The revised BAPT shows promise as a measure of intention to breast-feed. The scoring system also indicates which women may need additional interventions to promote breast-feeding

JOGNN 2003 32, 734-744;



The Breastfeeding Self-Efficacy Scale: Psychometric Assessment of the Short Form

Dennis, Cindy Lee

ABSTRACT: Objective: The purpose of this study was to reduce the number of items on the original Breastfeeding Self-Efficacy Scale (BSES) and psychometrically assess the revised BSES–Short Form (BSES-SF). **Design:** As part of a longitudinal study, participants completed mailed questionnaires at 1, 4, and 8 weeks postpartum. **Setting:** Health region in British Columbia. **Participants:** A population-based sample of 491 breastfeeding mothers. **Main Outcome Measures:** BSES, Edinburgh Postnatal Depression Scale, Rosenberg Self-Esteem Scale, and Perceived Stress Scale. **Results:** Internal consistency statistics with the original BSES suggested item redundancy. As such, 18 items were deleted, using explicit reduction criteria. Based on the encouraging reliability analysis of the new 14-item BSES-SF, construct validity was assessed using principal components factor analysis, comparison of contrasted groups, and correlations with measures of similar constructs. Support for predictive validity was demonstrated through significant mean differences between breastfeeding and bottlefeeding mothers at 4 ($p < .001$) and 8 ($p < .001$) weeks postpartum. Demographic response patterns suggested the BSES-SF is a unique tool to identify mothers at risk of prematurely discontinuing breastfeeding. **Conclusions:** These psychometric results indicate the BSES-SF is an excellent measure of breastfeeding self-efficacy and considered ready for clinical use to (a) identify breastfeeding mothers at high risk, (b) assess breastfeeding behaviors and cognitions to individualize confidence-building strategies, and (c) evaluate the effectiveness of various interventions and guide program development. **Keywords:** Breastfeeding, Psychometric testing, Self-efficacy, Short form

Maternal and Child Health Journal. 2006 Volume 11, Number 5, 461-473

Prenatal Programming of Childhood Overweight and Obesity

Huang, JS · Lee, TA & Lu, MC

Abstract Objective: To review the scientific evidence for prenatal programming of childhood overweight and obesity, and discuss its implications for MCH research, practice, and policy. **Methods:** A systematic review of observational studies examining the relationship between prenatal exposures and childhood overweight and obesity was conducted using MOOSE guidelines. The review included literature posted on PubMed and MDConsult and published between January 1975 and December 2005. Prenatal exposures to maternal diabetes, malnutrition, and cigarette smoking were examined, and primary study outcome was childhood overweight or obesity as measured by body mass index (BMI) for children ages 5 to 21. **Results:** Four of six included studies of prenatal exposure to maternal diabetes found higher prevalence of childhood overweight or obesity among offspring of diabetic mothers, with the highest quality study reporting an odds ratio of adolescent overweight of 1.4 (95% CI 1.0–1.9). The Dutch famine study found that exposure to maternal malnutrition in early, but not late, gestation was associated with increased odds of childhood obesity (OR 1.9, 95% CI 1.5–2.4). All eight included studies of prenatal exposure to maternal smoking showed significantly increased odds of childhood overweight and obesity, with most odds ratios clustering around 1.5 to 2.0. The biological mechanisms mediating these relationships are unknown but may be partially related to programming of insulin, leptin, and glucocorticoid resistance *in utero*. **Conclusion:** Our review supports prenatal programming of childhood overweight and obesity. MCH research, practice, and policy need to consider the prenatal period a window of opportunity for obesity prevention. **Keywords** Prenatal programming, Childhood obesity, Overweight, Developmental programming, Fetal programming, Gestational diabetes, Maternal malnutrition, Cigarette smoking



UNICEF Breastfeeding: The Gold Standard

Why do we use **The Golden Bow** as the symbol for breastfeeding protection, promotion and support?

It's Meaning and Purpose:

Many social change efforts have used ribbons and pins to create a sense of belonging to a social movement. While The Golden Bow serves this purpose, it is unique in that it is not simply a symbol for social change, but carries many meanings within its own design. The Golden Bow is, in and of itself, a lesson in the protection, promotion and support of breastfeeding.

Gold: The use of the gold color for the bow symbolizes that breastfeeding is the gold standard for infant feeding, against which any other alternative should be compared.

A Bow: Why do we use a bow, rather than the looped ribbon of most campaigns? Each part of the bow carries a special message:

 One loop represents the mother.

 The other loop represents the child.

 The ribbon is symmetrical, telling us that the mother and child are both vital to successful breastfeeding - neither is to the left nor to the right, signifying neither is precedent, both are needed.

 The knot is the father, the family and the society. Without the knot, there would be no bow; without the support, breastfeeding cannot succeed. The ribbons are the future: the exclusive breastfeeding for six months, and continued breastfeeding for 2 years or more with appropriate complementary feeding, and the delay of the next birth, preferably for 3 years or more, to give the mother and child time together to recover and to grow, respectively, and to give the mother the time she needs to provide active care for the health, growth and development of this child.

Origins: While we have not been able to identify the origins of this symbolism, it has been in scattered use for about 8-10 years.

Much has been written about breastfeeding as "the gold standard" for infant feeding (<http://www.naba-breastfeeding.org> will soon carry an article first published in 1995 on this issue).

The Future: UNICEF is proud to launch this symbol and educational campaign on the 12th anniversary of the Innocenti Declaration. Please wear it proudly, and tell everyone who asks of its many meanings.

ABM Protocols

ABM Clinical Protocol #6: Guideline on Co-Sleeping and Breastfeeding

Revision, March 2008

THE ACADEMY OF BREASTFEEDING MEDICINE PROTOCOL COMMITTEE

A central goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

INTRODUCTION

THE ACADEMY OF BREASTFEEDING MEDICINE is a worldwide organization of physicians dedicated to the promotion, protection, and support of breastfeeding and human lactation. One of the goals of the Academy of Breastfeeding Medicine is the facilitation of optimal breastfeeding practices. This clinical guideline addresses an aspect of parenting that has a significant impact on breastfeeding: infant sleep locations.

BACKGROUND

The terms co-sleeping and bed sharing are often used interchangeably. However, bed sharing is only one form of co-sleeping. Co-sleeping, in reality, refers to the diverse ways in which infants sleep in close social and/or physical contact with a caregiver (usually the mother).¹ This operational definition includes an infant sleeping alongside a parent on a different piece of furniture/object as well as clearly unsafe prac-

tices such as sharing a sofa or recliner. Around the world the practice of co-sleeping can be very variable, and, as such, all forms of co-sleeping do not carry the same risks or benefits.² Some forms of parent-child co-sleeping provide physical protection for the infant against cold and extend the duration of breastfeeding, thus improving the chances of survival of the slowly developing human infant.^{1,3-5} The human infant, relative to other mammals, develops more slowly, requires frequent feedings, and is born neurologically less mature.^{1,3-5} In malaria settings, co-sleeping is recommended as the most efficient use of available bed-nets, and co-sleeping may be necessary in other geographic areas where available bedding or housing is inadequate. Bed sharing and co-sleeping have also long been promoted as a method to enhance parenting behavior or “attachment parenting” and also to facilitate breastfeeding.¹⁻¹³

Bed sharing and some forms of co-sleeping have been rather controversial in the medical literature in recent years and have received considerable negative comment.⁶⁻¹⁰ Some pub-

lic health authorities have discouraged all parents from bed sharing.^{11,12}

BED SHARING AND INFANT MORTALITY

The concerns regarding the bed sharing and increased infant mortality have been centered around mechanical suffocation (asphyxiation) and sudden infant death syndrome (SIDS) risks.

Asphyxiation risk

Several studies using *unverified death certificate* diagnoses concluded that a significant number of infants were asphyxiated as they slept in unsafe sleep environments caused by either accidental entrapment in the sleep surface or overlying by a sleeping adult or older child.^{6–10} The U.S. Consumer Product Safety Commission (USCPSC), using data from some of these studies, has made recommendations against the use of all types and forms of co-sleeping and advised parents against sleeping with their infants under any circumstances. The USCPSC is concerned about the absence of infant safety standards for adult beds and the hazards that may result from an infant sleeping in an unsafe environment.¹¹ All of these studies lack data on the state of intoxication of the co-sleeping adult (drugs or alcohol) and fail to consider the sleep position of the baby at time of death, even though prone sleep position appears to be one of the most significant risk factors for SIDS. The Commission also groups all bed sharing into one category, not separating known unsafe sleep environments such as sofas and couches, waterbeds, and upholstered chairs from other, safer sleep surfaces. In these studies, there is no assurance of the quality of the data collection, no consistency in the criteria employed in using the term “overlay,” and no validation of the conclusions. Bias by medical examiners and coroners may lead them to classify infant deaths that occur in an adult bed, couch, or chair in the presence of an adult as a rollover death even where there is no evidence that an actual overlay occurred. This is especially a problem in the absence of a

death scene examination and detailed interviews of those present at the time of death. There is no autopsy method to differentiate between death caused by SIDS versus death from accidental or intentional causes such as infant homicide by pillow smothering. Thus, infant deaths that occur in a crib are usually designated as SIDS, whereas deaths in a couch or adult bed are usually labeled as smothering. Further complicating analyses of infant deaths is the diversity of bed-sharing behaviors among different populations and even within the same families (i.e., bed sharing during the day vs. at night or when a baby is ill vs. when a baby is well), suggesting different levels of risk. A home visit study of families considered to be at high risk for SIDS because of socioeconomic status found that those bed sharing were more likely to place infants in the prone position and to use softer bed surfaces.¹⁴ Similarly, a population-based retrospective review found that “Bed-sharing subjects who breastfed had a risk profile distinct from those who were not breastfed cases. Risk and situational profiles can be used to identify families in greater need of early guidance and to prepare educational content to promote safe sleep.”¹⁵

SIDS prevention and risk

Several epidemiological studies and a meta-analysis have found a significant association between breastfeeding and a lowered SIDS risk, especially when breastfeeding was the exclusive form of feeding during the first 4 months of life.^{16,17}

However, there is insufficient evidence at this time to show a causal link between breastfeeding and the prevention of SIDS. Several studies have consistently demonstrated an increased risk of SIDS when infants bed share with mothers who smoke cigarettes.^{2,18–24} Exposure to cigarette smoke as a fetus and in infancy appears to contribute to this risk and is independent of other known risk factors, including social class. This has led to the recommendation, which is well supported in the medical literature, that infants not bed share with parents who smoke. A large meta-analysis, after review of over 40 studies, concluded that, “Evidence consistently suggests that there

may be an association between bed sharing and sudden infant death syndrome (SIDS) among smokers (however defined), but the evidence is not as consistent among nonsmokers. This does not mean that no association between bed sharing and SIDS exists among nonsmokers, but that existing data do not convincingly establish such an association."²⁵

ETHNIC DIVERSITY

The rates of SIDS deaths are low in Asian cultures in which co-sleeping is common. However, some argue that co-sleeping in these cultures is different from the bed sharing that occurs in the United States. As Blair and colleagues note in their study, "A baby sleeping at arm's length from the mother on a firm surface, as is often the case in Hong Kong, or a Pacific Island baby sleeping *on* the bed rather than *in* the bed is in a different environment from a baby sleeping in direct contact with the mother on a soft mattress and covered by a thick duvet."² Similarly, even within the United States there seems to be variation in bed-sharing practices based on ethnicity and race. A large, prospective study using multivariate analysis of bed sharing found that race or ethnicity appears to have the strongest association with bed sharing at all follow-up periods, with black, Asian, and Hispanic mothers four to six times more likely to bed share than white mothers.²⁶

In a study in Alaska, where there is a high rate of co-sleeping among Alaskan Native people, researchers found that almost all SIDS deaths associated with parental bed sharing occurred in conjunction with a history of parental drug use and occasionally in association with prone sleep position or sleeping on surfaces such as couches or waterbeds.²⁷ A study using the PRAMS (Pregnancy Risk Assessment Monitoring System) data set in Oregon found that "The women most likely to bed share are non-white, single, breastfeeding and low-income. Non-economic factors are also important, particularly among blacks and Hispanics. Campaigns to decrease bed sharing by providing cribs may have limited effectiveness if mothers are bed sharing because of cultural norms."²⁷

CONTROLLED LABORATORY STUDIES

McKenna and colleagues have studied bed sharing in the greatest scientific detail in a laboratory setting and have found that infants who shared a bed with the mother had more sleep arousals and spent less time in Stage 3 and 4 sleep. This may be protective against SIDS since deep sleep and infrequent arousals have been considered as possible risk factors for SIDS.^{3,28,29}

A similar study that was conducted in the natural physical environment of home instead of a sleep lab "compared the 2 different sleep practices of bed sharing and cot sleeping quantifying factors that have been identified as potential risks or benefits. Overnight video and physiologic data of bed-share infants and cot-sleep infants were recorded in the infants' own homes."³⁰ This study concluded that "Bed-share infants without known risk factors for sudden infant death syndrome (SIDS) experience increased maternal touching and looking, increased breastfeeding, and faster and more frequent maternal responses."³⁰ This increased interaction between mothers and babies may be protective.

PARENTAL FACTORS

The contribution of other parental factors to the risk of bed sharing is unclear. Blair and colleagues found in a multivariate analysis that maternal alcohol consumption of more than two drinks (one drink = 12 oz beer, 5 oz wine, or 1.5 oz distilled alcohol) and parental tiredness were associated with sudden infant death.² A study in New Zealand, however, did not show a clear link with alcohol consumption.²¹ The role of obesity was examined in one study of SIDS cases. They found the mean pre-gravid weights of bed-sharing mothers to be greater than those of non-bed-sharing mothers.⁷

If overlying is thought to be the mechanism of infant suffocation, it would seem plausible that the psychological and physical states of those sharing the bed with an infant could be of importance.

Room sharing with parents (infants sharing the same room as their parents as opposed to being in a separate room) appears to be protective against SIDS.^{2,31,32}

INFANT FACTORS

There is some evidence that bed sharing with younger babies <8–14 weeks may increase the risk of SIDS.^{2,31,32}

BREASTFEEDING AND BED SHARING

Research continues to show the strong relationship between breastfeeding and bed sharing/co-sleeping. A study of bed sharing and breastfeeding in the United States found that infants who routinely shared a bed with their mothers breastfed approximately three times longer during the night than infants who routinely slept separately. There was a twofold increase in the number of breastfeeding episodes, and the episodes were 39% longer.³³ Proximity to and sensory contact with the mother during sleep facilitates prompt responses to signs of the infant's readiness to breastfeed and provides psychological comfort and reassurance to the dependent infant as well as the parents. A large prospective study of more than 10,000 infants in the United State found that up to 22% of 1-month-old infants were bed sharing and that breastfeeding mothers were three times more likely to bed share than mothers who did not breastfeed. Ninety-five percent of infants who shared a bed did so with a parent.²⁶ Similarly, a study of parent-infant bed sharing in England found that "Breast feeding was strongly associated with bed-sharing, both at birth and at 3 months."³⁴

Based on the above information and literature, the Academy of Breastfeeding Medicine has the following recommendations for health-care providers.

RECOMMENDATIONS

- A. Because breastfeeding is the best form of nutrition for infants, any recommendations for infant care that impede its initiation or duration need to be carefully weighed against the many known benefits to infants, their mothers, and society.
- B. It should not be assumed that all families are practicing only one sleeping arrange-

ment all night every night and during the daytime as well. Healthcare providers should consider ethnic, socioeconomic, feeding, and other family circumstances when obtaining a history on infant sleep practices.^{2,14,15}

- C. Parents need to be encouraged to express their views and to seek information and support from their healthcare providers. Sensitivity to cultural differences is necessary when obtaining sleep histories.
- D. There is currently not enough evidence to support routine recommendations against co-sleeping. Parents should be educated about risks and benefits of co-sleeping and unsafe co-sleeping practices and should be allowed to make their own informed decision.

Bed sharing/co-sleeping is a complex practice. Parental counseling about infant sleep environments should include the following information:

1. Some potentially unsafe practices related to bed sharing/co-sleeping have been identified either in the peer-reviewed literature or as a consensus of expert opinion:
 - Environmental smoke exposure and maternal smoking^{2,18–25}
 - Sharing sofas, couches, or daybeds with infants^{2,8–12}
 - Sharing waterbeds or the use of soft bedding materials^{6,8–12}
 - Sharing beds with adjacent spaces that could trap an infant^{6,8–12}
 - Placement of the infant in the adult bed in the prone or side position^{6,8–12}
 - The use of alcohol or mind-altering drugs by the adult(s) who is bed sharing²
 - Infants bed sharing with other children¹²
 - Bed sharing with younger babies <8–14 weeks of age may be more strongly associated with SIDS.^{2,7,25,31,32}
2. Families also should be given all the information that is known about safe sleep environments for their infants, including:
 - Place babies in the supine position for sleep.¹²
 - Use a firm, flat surface and avoid waterbeds, couches, sofas, pillows, soft materials, or loose bedding.^{6,8–12}

- If blankets are to be used, they should be tucked in around the mattress so that the infant's head is less likely to be covered.¹²
- Ensure that the head will not be covered. In a cold room the infant could be kept in an infant sleeper to maintain warmth.^{6,8-12}
- Avoid the use of quilts, duvets, comforters, pillows, and stuffed animals in the infant's sleep environment.^{6,8-12}
- Never put an infant down to sleep on a pillow or adjacent to a pillow.^{6,8-12}
- Never leave an infant alone on an adult bed.^{6,8-12}
- Inform families that adult beds have potential risks and are not designed to meet federal safety standards for infants.^{6,8-12}
- Ensure that there are no spaces between the mattress and headboard, walls, and other surfaces, which may entrap the infant and lead to suffocation.^{6,8-12}
- Placement of a firm mattress directly on the floor away from walls may be a safe alternative. Another alternative to sharing an adult bed or sharing a mattress is the use of an infant bed that attaches to the side of the adult bed and provides proximity and access to the infant but a separate sleep surface. There are currently no peer-reviewed studies on the safety or efficacy of such devices.
- Room sharing with parents appears to be protective against SIDS.^{2,12,31,32}

RECOMMENDATIONS FOR FUTURE RESEARCH

- A. The Academy of Breastfeeding Medicine urges that more research be undertaken so that the benefits and risks of co-sleeping and bed sharing and their association with breastfeeding can be better understood.
- B. Researchers should employ well-designed, impartial, prospective protocols with standardized, well-defined data collection methods. Control data for comparison are an essential part of such research. Studies should be population based, so that actual risk of sudden infant death and overlying smothering due to bed sharing or co-sleeping can be computed. A denominator is needed for calculation of risk and for comparison with

- a population not practicing co-sleeping or bed sharing. In the final analysis, it is critical that dangerous, modifiable "factors" associated with bed sharing not be considered the same as bed sharing itself.
- C. The diversity of bed sharing/co-sleeping practices among the different ethnic groups in the United States and throughout the world needs to be carefully considered and documented as part of research protocols.
 - D. Continuing study of the impact of co-sleeping on infant behavior, SIDS, and breastfeeding is essential.

ACKNOWLEDGMENTS

This work was supported in part by a grant from the Maternal Child Health Bureau, U.S. Department of Health and Human Services.

REFERENCES

1. McKenna JJ, Thoman EB, Anders TF, et al. Infant-parent co-sleeping in an evolutionary perspective: Implications for understanding infant sleep development and the sudden infant death syndrome. *Sleep* 1993;16:263-282.
2. Blair PS, Fleming PJ, Smith IJ, et al. Babies sleeping with parents: Case-control study of factors influencing the risk of the sudden infant death syndrome. CESDI SUDI research group. *BMJ* 1999;319:1457-1461.
3. McKenna JJ. An anthropological perspective on the sudden infant death syndrome (SIDS): The role of parental breathing cues and speech breathing adaptations. *Med Anthropol* 1986;10:9-92.
4. McKenna JJ, Mosko S. Evolution and infant sleep: an experimental study of infant-parent co-sleeping and its implications for SIDS. *Acta Paediatr Suppl* 1993; 82(Suppl 389):31-36.
5. McKenna JJ, Mosko SS. Sleep and arousal, synchrony and independence, among mothers and infants sleeping apart and together (same bed): An experiment in evolutionary medicine. *Acta Paediatr Suppl* 1994;397: 94-102.
6. Byard RW, Beal S, Bourne AJ. Potentially dangerous sleeping environments and accidental asphyxia in infancy and early childhood. *Arch Dis Child* 1994;71: 497-500.
7. Carroll-Pankhurst C, Mortimer EA Jr. Sudden infant death syndrome, bedsharing, parental weight, and age at death. *Pediatrics* 2001;107:530-536.
8. Drago DA, Dannenberg AL. Infant mechanical suffocation deaths in the United States, 1980-1997. *Pediatrics* 1999;103:e59.
9. Kemp JS, Unger B, Wilkins D, et al. Unsafe sleep practices and an analysis of bedsharing among infants dy-

- ing suddenly and unexpectedly: Results of a four-year, population-based, death-scene investigation study of sudden infant death syndrome and related deaths. *Pediatrics* 2000;106:e41.
10. Nakamura S, Wind M, Danello MA. Review of hazards associated with children placed in adult beds. *Arch Pediatr Adolesc Med* 1999;153:1019–1023.
 11. U.S. Consumer Products Safety Commission. *CPSC Warns Against Placing Babies in Adult Beds*. Report Number SPSC Document #5091. U.S. Consumer Products Safety Commission, Washington, DC, 1999.
 12. The changing concept of sudden infant death syndrome: Diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk. *Pediatrics* 2005;116:1245–1255.
 13. Rosenberg KD. Sudden infant death syndrome and co-sleeping. *Arch Pediatr Adolesc Med* 2000;154:529–530.
 14. Flick L, White DK, Vemulapalli C, et al. Sleep position and the use of soft bedding during bed sharing among African American infants at increased risk for sudden infant death syndrome. *J Pediatr* 2001;138:338–343.
 15. Ostfeld BM, Perl H, Esposito L, et al. Sleep environment, positional, lifestyle, and demographic characteristics associated with bed sharing in sudden infant death syndrome cases: A population-based study. *Pediatrics* 2006;118:2051–2059.
 16. Ford RP, Taylor BJ, Mitchell EA, et al. Breastfeeding and the risk of sudden infant death syndrome. *Int J Epidemiol* 1993;22:885–890.
 17. McVea KL, Turner PD, Pepller DK. The role of breastfeeding in sudden infant death syndrome. *J Hum Lact* 2000;16:13–20.
 18. Mitchell EA, Taylor BJ, Ford RP, et al. Four modifiable and other major risk factors for cot death: The New Zealand study. *J Paediatr Child Health* 1992;28(Suppl 1):S3–S8.
 19. Mitchell EA, Esmail A, Jones DR, et al. Do differences in the prevalence of risk factors explain the higher mortality from sudden infant death syndrome in New Zealand compared with the UK? *N Z Med J* 1996;109:352–355.
 20. Mitchell EA, Tuohy PG, Brunt JM, et al. Risk factors for sudden infant death syndrome following the prevention campaign in New Zealand: A prospective study. *Pediatrics* 1997;100:835–840.
 21. Scragg R, Mitchell EA, Taylor BJ, et al. Bed sharing, smoking, and alcohol in the sudden infant death syndrome. New Zealand Cot Death Study Group. *BMJ* 1993;307:1312–1318.
 22. Scragg R, Stewart AW, Mitchell EA, et al. Public health policy on bed sharing and smoking in the sudden infant death syndrome. *N Z Med J* 1995;108:218–222.
 23. Scragg RK, Mitchell EA. Side sleeping position and bed sharing in the sudden infant death syndrome. *Ann Med* 1998;30:345–349.
 24. Mitchell EA, Scragg L, Clements M. Factors related to infants bed sharing. *N Z Med J* 1994;107:466–467.
 25. Horsley T, Clifford T, Barrowman N, et al. Benefits and harms associated with the practice of bed sharing: a systematic review. *Arch Pediatr Adolesc Med* 2007;161:237–245.
 26. McCoy RC, Hunt CE, Lesko SM, et al. Frequency of bed sharing and its relationship to breastfeeding. *J Dev Behav Pediatr* 2004;25:141–149.
 27. Lahr MB, Rosenberg KD, Lapidus JA. Maternal-infant bedsharing: Risk factors for bedsharing in a population-based survey of new mothers and implications for SIDS risk reduction. *Matern Child Health J* 2007;11:277–286.
 28. McKenna JJ, Mosko S, Dungy C, et al. Sleep and arousal patterns of co-sleeping human mother/infant pairs: A preliminary physiological study with implications for the study of sudden infant death syndrome (SIDS). *Am J Phys Anthropol* 1990;83:331–347.
 29. Mosko S, Richard C, McKenna J. Infant arousals during sleep and sudden infant death syndrome research. *Pediatrics* 1997;100:841–849.
 30. Baddock SA, Galland BC, Bolton DP, et al. Differences in infant and parent behaviors during routine bed sharing compared with cot sleeping in the home setting. *Pediatrics* 2006;117:1599–1607.
 31. Tappin D, Ecob R, Brooke H. Bedsharing, roomsharing, and sudden infant death syndrome in Scotland: A case-control study. *J Pediatr* 2005;147:32–37.
 32. Carpenter RG, Irgens LM, Blair PS, et al. Sudden unexplained infant death in 20 regions in Europe: Case control study. *Lancet* 2004;363:185–191.
 33. McKenna JJ, Mosko SS, Richard CA. Bedsharing promotes breastfeeding. *Pediatrics* 1997;100:214–219.
 34. Blair PS, Ball HL. The prevalence and characteristics associated with parent-infant bed-sharing in England. *Arch Dis Child* 2004;89:1106–1110.

ABM protocols expire five years from the date of publication. Evidence-based revisions are made within five years, or sooner if there are significant changes in the evidence.

Contributors

*Rosha McCoy, M.D., FABM

*James J. McKenna, Ph.D.

*Lawrence Gartner, M.D., FABM

Protocol Committee

Caroline J. Chantry, M.D., FABM,

Co-Chairperson

Cynthia R. Howard, M.D., FABM,

Co-Chairperson

Ruth A. Lawrence, M.D., FABM

Kathleen A. Marinelli, M.D., FABM,

Co-Chairperson

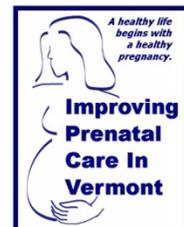
Nancy G. Powers, M.D., FABM

*Lead author

For reprint requests: abm@bfmed.org

Improving Prenatal Care in Vermont Best Practice Provider Toolkit

Gestational Diabetes



Gestational Diabetes Improvement Checklist

Between 1979 and 2004, class I and II obesity doubled and class III obesity tripled. Importantly, the prevalence of severe obesity, once a relatively rare condition, has increased dramatically among women of childbearing age (IOM, 2009). It is well established that women who are obese when they enter pregnancy tend to develop a more pronounced insulin resistance and are at greater risk for GDM than are non-obese women (Dahlgren, 2006; Chu et al., 2007). The need for careful assessment and effective treatment of diabetes in pregnant patients has been well stated and supported by research. However, current standards of care for diabetes screening and management are broad and not consistent across perinatal care providers. Screening recommendations include a 50 gram, one-hour glucose load screening test (GTT) with a cut-off varying between 130-140 mg % of serum glucose, resulting in sensitivity ranges of less than 80% to approximately 95%. Management options include variations in the timing of postprandial serum glucose checks and fetal testing options (ACOG, 2001). We condensed guidelines into an algorithm for the assessment of pregnant women and care of diabetic patients (see Gestational Diabetes Algorithm, this section.)

We are a little bit more flexible now in how we do the glucose testing. Our cut-offs now match those of the collaborative, so it's not just some number out in the sky. (midwife, urban OB practice)

Goals (developed in 2006 based on best practice guidelines, HP 2010, and/or planning committee consensus)

1. 90% of pregnant women at risk for pre-gestational diabetes (BMI \geq 30 or previous macrosomic infant) will have diabetic screening (e.g., one-hour 50-gram GTT) by the 16 week visit.
2. 95% of pregnant women will be screened for diabetes by the 28 week visit.
3. 99% of pregnant women who screen positive for gestational diabetes (2 or more elevated values on a three-hour GTT) at 16 or 28 weeks will receive an intervention (dietary, insulin) *within two weeks of the diagnosis*.
4. 99% of pregnant women who screen positive for gestational diabetes will have a normal glucose level (average fasting \leq 100 and/or average 2 hour postprandial glucose \leq 120 mg%) at 34 weeks.

Assessment

Studies support that a reduction of the cut-off of the one-hour 50-gram GTT from \geq 140 to \geq 130 mg% both improves the sensitivity but decreases the specificity of the screening test. Using a one-hour GTT cut-off of \geq 135 mg% misses approximately 7% of the gestational diabetic population. IPCV found that practices in Vermont differed in their thresholds for performing the 100-gram three-hour GTT ranging from \geq 130 to \geq 140 mg%. We believe that this cut-off range is too broad, and a standard of care for the state should exist in the absence of well-defined guidelines. Therefore, we worked with our participants towards a compromise and agreed upon the recommendation that a one-hour 50-gram GTT resulting in \geq 135 mg% indicates that a three-hour GTT should be performed.

- Risk assessment at 1st prenatal visit Women who are obese, older than 25 years of age, have a family history of diabetes, have a history of previous GDM, or are of certain ethnic groups (Hispanic, American Indian, Asian, or African-American) are at increased risk of developing GDM.
- Assess and screen at-risk patients with a one-hour 50-gram GTT. Negative effects on the fetus are possible in pregnant women with underlying insulin resistance or deficiency prior to pregnancy who's condition goes undetected until the 28th week
- Assess all non-diabetic patients for gestational diabetes between 24 and 28 weeks via a one-hour 50-gram GTT and follow up with a 100-gram three-hour GTT for those who screen positive (\geq 135 mg% on one-hour 50-gram GTT). There is little evidence about the value of earlier screening in the patient assessed to be at low risk (USPSTF 2008)



Intervention

- Use a one-hour GTT by 16 weeks for patients suspected to be at-risk for pre-gestational diabetes/glucose intolerance
- Document test results and treatment/therapy clearly, as applicable
- Consider referral to nutritionist
- Consider linking patient to other patients with like condition
- Women with impaired glucose tolerance or Type II Diabetes should be referred to a diabetes educator and to a practitioner experienced in caring for women with overt diabetes

Follow-up

- Ongoing fingerstick blood glucose evaluation in the diagnosed gestational diabetic to determine response to diet and/or insulin intervention with the goal of normalized blood glucose values. Therapeutic response will be reviewed at 34 weeks and documented as successful or not.

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Is there documentation of risk assessment for pre-gestational diabetes at first prenatal visit?
- If risk screening was positive, did this patient receive glucose screening by 16 weeks?
- Did this patient receive a one-hour 50-gram glucose screen GTT by 28 weeks?
- Did this patient screen positive at the 16 or 28 week evaluation?
- If yes, did this patient receive appropriate intervention?
- If yes, did this patient have normal glucose levels at 34 weeks?

Resources and References

- National Guideline Clearinghouse (<http://www.guidelines.gov/>)
 - International Diabetes Center. Gestational diabetes practice guidelines. Minneapolis (MN): International Diabetes Center; 2003. 2 p.
 - American Dietetic Association. Nutrition practice guidelines for gestational diabetes mellitus. Chicago (IL): American Dietetic Association; 2001 Sep.
- Nutrition practice guidelines for gestational diabetes from the American Dietetic Association available for purchase on CD at <http://www.eatright.org>
- Vermont Department of Health for links with resources such as nutritional counselors or diabetes educators
- March of Dimes Web site: <http://www.marchofdimes.com> (English) or <http://www.nacersano.org> (Spanish). To order a catalog or multiple copies of materials, call 1-800-367-6630.
 - Diabetes in Pregnancy (fact sheet) (also available in Spanish)
 - Diabetes in Pregnancy, 3rd Edition (nursing education)
 - High-Risk Antepartal Home Care (nursing education)
- American College of Obstetricians and Gynecologists (ACOG). Gestational Diabetes Practice Bulletin No. 30. September 2001. *Reaffirmed 2010*.
- American College of Obstetricians and Gynecologists (ACOG). Pre-Gestational Diabetes Mellitus Practice Bulletin No. 60. March 2005. *Reaffirmed 2010. Obstetrics & Gynecology*, 105, 675–85.
- American Diabetic Association. Gestational Diabetes Mellitus. (2003). *Diabetes Care*, 26(1), 103-105.
- Chu, S. Y., Callaghan, W. M., Kim, S.Y., Schmid, C. H., Lau, J., England, L. J., et al. (2007). Maternal obesity and risk of gestational diabetes mellitus. *Diabetes Care*, 30(8), 2070–2076.
- Dahlgren, J. Pregnancy and insulin resistance. (2006). *Metabolic Syndrome Related Disorders*, 4, 149–152. [PubMed:18370761].
- Irland, N. B. (2010). The Story of Gestational Diabetes. *Nursing for Women's Health*, 14, 147–155.
- Sermer, M., Naylor, C., Farine D., Kenshole A., Ritchie, J. W., Gare, D.J., Cohen, H. et al. The Toronto Tri-Hospital gestational diabetes project. *Diabetes Care*, 21, B33-42.
- Nelson, S., Matthews, P., & Poston, L. (2010). Maternal metabolism and obesity: modifiable determinants of pregnancy outcome. *Human Reproduction Update*, 16, 255-275.



Gestational Diabetes

Best Practice Recommendations
(Revised June 2011)

Assessment

a. Screening

- **Universal risk assessment at 1st prenatal visit**
 - High risk factors: marked obesity (BMI ≥ 30), over 25 years of age, prior history of gestational diabetes, glycosuria, or a strong family history of diabetes
- Early screening by 16 weeks (eg, with quad marker) for patients at risk of pre-gestational diabetes. These patients include:
 - Obesity – BMI ≥ 30
 - Age 40 or older
 - Prior history of gestational diabetes, impaired glucose tolerance, pre-diabetic condition, hypertension or other metabolic disorders
 - First degree relative with type II diabetes
- Universal screening at 24-28 weeks
 - 50 gram one hour glucose challenge test in fasting or non-fasting state
 - **Abnormal ≥ 135 mg%**
- If early screen is negative, repeat screen at 24-28 weeks as with all patients (Selective screening is discouraged as at least 90 % of the population will require screening)
- If early screen result is ≥ 135 mg%, perform a 3 hour 100-gram GTT. If these patients have a positive 3-hour GTT (two or more values greater than the cut-offs below), they should be treated as pre-gestational diabetics and are candidates for further evaluations not required for GDM (US structural survey, consideration for fetal echocardiography, etc.)
- Repeat third trimester screening (i.e. 32-34 weeks) if prior screening is negative and fetal macrosomia, polyhydramnios, or other fetal or maternal findings clinically suspicious for diabetes are identified during third trimester antepartum care

b. Antepartum Diagnosis

- GDM if:
 - **50 gm GTT ≥ 200**
 - ≥ 2 abnormal values using Coustan & Carpenter's standards bases on current ADA recommendations:

| | |
|----------------|--|
| FASTING | ≥ 95 |
| 1 HOUR | ≥ 180 |
| 2 HOUR | ≥ 155 |
| 3 HOUR | ≥ 140 [recommended as best practice for diagnosis instead of 140] |
- Impaired Glucose Tolerance
 - 1 abnormal value based on Coustan & Carpenter standards
 - There have been reports of adverse outcomes in pregnant patients with impaired glucose tolerance including risk of macrosomia and preeclampsia
- Management
 - Referral for nutrition counseling
 - Referral to Diabetes Educator
 - Monitoring: use at least one of the following
 - Manage as GDM (Home Glucose Monitoring, etc.)
 - Repeat 3 hour GTT at 32 weeks
 - Laboratory FBG and 1 or 2 hr postprandials every 1-2 weeks
- Suspect Overt Type II DM if in combination with other risk factors the patient:
 - Has elevated HgbA1c
 - Exercises on a regular basis



Intervention

a. Blood Sugar Monitoring

- Home Glucose Monitoring (HGM) for all women with GDM
 - Week 1: 4 x daily with fasting and 2 hour postprandial blood glucose monitoring
- **Normal: Fasting < 95**
2 hour < 120
If 1 hour post prandial, use <140
- Subsequent weeks
 - Diet controlled
 - If ALL values remain within the normal range, test 2-3x/week, 4x/daily.
 - If ANY value abnormal, increase monitoring to daily, 4x/daily.
 - Insulin controlled
 - 4x/daily testing
 - Exercise daily, at minimum 3-4times/week

b. Insulin Administration

- Start insulin if greater than 20% of blood glucose values are elevated, or more than 6 finger stick blood sugars (FSBS) in 1 week are abnormal after the patient has had time to adjust to the diet (after 1 week)
- Patients with abnormal fasting FSBS, or multiple, grossly abnormal FSBS are unlikely to respond to diet, and may be started on insulin more quickly
- If compliance is in question, then a glucometer with memory is ideal. Hemoglobin A₁C may be helpful if abnormal, but normal results should not be considered reassuring when FSBS are out of range

c. Weight gain

- Some women achieve blood sugar control through starvation
- Reassess diet if no weight gain over 3 weeks
- Consider starting insulin if no weight gain

d. Diet – IPCV's Top Nutritional Recommendations (Lisa Richardson, MS, RD, LDN)

- Kcal level between 1800 and 2500; ideal range is determined by monitoring weight gain, physical activity, blood glucose levels
- 40-45% carbohydrate (NOT 55%)
- Obese women (BMI \geq 30.0) can tolerate lower carb levels down to 35% to improve control
- No juice before 10 am (Tell clients none in the morning)
- Avoid processed sugars as well as simple sugars. This includes instant potatoes and rice
- No more than 2 servings of bread/cereal at breakfast
- **Small** meals and snacks are very important; eating 6-8 times a day with a **small** amount of carbohydrates each time (15-45g each time depending on calorie level)
- Bedtime snack is crucial
- Needs to see a registered dietitian or certified diabetic educator for individualized diet plan (medical nutrition therapy). Give patient a sample diet to follow until this appointment (to help decrease patient anxiety that she will be doing something to harm baby in the interim)
- Regular daily exercise (30 to 60 minutes)
- Assessment of diet - *ongoing*
 - Be sensitive to gestational age, e.g. nausea in 1st trimester
 - Referral to dietitian with recommendations for pt in chart
 - Should continue to gain wt, can be low wt gain do to avoidance of glucose
 - Record attitude or weight response resulting from diet changes



Policy and evidence-based guideline sources:

- Nutrition practice guidelines for gestational diabetes mellitus, American Dietetic Association; available for purchase on CD at www.eatright.org; summary of practice guideline is available at national guideline clearinghouse. Go to: <http://www.guidelines.gov/content.aspx?id=14888&search=nutritional+guidelines+gestational+diabetes>

e. The Birth Process

Antepartum Surveillance

- GDMA1 (diet controlled GDM): Twice weekly NST beginning at 36-40 weeks
 - If compliance with diet, etc., is in question, start at 36 weeks
 - If compliant and in good control, may start as late as 40 weeks
 - Non compliant with care - consider starting at 32 weeks
- GDMA2 (insulin treated GDM), OR prior stillbirth, OR becomes hypertensive: Twice weekly NST starting at 32-34 weeks
- Ultrasound for growth
 - At 30-32 weeks
 - Consider more frequent fetal ultrasound if fundal height cannot be assessed due to obesity or other reason or control is poor.
 - If abdominal circumference ($\geq 75^{\text{th}}$ %), maternal management should be more aggressive, i.e. diet control or insulin

Intrapartum/Delivery Management

- All patients need either a clinical or ultrasound EFW at 36-38 weeks

| Estimated Fetal Weight | Delivery Plan |
|---|---|
| >4500 grams | Option of primary C/S without a trial of labor is reasonable – must discuss and document discussion |
| 4000- 4500 grams (2003 Compendium Pg 30) | Clinical pelvimetry, obstetric history, and fetal weight should be used to counsel the patient regarding trial of labor |
| <4000 grams | Standard obstetric practice |

- For well controlled diabetic patients, delivery by 41 wks
- For poorly controlled or non-compliant patients, consideration should be given to amniocentesis and delivery even prior to 39 weeks (amniocentesis required for delivery in the clinically stable patient under 39 documented weeks of gestation)
- Patients undergoing induction of labor or C/S at < 39 weeks (including for macrocosmia and non-compliance) without other indications should have laboratory confirmation of fetal lung maturity (FLM) with amniocentesis

Intrapartum Blood Sugar Monitoring:

- FSBS q 2 hours, Q 1 hour if > 120 or < 80 mg%. Therapeutic Goal is 80-120 mg%.
- If labor is anticipated to exceed 6 hours duration, then maintenance intravenous fluids containing 5% dextrose should be initiated
- Any required bolus fluids should not contain glucose
- Insulin Drip for FSBS ≥ 120 – as per your institution's protocol



Follow-up

a. Postpartum Management

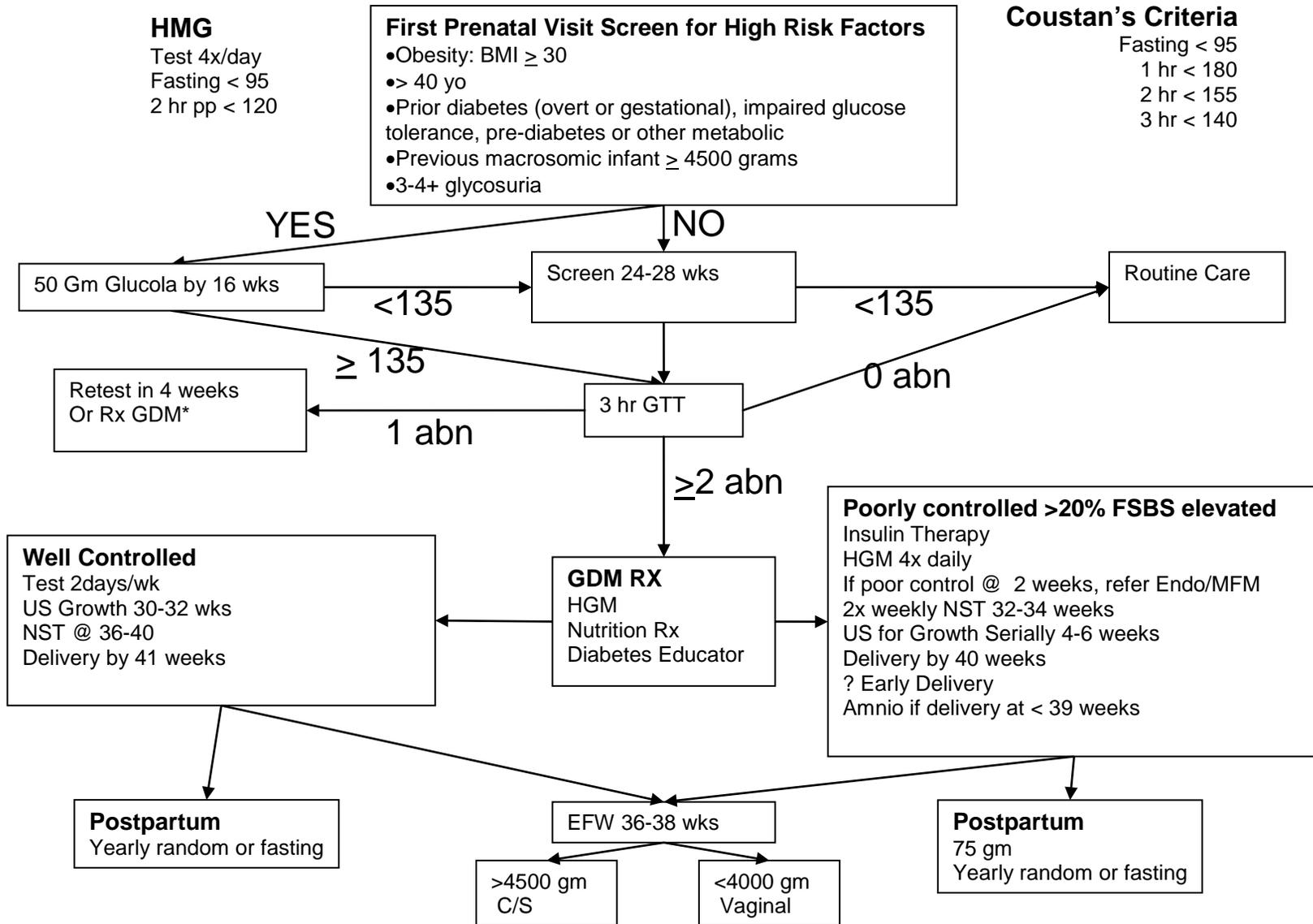
- All patients should be strongly encouraged to have a consultation with a diabetes educator regarding the long-term implications of a history of GDM during the postpartum
- All patients should be encouraged to exercise for life
- A single random blood sugar should be obtained on postpartum day 1 or 2; if this is <200 mg/dl, further blood sugar monitoring is not required during the postpartum period
- For patients with a mid trimester diagnosis of gestational diabetes, if consuming a regular diet, insulin therapy can generally be discontinued with delivery
- If GDM required insulin and was in good control
 - Postpartum follow-up and primary care provider informed of GDM
- If GDM required Insulin and was not in good control (i.e., values > 150), BMI > 30, any 3 hour test > 200
 - 75 gram glucola at 6 week visit
 - Annual random blood sugar
- Diagnosing Type II Diabetes
 - ✓ A random value greater than 200
 - ✓ A single abnormal value for a 75 gram glucose test

| | | |
|----------------|----------|------------|
| FASTING | ≥ | 126 |
| 1 HOUR | ≥ | 200 |
| 2 HOUR | ≥ | 200 |
- Diagnosing Impaired Glucose Tolerance: A single abnormal value on 75 gram glucose testing

| | | |
|--------------------|----------|----------------|
| FASTING | ≥ | 110 |
| 1 OR 2 HOUR | ≥ | 140-199 |
- **Women with impaired glucose tolerance or Type II Diabetes should be referred to a diabetes educator and to a practitioner experienced in caring for women with overt diabetes.**



Gestational Diabetes Algorithm



Created by Improving Prenatal Care in Vermont (Michele R. Lauria, MD, Dartmouth Hitchcock Medical Center OB/GYN. 2004). Vermont Child Health Improvement Program, Burlington, VT. Last reviewed 2011.



Gestation Diabetes PDSA Example

Practice Name:

Date:

Cycle #:

Goal: To improve the diagnosis and management of Gestational Diabetes.

Suggested measures:

- Percent of women having BMI on prenatal record
- Percent of at risk women undergoing early screening
- Adoption of Carpenter-Coustan Criteria
- Use of 135 as 50 gram cut off

How do you plan to achieve this goal:

- BMI chart in every exam room
 - Assistant calculate BMI at first visit
 - Check list for risk factors for early GDM screening
 - Show GDM education video to practice
-

The PDSA CYCLE

The PDSA cycle is a simple yet powerful approach to moving from plan to action designed to help you reach your improvement goal. PDSA cycles are small, rapid tests of change. They provide a format to develop, test, and implement a change. These small steps lead to significant improvement.

How will you implement your plan?

Plan: (what, why)

Improve the diagnosis of gestational diabetes so as to decrease diabetes related pregnancy complications and to help reduce the onset of adult type 2 diabetes

Do: (when, who, where)

LNA: weighs patient at first prenatal visit and calculates BMI

MD: screens patient for indicators for early screening

Practice manager changes to Caprenter Coustan and 135 cutoff.

Study: (intended results)

All patients at high risk are screened at 16 weeks

Correct diagnostic criteria are implemented

Act: (next step)

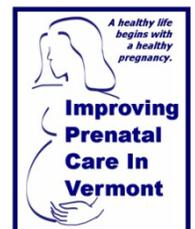
Modify prenatal records to incorporate risk factors and screening cut offs



Improving Prenatal Care in Vermont

Best Practice Provider Toolkit

Psychosocial/Behavioral



Psychosocial Improvement Checklist

(Substance Abuse, Intimate Partner Violence and Depression)

In 2008, 2.03% of pregnant Vermont resident women reported Intimate Partner Violence during their pregnancy (VDH, 2011). During pregnancy or during the postpartum period, 18% of Vermont resident women will experience moderate to significant depression. When women are not screened for depression, a diagnosis is delayed, which in turn leads to a significantly poorer social and medical prognosis (VDH, 2008). In 2007, 12.7% of pregnant women in Vermont consumed alcohol during the last three months of their pregnancy. This level was the highest among the 28 states available for comparison that year (VDH, 2010). Nationally, 4.0% of pregnant women, aged 15-44 years, reported that they used illicit drugs in the last month (SAMHSA, 2006). Screening for psychosocial/behavioral risk factors may help predict a woman's attentiveness to her pregnancy, her use of prenatal services, and the health status of her offspring (Lapp, 2000). Furthermore, women who were screened for psychosocial/behavioral issues once each trimester were half as likely to have a low birth weight or preterm baby as women who were not screened (Wilkinson, 1998).

Engaging in a discussion concerning these topics can be both difficult and uncomfortable for health care professionals and their clients. Unveiling a concern is complicated by the fact that many providers are unsure of the next steps and the availability of referral resources.

We were reminded by our experts that the three psychosocial topic areas of depression, intimate partner violence, and substance abuse often co-exist and therefore should not be considered in isolation. As a result of a need voiced by the participating teams and through expert advice, IPCV developed a *Psychosocial Combined Clinical Tool* to assist in identifying patients at risk. It begins with a ten-question provider screening tool meant to be used *once per trimester*. If a risk is identified through screening in any one of the three areas, it is imperative that a more in-depth assessment occurs. Tools for this purpose for each topic area follow the ten-question screening tool. The *Psychosocial Combined Clinical Tool* can be found in this section.

Each of the initial 10 questions have been further developed and refined as part of the Health Resources and Services Administration (HRSA) Perinatal and Patient Safety Health Disparities Pilot Collaborative. Although each of these questions has been previously validated as part of another tool, the combined tool has yet to be validated.

Goals (developed in 2006 based on best practice guidelines, HP 2010, and/or planning committee consensus)

1. 100% of pregnant women will have a complete psychosocial assessment (must include substance abuse, intimate partner violence and depression) done in the first, second, and third trimesters, as well as at the post-partum visit.
2. 100% of women who are identified as 'at risk' for substance abuse, intimate partner violence, and/or depression will be referred for treatment/counseling.
3. 75% of pregnant women will receive treatment/counseling per referral for substance abuse, intimate partner violence, and/or depression.

Refer to Substance Abuse, Intimate Partner Violence, and Depression folders to find individual checklists.

Resources

- Vermont Network Against Domestic and Sexual Violence <http://www.vtnetwork.org>; Vermont Domestic Violence Hotline: 800-228-7395.
- Postpartum Depression on the Web: <http://www.nlm.nih.gov/medlineplus>; <http://www.depressionafterdelivery.com>; <http://www.postpartumdads.org>
- Postpartum Support International (PSI): (800) 944-4773 (English and Spanish)
- Vermont Department of Health for links with resources such as a list of mental health providers and services from district offices



- Patient directed materials, such as a Wallet card for the signs and symptoms of postpartum depression (see insert).
- Life After Childbirth, Vermont Department of Health, Department of Children and Family Services.
- March of Dimes Web site: <https://www.marchofdimes.com> (English) or <http://www.nacersano.org> (Spanish).

References

- Beck, C. T., Records, K., & Rice, M. (2006). Further development of the Predictors of Postpartum Depression Inventory—Revised. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 35(6), 735–745.
- Vermont Department of Health (VDH). <http://healthvermont.gov/research/PRAMS/documents/2011-03-25DomesticAbuse-Part3.pdf>
- Vermont Department of Health (VDH). <http://healthvermont.gov/research/PRAMS/document/20081024.pdf>
- Vermont Department of Health (VDH). <http://healthvermont.gov/research/PRAMS/documents/2010-07-02AlcoholStateComparison.pdf>
- Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA): 2006 Survey on Drug Use and Health: National Findings.
- Lapp, T. (2000) Practice Guidelines: ACOG addresses psychosocial screening in pregnant women. *American Family Physician*. Assessed May 27, 2011. <http://www.aafp.org/afp/20001215/practice.html>
- Wilkinson, D.S., Korenbrot, C.C., & Greene, J. (1998). A performance indicator of psychosocial services in enhanced prenatal care of Medicaid-eligible women. *Maternal Child Health Journal*, 13, 131-143



PSYCHOSOCIAL COMBINED CLINICAL TOOL
PSYCHOSOCIAL/BEHAVIORAL SCREENING TOOL
Provider Interview Guide for Each Trimester

1. Do you have any problems that prevent you from keeping your health care appointments?

2. How many times have you moved in the past 12 months? 0, 1, 2, 3, >3

3. Do you feel unsafe where you live? (Domestic Violence interview guide, SW)

4. Do you or any members of your household go to bed hungry? (SW)

5. In the past 2 months, have you used any form of tobacco? (Substance Abuse self assessment)

6. In the past 2 months, have you used drugs or alcohol, including beer, wine, mixed drinks, or marijuana? (Inform patient of urine screen, Substance Abuse self assessment, 4Ps)

7. In the past year, has anyone hit you or tried to hurt you? (Domestic Violence interview guide)

8. How do you rate your current stress level – low or high? (PDPI self assessment, Domestic Violence interview guide)

9. If you could change the timing of this pregnancy, would you want it earlier, later, not at all, or no change? (PDPI self assessment, Domestic Violence interview guide, SW)

10. Before this pregnancy, have you ever been depressed? Describe how you felt? How long did it last? What brought you out of it? (PDPI self assessment)

Adapted with permission from Florida's Healthy Start Prenatal Risk Screening Instrument. Florida Department of Health. DH 3134. September 1997. Reprinted by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, Vermont. 2004. Last reviewed 2011.



4Ps

Have you ever used drugs or alcohol during this **Pregnancy**? Yes No

Have you had a problem with drugs or alcohol in the **Past**? Yes No

Does your **Partner** have a problem with drugs or alcohol? Yes No

Do you consider one of your **Parents** to be an addict or alcoholic? Yes No

This screening device is often used as a way to begin a discussion about drugs or alcohol use. Any woman who answers yes to one or more questions should be referred for further assistance.

SOURCE:

Ewing H., Medical Director,
Born Free Project, Contra Costa County
111 Allen Street
Martinez, CA 94553,
(510) 646-1165



Postpartum Depression Predictors Inventory (PDPI) – self assessment

During Pregnancy

Marital Status

- | | | |
|------------------------|--------------------------|--|
| 1. Single | <input type="checkbox"/> | |
| 2. Married/co-habiting | <input type="checkbox"/> | |
| 3. Separated | <input type="checkbox"/> | |
| 4. Divorced | <input type="checkbox"/> | |
| 5. Widowed | <input type="checkbox"/> | |
| 6. Partnered | <input type="checkbox"/> | |

Check One

Socioeconomic Status

- | | | |
|-----------|--------------------------|--|
| 1. Low | <input type="checkbox"/> | |
| 2. Middle | <input type="checkbox"/> | |
| 3. High | <input type="checkbox"/> | |

Self-Esteem

- | | Yes | No |
|---|--------------------------|--------------------------|
| 1. Do you feel good about yourself as a person? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Do you feel worthwhile? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Do you feel you have a number of good qualities as a person? | <input type="checkbox"/> | <input type="checkbox"/> |

Prenatal Depression

- | | | |
|---|--------------------------|--------------------------|
| 1. Have you felt depressed during your pregnancy? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. If yes, when and how long have you been feeling this way? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. If yes, how mild or severe would you consider your depression? | <input type="checkbox"/> | <input type="checkbox"/> |

Prenatal Anxiety

- | | | |
|---|--------------------------|--------------------------|
| 1. Have you been feeling anxious during your pregnancy? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. If yes, how long have you been feeling this way? | <input type="checkbox"/> | <input type="checkbox"/> |

Unplanned/Unwanted Pregnancy

- | | | |
|-------------------------------|--------------------------|--------------------------|
| 1. Was the pregnancy planned? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the pregnancy unwanted? | <input type="checkbox"/> | <input type="checkbox"/> |

History of Previous Depression

- | | | |
|---|--------------------------|--------------------------|
| 1. Before this pregnancy, have you ever been depressed? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. If yes, when did you experience this depression? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. If yes, have you been under a physician's care for this past depression? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. If yes, did the physician prescribe any medication for your depression? | <input type="checkbox"/> | <input type="checkbox"/> |

Social Support

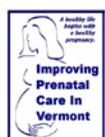
- | | | |
|--|--------------------------|--------------------------|
| 1. Do you feel you receive adequate emotional support from your partner? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Do you feel you receive adequate day-to-day task support from your partner?(e.g., help with household chores or babysitting)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Do you feel you can rely on your partner when you need help? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Do you feel you can confide in your partner? (repeat same questions for family and again for friends) | <input type="checkbox"/> | <input type="checkbox"/> |

Marital Satisfaction

- | | | |
|--|--------------------------|--------------------------|
| 1. Are you satisfied with your marriage (or living arrangement)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Are you currently experiencing any marital problems? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are things going well between you and your partner? | <input type="checkbox"/> | <input type="checkbox"/> |

Life Stress

- | | | |
|--|--------------------------|--------------------------|
| 1. Are you currently experiencing any stressful events in your life such as: | | |
| 2. Financial problems | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Marital problems | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Death in the family | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Serious illness in the family | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Moving | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Unemployment | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Job change | <input type="checkbox"/> | <input type="checkbox"/> |



The PDPI-Revised (PDPI-R) can be used as a self-report questionnaire, but should always be scored and followed up with a discussion with a clinician. The interview format provides a woman with an opportunity to discuss her experiences and any problems she may be experiencing regarding these risk factors. The PDPI-R identifies targeted risk factors for which nursing interventions can be planned to address each specific woman's problems. **When a pregnant woman scores above the recommended cutoff score of 7.5 on the PDPI-R, she should be followed closely during the postpartum period. Periodic telephone calls should be considered to assess whether she is starting to show signs of postpartum depression. A cutoff score of 10.5 is recommended when using the Postpartum Depression Predictors Inventory-Revised during pregnancy**

| | |
|---|--------------------------------------|
| Referral made: <input type="checkbox"/> Yes <input type="checkbox"/> No To: _____ _____ _____ | Rx: _____ _____ _____ _____ |
| Progression: _____ _____ _____ _____ _____ | |

To source more information regarding Prenatal PDPI-R, Postpartum PDPR-R and best practice on use and scoring of this screening tool refer to:

Beck, C. T., Records, K., & Rice, M. (2006). Further development of the Predictors of Postpartum Depression Inventory—Revised. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 35(6), 735–745.



PSYCHOSOCIAL COMBINED CLINICAL TOOL

DOMESTIC VIOLENCE ASSESSMENT

Provider Interview Guide
(Screening, Assessment, Documentation, Referral)

- | | | |
|---|-----|----|
| <p>1. WITHIN THE LAST YEAR, have you been hit, slapped, kicked, or otherwise physically hurt by someone?</p> <p>If YES, by whom? _____</p> <p>Total number of times _____</p> | YES | NO |
| <p>2. SINCE YOU'VE BEEN PREGNANT, have you been hit, slapped, kicked, or otherwise physically hurt by someone?</p> <p>If YES, by whom? _____</p> <p>Total number of times _____</p> | YES | NO |
| <p>3. SINCE YOU'VE BEEN PREGNANT, has anyone ever put you down, called you names, made you feel bad about yourself?</p> <p>If YES, by whom? _____</p> <p>Total number of times _____</p> | YES | NO |
| <p>4. SINCE YOU'VE BEEN PREGNANT, has anyone threatened to hurt you or someone close to you?</p> <p>If YES, by whom? _____</p> <p>Total number of times _____</p> | YES | NO |
| <p>5. WITHIN THE LAST YEAR, has anyone forced you to have sexual activities?</p> <p>If YES, by whom? _____</p> <p>Total number of times _____</p> | YES | NO |
| <p>6. Does this impact your feelings towards this pregnancy?</p> | YES | NO |

Source: VT Network Against Domestic and Sexual Assault, 2003, 1-802-223-1302
Adapted from a tool developed by the Nursing Research Consortium on Violence and Abuse (NRCVA).
Readers are encouraged to reproduce and use this assessment tool.



When was the last time you used drugs, if ever?

- Never used drugs
- Within the last 2 weeks
- Within the last month
- Within the last 3 months
- Within the last 6 months
- Within the last year
- Over 1 year ago

Before you were pregnant, how many times (occasions), on average, did you use drugs each week? ____
each month? ____

In the past week, how many times did you use drugs? ____ (at intake)

Have you had any treatment for drug use?

- Yes: Where? _____
When? _____
- No

Drugs Used (check all that apply)

| Drug | Within 2 weeks | Within 1 month | Within 6 months | Within 1 year | Over 1 year ago |
|--|----------------|----------------|-----------------|---------------|-----------------|
| Marijuana/THC | | | | | |
| Crack/Cocaine | | | | | |
| Cocaine (IV) | | | | | |
| LSD/Acid | | | | | |
| Heroin (IV) | | | | | |
| Heroin (other) | | | | | |
| Painkillers (Tylenol/Codeine, Oxycodone, Percocet) | | | | | |
| Barbiturates and other tranquilizers | | | | | |
| Methamphetamine | | | | | |
| Other tranquilizers | | | | | |
| Inhalants | | | | | |
| Other (specify): _____ _____ | | | | | |

SOURCE: <http://www.tgorski.com>

| | |
|--|---|
| <p>Urine Screen Done?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Results</p> <p><input type="checkbox"/> Negative <input type="checkbox"/> Positive, for:</p> <p>_____</p> <p>_____</p> <p>_____</p> | <p>Referral to treatment? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Results</p> <p><input type="checkbox"/> Appointment not kept <input type="checkbox"/> Appointment kept</p> <p><input type="checkbox"/> Patient abstaining <input type="checkbox"/> Patient cut back – reinforce</p> <p><input type="checkbox"/> No change</p> <p>Rx/Notes _____</p> <p>_____</p> <p>_____</p> |
|--|---|



Brief Stress Assessment Form

We want to help you and your developing baby to be healthy during your pregnancy and for this to be a time for you to work on past and current problems that may affect your health. Psychological and social problems are common experiences and our Center wants to help you overcome any problems that may interfere with having a healthy pregnancy. Please complete the 10 questions below. Your answers will be kept confidential, like the rest of your medical information.

Please check the box that describes **you**. Over the ***last two weeks***, how often have you been bothered by any of the following problems?

| | Not At All (0) | Several Days (1) | More Than Half The Days (2) | Nearly Every Day (3) |
|---|-------------------|---------------------|--------------------------------|-------------------------|
| 1. Feeling down, depressed or hopeless? | | | | |
| 2. Little interest or pleasure in doing things? | | | | |

Please answer **yes** or **no** to the following questions:

3. Has either of your **parents** had a problem with alcohol or drugs? Yes ___ No ___
4. Does your **partner** have a problem with alcohol or drugs? Yes ___ No ___
5. Have you had a **problem** with alcohol or drugs in the past? Yes ___ No ___
6. Have you used any drugs or alcohol during this **pregnancy**? Yes ___ No ___
7. Within the last year, have you been hit, slapped, kicked, slapped, shoved or strangled or forced to have sex or otherwise physically hurt by someone? No ___ Yes ___ If **yes, by whom?**

8. Since you've been pregnant, has anyone put you down, called you names, made you feel bad about yourself? No ___ Yes ___ **If yes, by whom?** _____
9. Over the past year, have you moved two or more times, had problems keeping appointments, felt unsafe where you live, or experienced a high stress level? Yes _____ No _____
10. Has anything happened to make you worry about yourself or your baby? Yes _____ No _____

Someone from our staff would be happy to discuss any of these problems you may be having.

Created by the Health Resources and Services Administration (HRSA) and the National Initiative for Children's Healthcare Quality (NICHQ) for the Perinatal and Patient Safety Health Disparities Pilot Collaborative, 2005; last reviewed 2011. Bibliography available upon request: Jennifer.Ustianov@uvm.edu



Brief Stress Screening Form (postpartum)

We want to help you and your baby to be healthy and for this to be a time for you to work on past and current problems that may affect your health. Psychological and social problems are common experiences and our Center wants to help you overcome any problems that may interfere with having a healthy pregnancy. Please complete the 10 questions below. Your answers will be kept confidential, like the rest of your medical information.

Please check the box that describes **you**. Over the ***last two weeks***, how often have you been bothered by any of the following problems?

| | Not At All (0) | Several Days (1) | More Than Half The Days (2) | Nearly Every Day (3) |
|---|-------------------|---------------------|--------------------------------|-------------------------|
| 1. Feeling down, depressed or hopeless? | | | | |
| 2. Little interest or pleasure in doing things? | | | | |

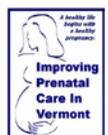
Please answer **yes** or **no** to the following questions:

- 3. Has either of your **parents** had a problem with alcohol or drugs? Yes ___ No ___
- 4. Does your **partner** have a problem with alcohol or drugs? Yes ___ No ___
- 5. Have you had a **problem** with alcohol or drugs in the past? Yes ___ No ___
- 6. Have you used any drugs or alcohol since you **delivered**? Yes ___ No ___
- 7. Within the last year, have you been hit, slapped, kicked, slapped, shoved or strangled or forced to have sex or otherwise physically hurt by someone? No ___ Yes ___ If **yes, by whom?**

- 8. Since you delivered, has anyone put you down, called you names, and/or you feel bad about yourself? No ___ Yes ___ If **yes, by whom?** _____
- 9. Over the past year, have you moved two or more times, had problems keeping appointments, felt unsafe where you live, or experienced a high stress level? Yes _____ No _____
- 10. Has anything happened to make you worry about yourself or your baby? Yes _____ No _____

Someone from our staff would be happy to discuss any of these problems you may be having.

Created by the Health Resources and Services Administration (HRSA) and the National Initiative for Children's Healthcare Quality (NICHQ) for the Perinatal and Patient Safety Health Disparities Pilot Collaborative, 2005; last reviewed 2011. Bibliography available upon request: Jennifer.Ustianov@uvm.edu



Brief Stress Screening Form-Scoring

Depression:

Over the ***last two weeks***, how often have you been bothered by any of the following problems?

| | Not At All (0) | Several Days (1) | More Than Half The Days (2) | Nearly Every Day (3) |
|---|-------------------|---------------------|--------------------------------|-------------------------|
| 1. Feeling down, depressed or hopeless? | | | | |
| 2. Little interest or pleasure in doing things? | | | | |

A total score of 3 or more, complete the PHQ-9 and plan of care.

Substance Use:

If woman is known to be using drugs or alcohol go directly to comprehensive screen

3. Has either of your **parents** had a problem with alcohol or drugs? Yes ___ No ___
4. Does your **partner** have a problem with alcohol or drugs? Yes ___ No ___
5. Have you had a **problem** with alcohol or drugs in the past? Yes ___ No ___
6. Have you used any drugs or alcohol during this **pregnancy**? Yes ___ No ___

If woman answers “yes” to questions 4-6, she is using or is at significant risk of using alcohol or drugs. If she answers “yes” to questions 5 or 6, proceed to CAGE screen, followed by comprehensive assessment, and plan of care.

Intimate Partner Violence:

Ask the following questions only if you are alone with the woman in a secure area.

7. Within the last year, have you been hit, slapped, kicked, shoved, strangled, or forced to have sex or otherwise hurt by someone? No ___ Yes ___ If **yes, by whom?** _____
8. Since you've been pregnant, has anyone put you down, called you names, or made you feel bad about yourself? No ___ Yes ___ If **yes, by whom?** _____

If woman answers “yes” to questions 7 or 8, proceed to comprehensive assessment and plan of care.

Stress:

9. Over the past year, have you moved two or more times, had problems keeping appointments, felt unsafe where you live, or experienced a high stress level?
Yes ___ No ___
10. Has anything happened to make you worry about yourself or your baby?
Yes ___ No ___

If woman answers “yes” to either question, follow up with a comprehensive interview and plan of care.

Created by the Health Resources and Services Administration (HRSA) and the National Initiative for Children’s Healthcare Quality (NICHQ) for the Perinatal and Patient Safety Health Disparities Pilot Collaborative, 2005; last reviewed 2011. Bibliography available upon request: Jennifer.Ustianov@uvm.edu



Brief Stress Screening Form-Scoring (postpartum)

Depression:

Over the **last two weeks**, how often have you been bothered by any of the following problems?

| | Not At All (0) | Several Days (1) | More Than Half The Days (2) | Nearly Every Day (3) |
|---|-------------------|---------------------|--------------------------------|-------------------------|
| 1. Feeling down, depressed or hopeless? | | | | |
| 2. Little interest or pleasure in doing things? | | | | |

A total score of 3 or more, complete the PHQ-9 and plan of care.

Substance Use:

If woman is known to be using drugs or alcohol go directly to comprehensive screen

3. Has either of your **parents** had a problem with alcohol or drugs? Yes ___ No ___
4. Does your **partner** have a problem with alcohol or drugs? Yes ___ No ___
5. Have you had a **problem** with alcohol or drugs in the past? Yes ___ No ___
6. Have you used any drugs or alcohol since you **delivered**? Yes ___ No ___

If woman answers “yes” to questions 4-6, she is using or is at significant risk of using alcohol or drugs. If she answers “yes” to questions 5 or 6, proceed to CAGE screen, followed by comprehensive assessment, and plan of care.

Intimate Partner Violence:

Ask the following questions only if you are alone with the woman in a secure area.

7. Within the last year, have you been hit, slapped, kicked, shoved, strangled, or forced to have sex or otherwise hurt by someone? No ___ Yes ___ If **yes, by whom?** _____
8. Since you delivered, has anyone put you down, called you names, or made you feel bad about yourself? No ___ Yes ___ If **yes, by whom?** _____

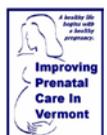
If woman answers “yes” to questions 7 or 8, proceed to comprehensive assessment and plan of care.

Stress:

9. Over the past year, have you moved two or more times, had problems keeping appointments, felt unsafe where you live, or experienced a high stress level? Yes ___ No ___
10. Has anything happened to make you worry about yourself or your baby? Yes ___ No ___

If woman answers “yes” to either question, follow up with a comprehensive interview and plan of care.

Created by the Health Resources and Services Administration (HRSA) and the National Initiative for Children’s Healthcare Quality (NICHQ) for the Perinatal and Patient Safety Health Disparities Pilot Collaborative, 2005; last reviewed 2011. Bibliography available upon request: Jennifer.Ustianov@uvm.edu



Improving Prenatal Care in Vermont Best Practice Provider Toolkit

Substance Abuse



Substance Abuse Improvement Checklist

Medical professionals must adopt the practice of universal screening, as substance abuse knows no boundaries of economic or social status. Substance Abuse is a disease which can be exacerbated by an underlying, co-existing health issue. Furthermore, alcohol and drug abuse behavior may lead to interactions with the criminal justice system, causing trauma, family disruption and/or loss of children. Special attention and care should be taken to identify and offer resources, both for behavior and the overwhelming stress these circumstances cause. When screening pregnant woman for a history and/or current abuse of substances, it is important to remember that the prenatal care provider is in a key position of support and encouragement. It is essential to organize your care in a way that will provide patient guidance to resources for treatment and aid in optimizing outcomes for the mother and her newborn infant.

Sometimes, we were afraid to get a “yes” answer – we didn’t know what to do with that information. So we ended up not asking, and that has an impact on the patient’s care. Now we are more organized to direct our patients to resources. So now, we know what to do. (OB/GYN, academic health center)

Assessment

- Conduct universal screening at first prenatal visit.
- Assess substance abuse by partner(s).
- Assess patient’s support and resources structure which might encourage behavioral change.

Intervene

- If positive, use in-depth self-assessment questionnaire (can use “*Psychosocial Combined Clinical Tool – Alcohol & Drug Assessment Questionnaire*” located in the “Psychosocial/Behavioral” section of the Toolkit)
- If positive for opioid use, refer to *Treatment of Opioid Dependence in Pregnancy: Vermont Guidelines* (See resource section)
- Refer to drug/alcohol/tobacco cessation treatment program
- Consider using Motivational Interviewing techniques and/or setting self-management goals to achieve small steps of behavioral change
- Provide a “no judgment” environment, provide information and emphasizing behavior change as appropriate
- Discuss the unknown and known impact of drinking alcohol while pregnant
- Contact your district Vermont Department of Health, MCH Coordinator, for referral to treatment providers, and links to local community support and resources for pregnant women
- If treatment is managed outside your office, consider connecting with the treatment provider at the beginning and at least once during prenatal and postpartum care to support care coordination, while encouraging treatment success which improve maternal and newborn outcomes.
- Encourage staff to increase their level of education and understanding of options for breastfeeding for drug dependent women (See Academy of Breastfeeding Medicine, Protocol 21 <http://www.bfmed.org/Resources/Protocols.aspx>)
- Encourage all women who intend to breastfeed, or are currently breastfeeding, to avoid the use of alcoholic beverages

Follow up

- Re-screen during the second and third trimester. Don’t assume that there isn’t a need for re-screening based on appearances or previous screens
- Confirm with patient that she is receiving treatment and counseling
- Support your patient by inquiring about her referral, success and treatment, and counseling progress



Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring, being documented regularly (i.e. quarterly), review patient charts within the first and third trimesters for the following indicators:

- Was this patient screened for substance abuse at the first prenatal visit?
- If not previously identified, is there documentation of at-risk screening or assessment of substance abuse in the second and third trimesters?
- If 'at-risk', did patient receive in-house counseling, and/or a referral for treatment or counseling?
- Is there documentation that the patient received in-house counseling, and/or treatment/counseling as referred?
- Is there documentation of progress and reaction to treatment?
- Consider providing educational opportunities, by connecting patients with community experts, enabling staff to examine attitudes and bias, while learning and seeking an understanding of the disease of addiction, its impact on the patient and those around them, and the difference between dependency and addiction. This education could provide a path to better understand the important role medical professionals and office staff play in supporting the patient and her family before, during, and after the pregnancy.

Resources

- American College of Obstetricians and Gynecologists. (2006). Drinking and Reproductive Health: A Fetal Alcohol Spectrum Disorders Prevention Tool Kit. www.acog.org/departments/healthissues/FASDToolkit.pdf Accessed April 27, 2011
- Change Plan Worksheet. www.hhs.gov/opa/familylife/tech_assistance/.../ami-materials.pdf Accessed May 12, 2011.
- Improving Prenatal Care in Vermont: Providers Toolkit: Tobacco Cessation <https://www.med.uvm.edu/VCHIP/TB2+RL+3I.asp?ContentItemID=10136&SiteAreaID=639>
- Morrison, S. (2007). Self Management Support: Helping Client Set Goals to Improve their Health. <http://www.nhchc.org/SelfManagementSupport052907.pdf> Accessed May 12, 2011.
- National Organization on Fetal Alcohol Syndrome. <http://www.nofas.org>
- Path to Parenthood booklet. A comprehensive patient-focused prenatal and postpartum resources. <http://www.vnavt.com/Path-to-Parenthood0.pdf>
- Treatment of Opioid Dependency in Pregnancy Vermont Guidelines https://www.med.uvm.edu/VCHIP/downloads/VCHIP_1%20NEONATAL_GUIDELINES_FINAL.pdf

References

- American College of Obstetricians and Gynecologists. (2006). Drinking and Reproductive Health: A Fetal Alcohol Spectrum Disorders Prevention Tool Kit. www.acog.org/departments/healthissues/FASDToolkit.pdf Accessed April 27, 2011.
- Bowen, A., & Tumback, L. (2011). Alcohol and breastfeeding: Dispelling the Myths and Promoting the Evidence. *Nursing for Women's Health*, 14(6), 454-461.
- Buja, A., Guarnieri, E., Forza, G., Tognazzo, F., Sandonà, P., & Zampieron, A. (2011) Socio-demographic factors and processes associated with stages of change for smoking cessation in pregnant versus non-pregnant women. *BioMedCentral Women's Health*, 11(3). <http://www.biomedcentral.com/1472-6874/11/3> Accessed May 12, 2011.
- Chang, G., McNamara, T., Wilkins-Haug, L., & Orav, E.J. (2007). Stages of change and prenatal alcohol use. *Journal of Substance Abuse and Treatment*, 32(1), 105-109.
- Johnson, R.E., Jones, H.E., Fischer, G. (2003). Use of buprenorphine: patient management and effects on the neonate. *Drug and Alcohol Dependence*, 70, S87-S101.
- Ripley-Moffitt, C.E. (2008). Safe babies: a qualitative analysis of the determinants of postpartum smoke-free and relapse states. *Nicotine and Tobacco Research*, 10(8), 1355-1364.
- Stotts, A. L., DeLaune, K. A., Schmitz, J. M. Grabowski, J. (2004). Impact of a motivational intervention on mechanisms of change in low-income pregnant smokers. *Addictive Behaviors*, 29(8), 1649-1657.
- Thajam, D., Atkinson, D.E., Sibley, C.P., Lavender, T. (2010). Is Neonatal Abstinence Syndrome Related to the Amount of Opiate Used? *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 39(5), 503-509.



Talking Points

Alcohol Consumption Preconception, During Pregnancy and Between Pregnancies

- There is NO amount of alcohol that is known to be safe during pregnancy, and therefore alcohol should be avoided during pregnancy.
- Prenatal exposure to alcohol can interfere with the healthy development of the baby.
- Depending on the amount, timing, and pattern of use, alcohol consumption during pregnancy can lead to [Fetal Alcohol Syndrome](#) or other developmental disorders.
- If you consumed alcohol before you knew you were pregnant, stop drinking now.
- You should continue to avoid alcohol during breastfeeding.
- Exposure of alcohol to an infant poses harmful risks, and alcohol does reach the baby during breastfeeding.

Talking Points

Alcohol Consumption during Breastfeeding

- Alcohol does not improve either the quality or the quantity of breastmilk
- Alcohol may hinder the let-down reflex.
- There is no benefit to the sleep of either the baby or the mother when the mother drinks alcohol
- Drinking alcohol during breastfeeding may have long-term negative effects on the developing child.
- The amount of alcohol that the mother drinks may be more than she thinks due to variation in alcohol content of drinks, even so-called “low-alcohol” beverages.
- The mother can pump and store breastmilk if she knows she might drink alcohol, pump again after at least 2 hours have passed since drinking alcohol. She should discard milk pumped within 1 hours of drinking alcohol. *Bowen (2011)*



SIGNS AND SYMPTOMS OF SUBSTANCE ABUSE ACOG (2006)

Signs and Symptoms - Physical Findings

- Alcohol on the breath
- Scars, injuries
- Hypertension
- Tachycardia or bradycardia
- Tremors
- Slurred speech
- Self-neglect or poor hygiene
- Liver or renal disease
- Runny nose
- Chronic cough
- Cheilosis
- Nervous mannerisms (e.g. frequently licking lips, jitters, foot tapping)
- Pinpoint or dilated pupils
- Reproductive dysfunction (hypogonadism, irregular menses, miscarriage, infertility, fetal alcohol syndrome)
- Low weight gain
- Poor nutritional status
- Physical abuse
- Track marks and other evidence of intravenous drug use
- STD's
- Hx of low birth weight or preterm delivery

Signs and Symptoms - Psychological Problems

- Memory loss
- Depression
- Anxiety
- Panic
- Paranoia
- Unexplained mood swings
- Personality changes
- Intellectual changes
- Sexual promiscuity
- Dishonesty
- Unreliability

American College of Obstetricians and Gynecologists. (2006). Drinking and Reproductive Health: A Fetal Alcohol Spectrum Disorders Prevention Tool Kit. www.acog.org/departments/healthIssues/FASDToolkit.pdf
Accessed April 27, 2011. Created by Improving Prenatal Care in Vermont
(Peter Cherouny, MD, Fletcher Allen Health Care, Burlington, Vermont. 2004).
Vermont Child Health Improvement Program, Burlington, VT; last reviewed 2011.



FEELINGS TRACKING VOCABULARY

Each person describes how they are feeling in different ways, using various words. This list may help guide you in discovering what your patient is telling you and the support and resource they may need.

HAPPY

| | | | | | | |
|--------------|------------|-----------|-----------|-----------|-------------|------------|
| Excited | Ecstatic | Energized | Thrilled | Elated | Terrific | Fortunate |
| Enthusiastic | Uplifted | Exuberant | Jubilant | Loved | Marvelous | Justified |
| Joyful | Grateful | Accepted | Resolved | Proud | Appreciated | Amused |
| Valued | Cheerful | Confident | Delighted | Gratified | Relieved | Respected |
| Alive | Encouraged | Assured | Admired | Fulfilled | Optimistic | Determined |
| Tranquil | Glad | Peaceful | Pleased | Content | Good | Hopeful |
| Flattered | Relaxed | Satisfied | | | | |

WORRIED

| | | | | | | |
|-----------|------------|-----------|-----------|--------------|------------|------------|
| Fearful | Terrified | Appalled | Panicky | Intimidated | Vulnerable | Dread |
| Afraid | Desperate | Horrified | Tormented | Shocked | Impatient | Unsure |
| Frantic | Petrified | Tense | Insecure | Alarmed | Guarded | Threatened |
| Skeptical | Shaken | Stunned | Uneasy | Apprehensive | Swamped | Awed |
| Defensive | Suspicious | Startled | Reluctant | Shy | Timid | Perplexed |
| Nervous | Concerned | Doubtful | | | | |

CONFUSED

| | | | | | |
|-------------|---------------|---------------|------------|-----------|---------------|
| Bewildered | Immobilized | Baffled | Trapped | Stagnant | Flustered |
| Constricted | Directionless | Foggy | Ambivalent | Perplexed | Doubt |
| Awkward | Hesitant | Troubled | Puzzled | Torn | Disorganized |
| Surprised | Distracted | Unsettled | Bothered | Uncertain | Misunderstood |
| Unsure | Undecided | Uncomfortable | | | |

SAD

| | | | | | | |
|-------------|------------|---------------|--------------|---------------|-----------|-----------|
| Devastated | Exhausted | Empty | Terrible | Hopeless | Helpless | Miserable |
| Unwanted | Sorrowful | Crushed | Distraught | Unloved | Worthless | Deserted |
| Mournful | Wounded | Uncared for | Grievous | Pitiful | Hurt | Dejected |
| Burdened | Discarded | Drained | Rejected | Demoralized | Disgraced | Defeated |
| Humbled | Condemned | Lonely | Resigned | Disheartened | Neglected | Despised |
| Discouraged | Isolated | Slighted | Disappointed | Ashamed | Alienated | Degraded |
| Upset | Distressed | Abandoned | Deprived | Inadequate | Distant | Regretful |
| Wasted | Dismal | Disillusioned | Islanded | Unappreciated | Sorry | Deflated |

ANGRY

| | | | | | | |
|-----------|--------------|-------------|-----------|------------|------------|------------|
| Strangled | Abused | Rebellious | Mad | Furious | Hateful | Pissed off |
| Spiteful | Seething | Humiliated | Outraged | Patronized | Enraged | Sabotaged |
| Fuming | Vindictive | Hostile | Betrayed | Exploited | Used | Vengeful |
| Repulsed | Throttled | Incensed | Ridiculed | Offended | Irritated | Perturbed |
| Resentful | Infantilized | Exasperated | Provoked | Disgusted | Controlled | Harassed |
| Dominated | Smothered | Peeved | Anguished | Coerced | Frustrated | Annoyed |
| Deceived | Cheated | Stifled | Agitated | Aggravated | Uptight | Dismayed |
| Tolerated | Displeased | | | | | |

Source: Todd Mandell, MD, Vermont Office of Drug and Alcohol Programs.
 Reprinted with permission by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program,
 Burlington, VT. 2004; last reviewed 2011.



Connecting your FEELINGS & CRAVINGS DAILY WORKSHEET

Instructions: EVERY half hour, stop what you are doing and fill in the appropriate line. Be brief as you describe what you are doing. Use only words from the work sheet. Remember, this is to help you understand the connection between emotion and cravings. The use of words such as ok, good, fine, or other words that are not on the work sheet, or a line left blank indicates that you were having a strong craving.

| What you are doing | What you are feeling |
|--------------------|----------------------|
| 8:00 _____ | _____ |
| 8:30 _____ | _____ |
| 9:00 _____ | _____ |
| 9:30 _____ | _____ |
| 10:00 _____ | _____ |
| 10:30 _____ | _____ |
| 11:00 _____ | _____ |
| 11:30 _____ | _____ |
| 12:00 _____ | _____ |
| 12:30 _____ | _____ |
| 1:00 _____ | _____ |
| 1:30 _____ | _____ |
| 2:00 _____ | _____ |
| 2:30 _____ | _____ |
| 3:00 _____ | _____ |
| 3:30 _____ | _____ |
| 4:00 _____ | _____ |
| 4:30 _____ | _____ |
| 5:00 _____ | _____ |
| 5:30 _____ | _____ |
| 6:00 _____ | _____ |
| 6:30 _____ | _____ |
| 7:00 _____ | _____ |
| 7:30 _____ | _____ |
| 8:00 _____ | _____ |
| 8:30 _____ | _____ |
| 9:00 _____ | _____ |
| 9:30 _____ | _____ |
| 10:00 _____ | _____ |
| 10:30 _____ | _____ |
| 11:00 _____ | _____ |

Source: Todd Mandell, MD, Vermont Office of Drug and Alcohol Programs. Reprinted with permission by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT. 2004; last reviewed 2011.



Psychosocial PDSA Example

Practice Name: Valleyville Pediatrics

Date: 4/27/11 **Cycle #:** 1

Goal: 95% of pregnant women will have a complete psychosocial assessment (must include substance abuse, domestic violence, depression) done in all 3 trimesters.

Suggested measure: Percent of pregnant women with a thorough substance abuse assessment at the first prenatal visit.

How do you plan to achieve this goal: We plan to have the provider use the TWEAK instrument to assess patients at the first prenatal visit.

The PDSA cycle is a simple yet powerful approach to moving from plan to action designed to help you reach your improvement goal. PDSA cycles are small, rapid tests of change. They provide a format to develop, test, and implement a change. These small steps lead to significant improvement.

How will you implement your plan?

Plan: (Change or test [what, why, when, who, where, how], measures, and prediction)

Although there is a substance abuse checkbox on our prenatal form, we believe that not all pregnant women are thoroughly assessed for substance abuse early in their pregnancy. We plan to use the validated TWEAK instrument to assess women at their first prenatal visit.

A blank TWEAK instrument will be put in the chart of each patient who comes in for her first prenatal visit. The provider will address the TWEAK questions in the exam room when the patient is alone. The provider will fill out the questions on the TWEAK instrument and keep it in the patient chart. One provider will try this on the next 10 patients s/he sees for their first visit. This PDSA should take about 2 weeks to complete.

Measure: By keeping the TWEAK instrument in the patient chart, when we do our monthly data collection for IPCV we will be able to count how many had an assessment, how many had a thorough assessment (all questions answered), and how many scored positive for substance abuse. This information will be used in future PDSA's regarding the referral process for substance abuse.

Prediction: The first month 80% of charts filled out by the designated provider will have a thorough assessment. The second month will increase to 100%.

Do:

The above plan was implemented the first two weeks of October. We needed to invite Dr. Know to our weekly team meeting to ask him to try out the TWEAK, and we asked the front office person to assist with placing the TWEAK tool in the chart form of patients who are coming in for their first prenatal visit.

October data was collected...we needed to add our own measure for use of the TWEAK instrument (the question in the IPCV data collection form was just if an assessment had been done at the first prenatal visit, and didn't indicate instrument)

Study: (Did the changes have the intended effect, summary of what was learned?)

Success! 85% of charts from Dr. Know contained a completed TWEAK instrument. 10% of these patients were positive for alcohol abuse, 0% for drugs. However, Dr. Know is concerned about the length of visit time. He strongly suggests asking a nurse to implement the TWEAK tool before his examination.

Act: (next step)

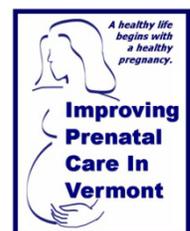
Based on our results we will:

1. include the TWEAK tool in the nurses pre-examination paperwork
2. expand our efforts to all nurses and all patients
3. discuss how to track referral for positive substance abuse



Improving Prenatal Care in Vermont Best Practice Provider Toolkit

Intimate Partner Violence



Intimate Partner Violence Improvement Checklist

One of the most significant challenges for prenatal providers is asking sensitive questions regarding Intimate Partner Violence (IPV). Furthermore, asking these questions in a private setting is often difficult due to a lack of space.

- If the woman is attending the visit alone, the antepartum self-assessment forms and direct questioning can be used to open a conversation. Asking at least once in each trimester will create more opportunity for an admission and a request for assistance.
- If the pregnant woman is always accompanied by another adult, the medical professional must be more creative. IPCV Collaborative practice teams discussed this issue and decided that the restroom may be the only option for privacy. Using this space to offer information and a card asking the pertinent questions regarding intimate partner violence (the card may be left in an envelope) is a good safety option for some women.
- To facilitate a private conversation, and with sensitivity to the individual's situation, you may consider including the following statement, "Now is the time in the appointment when we meet with just the expectant mother. We will call you back in a few minutes."

One IPCV team responded to the need for private screening in a very creative and effective way. A small confidential screening card is attached with a rubber band to the urine specimen cup and given to the patient as she enters the restroom. The attached card can be filled out re-attached to the specimen cup, which is handed to the nurse or left in the restroom for the health provider to retrieve. A sample of this card is provided in this section.

In our practice, we have trouble querying patients about abuse and violence. How do we ask patients about abuse and make sure they understand it's appropriate to give that information in a confidential way? We had an epiphany that we've got to be willing recipients of that information and be ready to help the patient if that information comes through. We need to be able to direct them to their options when they are ready to let us know those things. (OB/GYN, academic health center)

Assess

- All staff should be aware and understand the limits of confidentiality and Vermont's abuse reporting laws; including suspicion or evidence of child abuse.
- Conduct universal screening at first prenatal visit.
- Ensure a safe, comfortable, **private**, and **confidential** environment for screening. **Private** means no family members in the room which includes children, unless of pre-verbal age. For example, implement a confidential intimate partner violence screening card accessible in a safe, private environment such as a bathroom.

Intervene

- If positive, use an in-depth interview guide with a provider present (can use "Psychosocial *Combined Clinical Tool – Intimate Partner Violence Screening Questions*" located in the "Psychosocial/Behavioral" section of the Toolkit). Refer to "*Addressing IPV in a Health Care Setting – Step By Step*" (located in this section) for safety planning, documentation, etc.
- Acknowledge evidence or admissions of abuse, assess current safety status and assist with a safety plan. Provide an abuse hotline (Vermont Network Against Domestic and Sexual Violence: 1-800-228-7395).
- Provide appropriate referrals, documentation, and continued support.
- Create an office protocol and ensure awareness of this protocol among all staff members. If a patient asks for assistance, all staff should be aware of the protocol and be able to easily access it in a centrally located notebook. This notebook should include resources and documentation forms.
- Consider designating a 'point person' who is the 'go-to' person for issues associated with intimate partner violence. This person will act as a resource for the patient and know how to activate and assist her with an appropriate plan. Compile and maintain a list of state and regional resources (i.e., hotline numbers, referral centers, public health contacts). Ensure that the point person routinely updates this list. Consider designating a substitute when the point person is not available.



- Document well. This is very critical. Please refer to “Documenting Intimate Partner Violence”, located in this section, for appropriate methods of documentation in the patient’s record. If, or when, legal action takes place, your documentation may provide significant information.
- Re-screen during the second and third trimester as well as post partum; continually reinforce a concern for patient’s safety and an “open door” if patient decides they need assistance in the future.

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Was this patient screened for intimate partner violence at the 1st prenatal visit?
- If not previously identified, is there documentation of at-risk screening or assessment for intimate partner violence in the second and third trimesters?
- If ‘at-risk’, did patient receive in-house support, referral to the domestic violence hotline in your community?
- If ‘at-risk’, is there documentation of current readiness for assistance, evidence of abuse and patients outlook on current situation?
- Is there documentation of patient’s intention to seek support and/or counseling as referred?
- Is there documentation of patient’s connection with community support programs and progress and reaction to services offered or received?
- Connect with the domestic/sexual violence program in your community. Getting to know the advocates will help you feel comfortable with the resources available and the referral process. Consider inviting a representative to a staff meeting or office lunch break to explain their services.

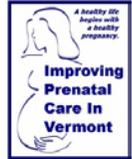


Resources and References

- American College of Obstetricians and Gynecologists. Accessed May 5, 2011. www.acog.org. Search: “Violence Against Women homepage”.
- American Medical Association Violence Prevention Website. Search: “Diagnostic and Treatment Guidelines on Domestic Violence.” Accessed May 21, 2011. <http://www.ama-assn.org/ama/pub/category/3242.html>.
- Association of Women's Health, Obstetric and Neonatal Nurses. Assessed May 5, 2011. www.awhonn.org
- Bancroft, L. (2002) *Why Does He Do That? Inside the Minds of Angry and Controlling Men*, New York, NY: Putnam's
- Bancroft, L., & Silverman, J. G. (2002). *The Batterer As Parent. Addressing the Impact of Domestic Violence on Family Dynamics*. Thousand Oaks, CA: Sage.
- Beck, C.T., Records, K., & Rice, M. (2006). Further Development of the Postpartum Depression Predictors Inventory - Revised. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 35(6), 735-745.
- Domestic Violence. ACOG Technical Bulletin No. 257. December, 1999
- Florida's Healthy Start Prenatal Risk Screening Instrument. Florida Department of Health. Accessed June 21, 2011. <http://www.hscmd.org/HealthyStartRiskScreening.asp>
- Futures Without Violence. Accessed May 10, 2011. Search: “Programs”, then “Health” www.futureswithoutviolence.org
- Gerber, M. R., Leiter, K., Hermann, R. C., & Bor, D. H. (2005). How and why community hospital clinicians document a positive screen for intimate partner violence: a cross-sectional study. *BioMedical Central Family Practice*, 6(48). Accessed June 1, 2011. <http://www.biomedcentral.com/1471-2296/6/48>
- Groves, B. (2002). *Children Who See Too Much: Lessons from the Child Witness To Violence Project*. Boston Medical Center. Boston, MA: Beacon Press
- Haggerty, L. A., & Goodman, L. A. (2003). Stages of change-based nursing interventions for victims of interpersonal violence. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 32(1), 68-75.
- Kahn, D., Moline, M. L., Ross, D. W., Cohen L. S., & Altshuler, L. L. (2001). Major Depression During Conception and Pregnancy: A Guide for Patients and Families. *PostGraduate Medicine Special Report*, Expert Consensus Guidelines Series, 3, 110-111.
- Nursing Network on Violence Against Women, International: www.nnvawi.org
- Vermont Department of Children and Family Service (DCF)
 - Child Abuse Reporting homepage: http://dcf.vermont.gov/fsd/reporting_child_abuse
 - Domestic Violence Unit homepage: http://dcf.vermont.gov/fsd/domestic_violence
- Vermont Network Against Domestic Violence and Sexual Assault. Accessed May 5, 2011, vtnetwork@vtnetwork.org



**CONFIDENTIAL
TO ALL OUR PATIENTS**



One woman in five will be in a relationship that is unsafe at some time in her life. Partner violence often increases when a woman becomes pregnant.

As your nurses, doctors, and midwives, we are concerned about your safety and the safety of your baby.

Please initial the statement that applies to you. If you feel you are physically and/or emotionally unsafe, we can arrange to meet with you privately so that you can discuss your concerns for yourself or for your baby.

This card is confidential. This information is private and will only be seen by your provider. It will *not* be a part of your hospital record.

Created by Dartmouth Hitchcock Medical Center. Printed by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT
Last reviewed 2011.

_____ I am not ready to talk about partner violence now.

_____ I would like to meet privately to learn more about partner violence.

_____ I am in an unsafe relationship and would like to speak privately with my doctor or midwife.

_____ I am in a safe and supportive environment.

Please initial the appropriate response and return this card through the window with your urine sample.

THANK YOU

**CONFIDENTIAL
TO ALL OUR PATIENTS**



One woman in five will be in a relationship that is unsafe at some time in her life. Partner violence often increases when a woman becomes pregnant.

As your nurses, doctors, and midwives, we are concerned about your safety and the safety of your baby.

Please initial the statement that applies to you. If you feel you are physically and/or emotionally unsafe, we can arrange to meet with you privately so that you can discuss your concerns for yourself or for your baby.

This card is confidential. This information is private and will only be seen by your provider. It will *not* be a part of your hospital record.

Created by Dartmouth Hitchcock Medical Center. Printed by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT
Last reviewed 2011.

_____ I am not ready to talk about partner violence now.

_____ I would like to meet privately to learn more about partner violence.

_____ I am in an unsafe relationship and would like to speak privately with my doctor or midwife.

_____ I am in a safe and supportive environment.

Please initial the appropriate response and return this card through the window with your urine sample.

THANK YOU

HELPFUL QUESTIONS TO ASSESS AN INDIVIDUAL'S STAGE OF CHANGE

Remember, it is the abuser who needs to change. What we offer is support, a place to safely discuss the patient's situation and community based resources. Remembering the limitation of confidentiality for mandatory reporting of abuse we offer as much or as little support as the patient is able to accept at this point in time.

When a patient indicates she may be experiencing abuse or sexual violence, these questions may help you explore, with her, her readiness to accept support.

Questions about Abuser:

- Has your partner ever hurt you?
- What, in your opinion, causes your partner's abusive behavior?
- When your partner becomes angry or hurts you, how much at risk do you think you are for serious injury?
- Describe the most frightening situation that has occurred with your partner.
- Describe the most recent time your partner hurt you or tried to hurt you.

Questions about women's perception of the abuse and the relationship in which it occurs:

- What would you say are the good things about your partner? What are the not so good things?
- What are the good things about your relationship with your partner? What are the not so good things?
- Do you expect your partner's behavior to get worse, better, or stay about the same?
- How long have you been thinking that your partner really could hurt you?
- What do you think is the hardest part of this situation for you?

Questions about help-seeking and other safety-promoting actions

- Have you discussed what has been happening with anyone close to you? (if yes) What happened? (if no) Have you ever thought about doing so?
- Have you ever reached out for help to any public agencies before? (if yes) What happened? (if no) Have you ever thought about doing so?
- What things have you tried to keep yourself safe?
- What worked? What didn't work?
- What would you do if you had unlimited resources?
- What barriers would stand in your way if you decided to take action to promote your safety?
- What supports would help you if you decided to take action to promote your safety?
- Are you in fear of other children being harmed in your home? (*Remember to discuss confidentiality limits*)
- Are you currently in safe housing?



Intimate Partner Violence (IPV) Assessment Tool*

*To be used AFTER the tool, “Assessing IPV in a Healthcare Setting Step by Step” and can be used in conjunction with **Psychosocial Combined Clinical Tool**)

1. Assess the immediate safety needs of the woman.

Are you in immediate danger? Where is the perpetrator now? Is it safe to go home? Do you want the police or security to be notified? Is it safe to take this written information home with you? Will it be safe for you to meet with advocates in the community or would you like to meet with them in one of our offices? **(Respond to the safety needs!)**

2. Assess the pattern and history of abuse.

Assess the perpetrator’s **physical, sexual, or psychological** tactics, as well as the economic coercion of the patient. **Document this, including the perpetrator’s name and dates of assault(s) if possible.**

3. Assess the connection between the violence and the patient’s health issues.

Assess the impact of the violence on the victim’s physical and psychological well-being. Have there been other incidents that caused injuries or illness? How is this situation affecting the way you feel and think? How is this situation affecting your health overall? **Document the health impact.** (See documentation checklist).

4. Assess patient’s safety risks.

Intimate Partner Violence: is there increased risk of injury or death?

Risk factors that increase risk of injury or death include:

- possession of weapons
- use or threatened use of weapons
- threats of homicide or suicide
- recent escalation in frequency and severity of attacks
- heavy use of alcohol or drugs
- victim’s increased fear of injury or death
- victim is being stalked
- victim’s attempt to leave or separate
- batterer’s unemployment

**Also ask about the children’s safety, including any threats the batterer has made about the children (he will kidnap them, she will never see them again, he will report her to DCF, he will kill her and the children). Keep the content explaining limitations of confidentiality.

** Record any information disclosed first explaining the limitations of confidentiality regarding child abuse.

Sexual Violence:

- Risk of repeated assault or retaliation for reporting
- Infection with HIV/STI
- Pregnancy (Reminder: Past or present pregnancy could be a result of sexual violence)
- Suicide risk or risk of self-injury
- Hidden internal injuries

5. Assess the patient’s current access to advocacy and support resources.

Has the patient used or is currently using community resources like hotlines, support groups, family centers, counselors, legal advocacy or resources etc? How helpful is/was that? What else does the patient need and what else might be available? **(respond/refer)**



VERMONT ABUSE REPORTING LAWS FOR HEALTH CARE PROVIDERS

For definitions and laws check Vermont Statutes (www.leg.state.vt.us/statutes)

I. ADULT INTIMATE PARTNER VIOLENCE:

Reporting Requirement: No

Exceptions: 1. **Vulnerable Adults** (see II. below)
2. **Gunshot injuries** 13 VSA §4012 (chapter 85). If you treat any injury caused by discharge of firearm, you need to report to local police department or VT State Police. They will follow up with investigation.

II. ABUSE OF VULNERABLE ADULTS (ELDER OR DISABLED):

Reporting Requirement: Yes. 33 VSA §6902-6904.(Chapter 69). Report within 48 hours.

Report to: Adult Protective Services (APS)

Contact: For questions or to obtain reporting form: 802-241-2345 (Mon-Fri 7:45 – 4:00) Reporting: 1-800-564-1612; Fax written report to: 241-2358; questions about whether a case meets criteria: 241-3924

What to expect: APS Field Investigator may contact you with further questions. If they start an investigation, they *may* ask you or other health care professionals (e.g. Home Health care) to coordinate setting up a confidential interview with victim, if victim cannot be safely contacted. Due to confidentiality rules, you may not hear about investigation or any actions taken. Victim has right to refuse giving information or accepting services. If victim is interested in services, they will try to refer and coordinate, also help with restraining orders etc. APS will refer to police if they believe crime has occurred. APS refers **any** case involving a Medicaid client to Medicaid Fraud unit. In contrast to APS, Medicaid can take the case to court and can also follow the case around the country.

III. CHILD ABUSE

Reporting Requirement: Yes. 33 VSA §4912-14 (chapter 49). Report within 24 hours.

NOTE: DCF usually focuses on **abuse of children or youth by caretakers**. They do **not** usually take on **dating violence** cases **unless** case includes **sexual violence**.

Report to: Department For Children and Families, Family Services Division, **Child Abuse Hotline 1-800-649-5285 (24 hours a day, 7 days a week)**. http://dcf.vermont.gov/fsd/reporting_child_abuse . The information you will be asked to provide will include name of caretakers and the names, ages, schools, and child care providers of all children. In addition, the Centralized Intake Social Worker will ask for your name, title and contact information with mailing address. Mandated reporters are also asked to provide a written report to DCF when possible.

What to Expect: If this case meets legal definitions for acceptance for a child safety intervention, DCF will commence an investigation or assessment within 72 hours of the report. Please visit the DCF website for additional information http://dcf.vermont.gov/sites/dcf/files/pdf/fsd/Reporting_Child_Abuse.pdf
Department of Children and Family Services (DCF).

JCAHO

- **PE.1.9** Possible victims of abuse are identified using criteria developed by the hospital.
- **PE.8** Patients who are possible victims of alleged or suspected abuse or neglect have special needs relative to the assessment process.

American Medical Association: "All physicians should begin to respond to the JCAHO requirements of recognition, crisis intervention and referral". (Diagnostic and Treatment Guidelines on Domestic Violence, 1992)



Consent to Photograph

The undersigned hereby authorizes

(Name of Organization)

and the attending physician to photograph or permit another person in the employ of this facility to photograph

(Name of Patient)

while under the care of this facility, and

(Name of Patient or legal guardian)

agrees that the negatives or prints be stored in the client's medical record, sealed in a separate envelope, so that they may be used later for evidence. These photographs will be released only to the police or the prosecutor when the undersigned gives permission to release the medical records or in case of a court order. The undersigned does not authorize any other use to be made of these photographs.

(Date)

(Signature of Patient or Legal Guardian)

(Name and signature of witness)

(Street Address of Patient)

(City)

(State)

(Zip Code)



Checklist: Documenting Intimate Partner Violence in Medical Records

In order to provide documentation that is admissible and effective in court cases medical records need to include:

- Full identity of victim (DOB, SSN, full name)
- Date and time of treatment
- Full name of attending physician
- Nature and location of all injuries
- Victim/patient's statements regarding who caused injuries, how injuries were caused, preceding history of violence
- Full name of perpetrator and relationship with victim
- Diagnosis and treatment
- Photographs of all injuries
- Injury location chart (body map)
- Documentation concerning all physical evidence recovered by health care professionals and the disposition of the evidence

Sample Medical Documentation: OB/GYN Practice Setting (adapted from version by Ronald A. Chez, M.D., Tampa, FL 1995)

| What was written | What should have been written |
|---|---|
| <p>Ob/gyn: Hx: G2P2, 16 weeks by dates, kicked in abdomen Dx: IUP, blunt trauma to abdomen Rx: Prenatal vitamins, f/u clinic appt.</p> <p>Med: Hx: listing of vague medical complaints incl: chest pain, problem with husband Dx: Atypical chest pain Rx: Clinic appt., analgesia</p> <p>Psych: Hx: Mention of abuse, sx of anxiety Dx Adjustment disorder with anxious mood Rx: Referral to MHC, Librium</p> | <p>24y/o g2p2 16 weeks gestation. Stated husband John Doe kicked her in the abdomen 2 hours ago. Pt tearful. Said "He tried to kick me several times". Pt. Has not felt fetal movement since. No vaginal bleeding, loss of fluids, cramping.</p> <p>Pt states "He used to slap me around before I got pregnant". Since pregnant, frequency about every 2-3 weeks, usually slapping or punching. Pt reports no weapons used, no threats of homicide/suicide, and that husband has not abused two children in home. Pt reports she has not been allowed to seek prenatal care before this visit.</p> <p>Pt. also complaining of anterior chest pain since being kicked today: increased with deep breathing, no radiation, no palpitations (...)</p> <p>"Plan: 1) observe for 4 hrs for contractions, fetal monitoring; 2) discuss options of shelter, offer patient safety plan; 3) social service consult stat; 4) discuss importance of prenatal care with pt and husband; 5) pt consent to photograph form, picture of abdomen taken, 6)F/u clinic appt</p> |

For more information on this topic: Documenting Domestic Violence: How Health Care Providers Can Help Victims, by Nancy E. Isaac and V. Pualani Enos, National Institute of Justice, Research in Brief, Sept 2001.

<http://www.ncjrs.org/pdffiles1/nij/188564.pdf>

Sherri L. Schornstein, *Domestic Violence and Health Care: What Every Professional Needs to Know*, Thousand Oaks, CA, London and New Delhi: Sage, 1997 (details about legal and court issues)

Source: VT Curriculum on Intimate Partner Violence: Unit 2 Handouts
 VT Network Against Domestic and Sexual Violence
 Printed with permission by Improving Prenatal Care in Vermont,
 Vermont Child Health Improvement Program, Burlington, VT. 2004.



SAFETY PLAN AND DISCHARGE INSTRUCTIONS

Note: Discuss with patient but do not give to take home if unsafe to do so. This is not a substitute for individualized safety planning with a community-based advocate.

Step 1: Safety during a violent incident. I can use some or all of the following strategies:

- A. If I have/decide to leave my home, I will go _____.
- B. I can tell _____ (neighbors) about the violence and request they call the police if they hear suspicious noises coming from my house.
- C. I can teach my children how to use the telephone to contact the police.
- D. I will use _____ as my code word so someone can call for help.
- E. I can keep my purse/car keys ready at _____ (place), in order to leave quickly.
- F. I will use my judgment and intuition. If the situation is very serious, I can give my partner what he/she wants to calm him/her down. I have to protect myself until I/we are out of danger.

Step 2: Safety when preparing to leave. I can use some or all of the following safety strategies:

- A. I can contact the local domestic violence program for help with safety planning. The number is _____.
- B. I will keep copies of important documents, spare keys, clothes and money at _____.
- C. I will open my own savings account by (date) _____, to increase my independence. Other things I can do to increase my independence include: _____.
- D. I can keep change or pre-paid phone cards for my phone calls on me at all times. I understand that if I use my telephone credit card, the telephone bill will show my partner those numbers that I called after I left.
- E. I will check with _____ (family, friends) to see who would be able to let me stay with them or lend me some money.
- F. **If I plan to leave, I won't tell my abuser in advance face-to-face, but I will leave a note or call from a safe place.**

Step 3: Safety in my own residence. Safety measures I can use include:

- A. I can change the locks on my doors and windows as soon as possible.
- B. I can replace wooden doors with steel/metal doors.
- C. I can install additional locks, window bars, poles to wedge against doors, and electronic systems etc.
- D. I can install motion sensor lights outside.
- E. I will teach my children how to make a collect call to _____ if my partner takes them away.
- F. I will tell people who take care of my children that my partner is not permitted to pick up my children.
- G. I can inform _____ (neighbor) that my partner no longer resides with me and they should call the police if he is observed near my residence.

Step 4: Safety with a protection order. The following are steps that help the enforcement of my protection order:

- A. Always carry a certified copy with me and keep a photocopy in a safe place.
- B. I will give my protection order to police departments in the community where I work and live and to my children's school(s).
- C. I can get my protection order to specify and describe all guns my partner may own and authorize a search for removal.

Source: VT Network Against Domestic and Sexual Violence, 2003,
1-800-228-7395 or <http://www.vtnetwork.org>. Printed with permission by Improving
Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT



DISCHARGE INSTRUCTIONS

When a woman who has indicated she is in an abusive or violent relationship is being discharged from the hospital, consider providing her with this information as a resource and support.

If you are currently being abused...

As you read this, you may be feeling confused, frightened, sad, angry or ashamed. **You are not alone!** Unfortunately, what happened to you is very common. Domestic violence does not go away on its own. It tends to get worse and more frequent with time. There are people who can help you. If you want to begin talking about the problem, need a safe place to stay, or want legal advice—call one of the resources given to you today.

While still at the clinic/hospital...

- Think about whether it is safe to return home. If not, call one of the resources given to you today, or stay with a friend or relative.
- Battering is a crime and you have the right to legal intervention. You should consider calling the police for assistance. You may also be able to obtain a court order prohibiting your partner from contacting you in any way (including in person or by phone). The local domestic violence program is _____ and their crisis line number is _____.
- You may also contact an attorney for more information.
- Ask the doctor or nurse to take photos of your injuries to become part of your medical record.

When you get home...

- Develop an “exit plan” in advance for you and your children. Know exactly where you could go even in the middle of the night—and how to get there.
- Pack an “overnight bag” in case you have to leave home in a hurry. Either hide it yourself or give it to a friend to keep for you.
- Pack toilet articles, medications, an extra set of keys to the house and car, an extra set of clothing for you and your children, and a toy for each child. Keep in a safe place.
- Have extra cash, loose change for phone calls, checkbook, or savings account book hidden or with a friend.
- Pack important papers and financial records (the originals or copies), such as social security cards, birth certificates, green cards, passports, work authorization and any other immigration documents, voter registration cards, medical cards and records, driver’s license, rent receipts, title to the car and proof of insurance, etc. Keep in a safe place.

REFERENCES:

Identifying and Responding to Domestic Violence: Consensus Recommendations for Child and Adolescent Health. The Family Violence Prevention Fund. September 2002.

Source: VT Network Against Domestic and Sexual Violence, 2003
1-800-228-7395 or <http://www.vtnetwork.org>. Printed with permission by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT



ADDRESSING INTIMATE PARTNER VIOLENCE IN A HEALTH CARE SETTING STEP BY STEP

SCREEN

- routinely
- **in private** (screening in presence of partner/family member is ineffective or dangerous)
- confidentially (address mandatory reporting here to patient under limits of confidentiality. Victims of IPV often have concerns about their children as well as their own safety. If patient has concerns about her child's welfare, share information with her about DCF)
- all adult and adolescent female patients; males if indicators present

1. Frame:

"Because so many people are impacted by violence, I have begun to ask all my patients about it."

OR: "I am concerned that your symptoms may have been caused by someone hurting you."

AND: "If you talk to me about violence it is confidential. I will not share this information unless you are telling me about child abuse, or about [*fill in other limitations if applicable*]."

2. Ask Directly (or use "Provider Guide for Interview Each Trimester"):

- "Has anyone/your partner/your husband/your boyfriend ever hurt you physically?"
- "Has he/she hit you? grabbed you? prevented you from leaving the room or house?"
- "Does he/she ever put you down, call you names, make you feel bad about yourself?"
- "Has he/she threatened to hurt you, or to hurt someone close to you?"
- "Does he/she try to control what you do, who you see?"
- "Has he/she ever forced you to have sex? Or hurt you during sex? "
- "You said he/she acts out sometimes when he/she is drunk. What exactly does he/she do to you then?"
- "You said you fight like all couples. Does it ever get physical? Do you ever feel afraid?"

3. Validation, Information

If disclosed abuse:

"I am very sorry this happened to you. Nobody deserves to be treated like this. I am concerned about your safety."

If no: "I am glad. I would like you to know, that if this ever happens to you, this (clinic) is a safe place to talk about it. Also: if you ever want to pick up some more information, for yourself or for someone else, we keep brochures and safety cards in the (restrooms). They have numbers that people can call confidentially 24 hours/day and also other resources."

ASSESSMENT

"I'd like to ask you a few more questions to understand better what is happening to you. This may be affecting your health and safety and I would like to know how to be most helpful to you. Again, this information is confidential."

(Use "Intimate Partner Violence Assessment Guide" and "Domestic Violence Screening Questions" with lethality assessment and body map)



INTERVENTION

1. Documentation

In **chart**: verbatim quotes, incidents - who (full name and relationship of perpetrator), what, when, how often, health impact. Use **neutral language**: “patient states” NOT: “alleges”, “claims” (use “**Documenting IPV in Medical Records Checklist**”). **Photographs** of injuries (use “**Consent to Photograph**” form); full body, close-up, use tape measure to indicate size.

For sexual assault evidence, refer to Sexual Assault Nurse Examiner (SANE) Protocol in your local hospital.

2. Safety Plan

If screened positive for lethality risk factors in step IV:

- “Experience has shown that these things [*name risk factors*] MAY put you at risk for serious injury or worse. I am very concerned about your safety and would like to help you with safety planning.”
(Refer for safety planning to trained staff or on call advocate OR review safety plan yourself (use “**Safety Plan and Discharge Instructions**” tool)

If patient not concerned about her/his safety: explain that safety planning is available through local domestic and sexual violence program AND/OR hand out safety planning tool (ask whether safe to take home).

Ask: “How can I best support your health and safety?”

3. Education

Offer some education on domestic violence as appropriate, verbally or through a brochure (“**Power and Control Wheel**”). Mention how this may be impacting her/his health, possible impact on children, prevalence, which resources have been helpful to other survivors, etc.

RESOURCES and REFERRALS

Check for safest and most comfortable option:

- Refer to appropriate staff for in-depth consultation about resources/referrals AND/OR:
- Give resource/referral information (brochure, pocket card) [*is it safe for her/him to take written information home? where else can s/he read it?*]
AND/OR:
- Refer to local Domestic/Sexual Violence program for options counseling and access to further resources. [*will s/he be able to access the local program, ability to make confidential phone calls? does s/he need to use a phone in the clinic? would s/he like to arrange a meeting with an advocate at the clinic?*]

Tools:

If you need to re-order safety plans, assessment tools, documentation forms: “National Consensus Guidelines on Identifying and Responding to Domestic Violence Victimization in Health Care Settings”, published by Family Violence Prevention Fund. www.endabuse.org (downloadable PDF) or 415-252-8900. For statewide resource information in Vermont: VT Network Against Domestic Violence and Sexual Violence (800) 228-7395, or vtnetwork@vtnetwork.org.



STATEWIDE HOTLINES
(connects with closest local program)

1-800-228-7395 (Domestic Violence) ----- 1-800-489-7273 (Sexual Assault)

Local Domestic & Sexual Violence Programs: 24/7
hotlines, options counseling, legal information, emergency safe housing, social services advocacy, hospital advocacy for sexual assault survivors, support groups, support for child witnesses

* = Shelter

Addison and the town of Rochester:

WOMENSAFE
P.O. Box 67, Middlebury, VT 05753
Hotline: 388-4205 or 1-800-388-4205; TTY: 388-4305
Email: info@womensafe.net

Bennington:

* PROJECT AGAINST VIOLENT ENCOUNTERS (PAVE)
P.O. Box 227, Bennington, VT 05201
Hotline: 442-2111; Email: pave@pavebennington.net

Caledonia, Orleans and Essex:

* The Advocacy Program at UMBRELLA
1222 Main Street #301, St. Johnsbury, VT 05819
Hotline: 748-8645; Email: zoe@umbrellanek.org

93 East Main Street, Suite #1, Newport, VT 05855
Hotline: 334-0148; Email: michelle@umbrellanek.org

Caledonia (Hardwick area) and town of Woodbury:

AWARE
P.O. Box 307
Hardwick, VT 05843
Hotline: 472-6463; Email: aware@vtlink.net

Chittenden:

WOMEN'S RAPE CRISIS CENTER
P.O. Box 92, Burlington, VT 05402
Hotline: 863-1236; TTY: 846-2544;
Email: stoprape@sover.net

* WOMEN HELPING BATTERED WOMEN
P.O. Box 1535
Burlington, VT 05402
Hotline: 658-1996; Email: whbw@whbw.org

Franklin and Grand Isle:

*VOICES AGAINST VIOLENCE
P.O. Box 72, St. Albans, VT 05478
Hotline: 524-6575; Email: voices@cvoeo.org

Lamoille:

*CLARINA HOWARD NICHOLS CENTER
P.O. Box 517
Morrisville, VT 05661
Hotline: 888-5256; Email: chnc@clarina.org

Orange and Northeastern Windsor:

SAFELINE
P.O. Box 368, Chelsea, VT 05038
Hotline: 1-800-639-7233; Email: safelineinfo@safelinevt.org

Rutland:

* RUTLAND COUNTY WOMENS NETWORK
AND SHELTER
P.O. Box 313
Rutland, VT 05701
Hotline: 775-3232; Email: rcwnsmiche@yahoo.com

Washington:

* CIRCLE
P.O. Box 652, Barre, VT 05641
Hotline: 1-877-543-9498; Email: circlevt@sover.net

* SEXUAL ASSAULT CRISIS TEAM

4 Cottage Street, Barre, VT 05641
Hotline: 479-5577; Email: sactwc@aol.com

Windham (including village of Bellows Falls):

* WOMEN'S CRISIS CENTER
P.O. Box 933, Brattleboro, VT 05302
Hotline: 254-6954 or 1-800-773-0689
Email: wmnsc@myfairpoint.net

Windsor (Northeast):

* WISE
38 Bank Street, Lebanon, NH 03766
Hotline: 603-448-5525
Email: peggy.oneil@wiseoftheuppervalley.org

Windsor (south & town of Rockingham):

NEW BEGINNINGS
23 Pleasant Street, Springfield, VT 05156
Hotline: 885-2050 or 674-6700;
Email: newbeg@vermontel.net

SPECIALIZED SERVICES:

SAFESPACE – gay, lesbian, bisexual, transgender, queer and questioning people
The Champlain Mill, 20 Winooski Falls Way
Suite 102, Winooski, VT 05404
860-7812; Email: thecenter@ru12.org
DEAF VERMONTERS ADVOCACY SERVICES (DVAS)
P.O. Box 61, South Barre, VT 05670
TTY: 888-202-3827 or 800-303-3827; Email: kdarling@dvas.org

Statewide Coalition Office: public policy, statewide trainings, consultation

VERMONT NETWORK AGAINST DOMESTIC AND SEXUAL VIOLENCE
P.O. Box 405, Montpelier VT 05601
Phone: (802)223-1302; TTY: 223-1115
Email: vtnetwork@vtnetwork.org



Intimate Partner Violence and OB/GYN Care: Making the Connection

Intimate Partner Violence

- Pattern of assaultive and coercive behaviors: inflicted physical injury, psychological abuse, sexual assault, progressive social isolation, stalking, deprivation, intimidation and threats.
- Perpetrated by someone who is, was, or wishes to be involved in an intimate or dating relationship with an adult or adolescent,
- Aimed at establishing control by one partner over the other
- Experts believe that domestic violence occurs in the lesbian, gay, bisexual and transgender communities with the same amount of frequency and severity as in the heterosexual community. Refer to the National Coalition Against Domestic Violence (NCADV) www.ncadv.org for more information on topics such as:
 - Domestic violence and lesbian, gay, bisexual transgender relationships
 - The facts on reproductive health and violence against women
 - The facts on Adolescent pregnancy, reproductive risk and exposure to dating and family violence

Intimate Partner Violence and its Effects on Health: OB/GYN Context

- Studies have found that between **0.9-20.1% of pregnant women** are abused during pregnancy. (Gazmararian JA, Lazorick S, Spitz AM, et al. Prevalence of violence against pregnant women. *JAMA*. 1996;275:1915-1920.) Given the data we have, pregnant women are **more likely to die from intimate partner violence than from eclampsia, clotting disorders, or diabetes.**
- **51% of young mothers on public assistance experienced birth control sabotage by a dating partner** (Center for Impact Research. Domestic Violence and Birth Control Sabotage: A Report from the Teen Parent Project, 2000, Chicago, IL.).
- **Low income adolescents who experienced physical or sexual dating violence were 3 times more likely to have rapid repeat pregnancies.** (Jacoby M et al, Rapid Repeat Pregnancy and Experiences of Interpersonal Violence Among Low-income Adolescents, *American Journal of Preventive Medicine*. 1999; 16(4):318-321)
- **Women disclosing physical abuse were 3 times more likely to experience an STI.** (Coker AI et al, Physical Health Consequences of Physical and Psychological Intimate Partner Violence. *Archives of Family Medicine*. 2000; 9: 451-457)
- **More than 2/3 of HIV-positive women were abused as adults; 45% of HIV-positive women were abused after HIV diagnosis.** (Gielen AC et al, Women's Lives After an HIV-Positive Diagnosis. *Maternal and Child Health Journal*. 2000; 4 (2): 111-120)
- **Abused women were twice as likely to start prenatal care late.** (Mc Farlane J et al, Assessing For Abuse During Pregnancy: Severity and Frequency of Injuries and Associated Entry into Prenatal Care. *JAMA* 1992; 267(23):3176-3178)
- **Pregnant women experiencing abuse were more likely to use alcohol/drugs.** (Amaro H et al, Violence During Pregnancy and Substance Use. *American Journal of Public Health* 1990; 80(5): 575-579)
- **Prenatal violence was a significant risk factor for pre-term birth among pregnant adolescents.** (Covington DL et al, Severity, Manifestations, and Consequences of Violence Among Pregnant Adolescents. *Journal of Adolescent Health*. 2001; 28: 55-61)
- **Women disclosing abuse less likely to breastfeed.** (Acheson L. Family Violence and Breast-Feeding. *Archives of Family Medicine*. 1995; 4:650-652)
- **Childhood exposure to violence associated with failure to thrive, speech disorders, GI problems, PTSD and attachment disorder.** (Leiberman AF. Attachment, Trauma and Domestic Violence. *Child and Adolescent Psychiatric Clinics of America*. 1998; 7(2): 423-443)
- **Children of battered women are less likely to get immunizations.** (Attala J. Preschool Children of Battered Women Identified in a Community Setting. *Issues in Comprehensive Pediatric Nursing*. 1997; 20:217-225)



Possible indicators of Intimate Partner Violence in your patients:

- Injuries
 - frequent
 - unexplained or history inconsistent
 - delayed treatment
 - multiple stages of healing
 - defensive posture
 - pattern (e.g. finger imprints)
 - “bathing suit” pattern
 - genital area
- Depression, anxiety, PTSD, suicide risk
- Chronic pain without etiology
- GI complaints: ulcers, irritable bowel disease, vague epigastric pain
- Frequent visits
- High number of STIs, vaginal/urinary tract infection, pregnancies, abortions, miscarriages
- Non-compliance with treatment protocols, cancelled visits

Role of the Health Care Provider:

- Acknowledge the issue
- Treat physical and mental health sequelae
- Assess and record abuse and health sequelae
- Address safety
- Help open doors to options and resources

Not the Role of the Health Care Provider:

- Force a disclosure
- Fix the Problem
- Lengthy Counseling

Additional Resources:

- Family Violence Prevention Fund. www.endabuse.org This site has resources for health care settings. Including free information packets, stats and facts, manuals, outreach materials (posters, stickers, safety cards etc). New **video** “Screening to End Abuse” with clinical scenarios (\$10). Some of the forms used in this training were adapted from their “**National Consensus Guidelines** on Identifying and Responding to Domestic Violence Victimization in Health Care Settings” (downloadable in PDF format or purchase for \$5).
- American Medical Association: Violence Prevention Website: <http://www.ama-assn.org/ama/pub/category/3242.html> has several sets of clinical guidelines on different forms of family violence. Online in PDF format or order.
- Nursing Network to End Violence Against Women International: www.nnvawi.org
- American College of Obstetricians and Gynecologists: www.acog.org search for their Violence Against Women homepage
- About Children witnessing domestic violence: Groves, Betsy. (2001). *Children Who See Too Much: Lessons from the Child Witness To Violence Project*. Child Witness to Violence Project, Boston Medical Center. Or visit their website at <http://www.bostonchildhealth.org/childwitnessstoviolence>.
- National Coalition Against Domestic Violence www.ncadv.org
- National Center on Elder Abuse www.elderabusecenter.org
- Stalking Resource Center (National Center for Victims of Crime) www.ncvc.org/src

Source: VT Network Against Domestic and Sexual Violence, 2003
 1-800-228-7395 or <http://www.vtnetwork.org>. Printed with permission by
 Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT



More Materials on Intimate Partner Violence and Pregnancy:

- Bancroft, L., & Silverman, J.G. (2002). *The Batterer As Parent*. Sage Publications, 2002
- Cokkinides VE, Coker AL, Sanderson M, Addy, C., Bethea, L. (1999). Physical Violence During Pregnancy: Maternal Complications and Birth Outcomes. *Obstetrics & Gynecology*, 93, 661-666.
- Gerbert, B., Caspers, N., Millolen, N., Berlin, M., Bonstone, A., & Moe, J. (2000). Interventions that help victims of domestic violence. A qualitative analysis of physicians' experiences. *Journal of Family Practice*, 49(10), 904-906. (This article explains, in detail, what makes screening most effective – in the words of physicians who have tried.)
- McFarlane, J. (1993). Abuse during pregnancy: the horror and the hope. *Perinatal Women's Health Nursing*, 4, 350-362.
- Ramsay, J., Richardson, J., Carter, Y. H., Davidson, I., & Feder, G. (2002). Should health professionals screen women for domestic violence? Systematic review. *British Medical Journal*, 325, 314.
- Parker, B., McFarlane, J., Soeken, K., Silva, C., & Reed, S. (1999). Testing an intervention to prevent further abuse to pregnant women. *Research in Nursing & Health*, 22, 59-66.
- A Handbook for Health and Social Service Professionals Responding to Abuse During Pregnancy. http://www.hcsc.gc.ca/hppb/familyviolence/pdfs/pregnancy_e.pdf
- Minnesota Center Against Violence and Abuse <http://www.mincava.umn.edu/library/dv/#562>



Intimate Partner Violence PDSA Example

Practice Name: Dr. Hans Wonderful

Date: April 27, 2011

Cycle #: 1

Goal: To improve the quality of our screening for domestic violence

Suggested measure:

100% of patients will be screened for abuse and violence against them during pregnancy.

How do you plan to achieve this goal:

Use PDSA cycles to gradually introduce best practice screening for domestic violence in our day to day care.

The PDSA CYCLE

The PDSA cycle is a simple, yet powerful, approach to moving from plan to action designed to help you reach your improvement goal. PDSA cycles are small, rapid tests of change. They provide a format to develop, test, and implement a change. These small steps lead to significant improvement.

How will you implement your plan?

Plan: (Change or test [what, why, when, where, how], prediction, measures)

1. **“Ten Question Psychosocial Screening Tool”** used by all providers during initial interview with new patients.
 - **MONDAY:** Ann will photocopy **“Combined Clinical Screening Tool”** that contains the ten questions for Domestic Violence and Depression
 - **TUESDAY:** Ann will place photocopies of in-depth screening tools in folders and place in file holder, on desk, in each exam room.
 - **WEDNESDAY and THURSDAY:** Ann will begin to place 10 question screening in all charts for the day and place a “+” on the outside left top corner of each chart. When screening is complete nurse/CNM/MD will turn the “+” into a “√” on outside of chart. These charts will not be filed.
2. **Measure: FRIDAY** Tom will study all un-filed charts from Wednesday and Thursday. He'll calculate the % of charts with “√” as opposed to just a “+” (i.e., screening tool used), and % of charts with a completed screening tool (i.e., all 10 questions addressed)
 - Prediction – By the end of the week, 90% of the **“Ten Question Psychosocial Screening Tools”** in the charts studied will have been used, 90% will have been completely filled out.
3. Study - On Wednesday of the following week we will have our weekly 10 minute meeting to assess progress of this PDSA for ease of office flow. We'll ask for feedback from providers who've used the tool, and look at Tom's results.
4. Friday: Ann will call the local domestic violence program and invite a representative to next Thursday's lunch break to review the resources and support offered in the community.

Do: Plan carried out as above the week of 05/07/11. Note, Tom was unavailable, so Fred did study.

Study: (Did the changes have the intended effect, summary of what was learned)

We found that our goal for use of the screening tool (90%) was exceeded in that 100% of the charts studied had a “√” on the outside. However, we found that only 50% of the screening tools were completely filled out (all ten questions addressed), and actually the question most likely skipped was the domestic violence question. At our meeting on Wednesday when we asked for feedback from providers, we found that they didn’t feel comfortable asking about domestic violence when the husband was in the examination room.

Act: (next step)

1. Develop and implement new policy on when to allow family members in the examination room. Consider policy of ten minute “lag time,” or special room where mom would be brought to without family.



Changing Our Approach to Domestic Violence – One Practice’s Experience

We made a card about domestic violence that’s handed out to all new OB patients as they walk into the bathroom. The patient reads the card when she does her first urine sample, and then she hands it back through a little window with the urine. The nurse looks at it, and gives it to the provider if there’s a problem.

Doing it privately is important for the woman’s safety. She knows what will tick off her abusive partner and is simply being wise to deny abuse if he’s sitting there next to her – because when they walk out of the office, there’s nobody to protect her.

I’ve noticed a change not just in the providers, but also in the nursing and support staff. They’re more aware of clues to domestic violence. The staff put the patient in the exam room. They are the ones who may see the spouse ranting and raving or making derogatory remarks to the woman. It’s a clue for them to say to the provider, “I’ve got some concerns here. This man’s ranting and raving, and I’m wondering what the bruise on her arm is from.”

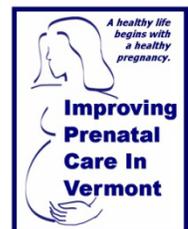
It’s important to let each patient know that domestic violence is a concern of ours – that we know it happens, and we’re here to support her if she needs anything. What she wants to do with that information is totally up to her. If every prenatal patient knows that domestic violence is an issue and that it increases in pregnancy, then they can tell their girlfriends. That’s an important step.

(OB/GYN, Academic Centre)

Improving Prenatal Care in Vermont

Best Practice Provider Toolkit

Depression



Depression Improvement Checklist

According to a joint report of the American College of Obstetricians and Gynecologists and the American Psychiatric Association, between 14 and 23 percent of pregnant women will experience depressive symptoms while pregnant. Identifying depression in pregnant women can be difficult because its symptoms mimic those associated with pregnancy such as changes in mood, energy level, appetite and cognition. Depressed women are more likely to have poor prenatal care and pregnancy complications such as nausea, vomiting and pre-eclampsia, and the use of drugs, alcohol and/or nicotine.

*We have always screened people for depression in the first trimester. The collaborative gave us the awareness and helped us tweak our system to re-screen in each trimester.
(Midwife, rural OB practice)*

*You see postpartum depression in people who come into the office after five or six weeks. By that time, you may have missed the crisis. We now contact everyone by telephone... two weeks post partum. We do it here with a telephone call, so at least we have contact with them.
(OB/GYN, rural practice)*

Assessment

- Conduct universal screening at first prenatal visit. Hand out a wallet card listing the signs and symptoms of postpartum depression to their significant others (if available), regardless of outcome of screening.
- Use validated screening tools:
 - The Postpartum Depression Predictors Inventory (PDPI) for antenatal period
 - Edinburgh Postpartum Depression Scale for antenatal and/or postpartum

Intervention

- If positive, use the in-depth self assessment questionnaire (can use “*Psychosocial Combined Clinical Tool – PDPI Self Assessment*” located in the “Psychosocial/Behavioral” section of the toolkit)
- Consider referral to a mental health specialist or a community mental health center
- Maintain ongoing consultation between patients’ prenatal care provider and her psychiatric care provider
- Be aware of the risks, benefits and interactions, and duration of psychotropic medications your patient may be on and recommendations if your patient is intending to breastfeed while taking these medications

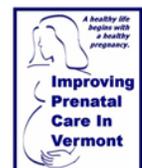
Follow up

- Re-screen during the second and third trimester (can use “*Psychosocial Combined Clinical Tool – Psychosocial/Behavioral Screening Questions*” also located in the “Psychosocial/Behavioral” section of the toolkit); inquire about referral and treatment progress
- Screen for postpartum depression by 2 weeks (“*Edinburgh Postnatal Depression Scale*” or “*CES-D*”, located in this section). As the 2 week period after birth is the peak time period for postpartum psychosis, postpartum follow-up for depression should occur as some form of contact, i.e. by telephone or well-baby visit, within that 2 week period. Contact is important, so if a visit is not possible, a phone call should be placed. Contact should occur again for the traditional postpartum assessment visit by 6 weeks. A log sheet to help track postpartum phone calls and visits is available in this section

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

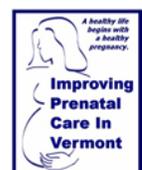
- Was this patient screened for depression at the 1st prenatal visit?



- If not previously identified, is there documentation of at-risk screening or assessment for depression in the second and third trimesters?
- If 'at-risk', did patient receive in-house counseling, referral for treatment or counseling?
- Is there documentation that the patient received in-house counseling, treatment/counseling as referred?
- If identified, is there documentation of progress and reaction to treatment?
- During the past month, how many patients who were due for a 2 week postpartum follow-up received a phone call?
- During the past month, how many women were due for a six weeks postpartum visit?
- Of those due for a postpartum visit, how many presented for the appointment by 8 weeks?

Resources and References

- <http://www.postpartumdads.org>
- Postpartum Support International (PSI): (800) 944-4773. Accessed June 2, 2011. www.postpartum.net
- <http://www.nlm.nih.gov/medlineplus>
- Muzik, M., Marcus, S. M., Heringhausen, J. E., & Flynn, H. (2009). When depression complicates childbearing: guidelines for screening and treatment during antenatal and postpartum obstetric care. *Obstetrics and Gynecology Clinics of North America*, 36(4), 771-788.
- Yonkers, K. A., Wisner, K. L., Stewart D. E., Oberlander, T. F., Dell, D .L., Stotland, N., Ramin, S., et al. (2009). The management of depression during pregnancy: a report from the American Psychiatric Association and the American College of Obstetricians and Gynecologists. *Obstetric & Gynecology*, 114, 703-713. Available at: http://journals.lww.com/greenjournal/Citation/2009/09000/The_Management_of_Depression_During_Pregnancy_A.44.aspx
- Moretti, M. E. (2009). Psychotropic medications and Lactation. *Canadian Journal of Pharmacology*, 16(1), e49-e57. www.cjcp.ca/cjcp08046-e49-e57_moretti-r101735
- Kohen, D. (2005). Psychotropic medications and breastfeeding. *Advances in Psychiatric Treatment*, 11, 371-379. <http://apt.rcpsych.org/cgi/reprint/11/5/371.pdf>
- Hale, T. (2010). *Medications and Mother's Milk*. 14th Edition. Hale Publishing. Amarillo, TX.



Signs and Symptoms of Postpartum Depression Wallet Card Template

You Can Help Me

By being aware and watch for

Signs & Symptoms of Postpartum Depression

Talk to me and talk to my doctor

Symptoms may include:

- Sluggishness, fatigue, exhaustion
- Sadness, depression, hopelessness
- Appetite and sleep disturbances
- Poor concentration, confusion
- Memory loss
- Over-concern for the baby
- Uncontrollable crying, irritability
- Guilt, inadequacy, worthlessness
- Lack of interest in the baby
- Fear of harming the baby or yourself
- Fear of losing control or "going crazy"
- Exaggerated highs and/or lows
- Lack of interest in sex
- Insomnia
- Intrusive thoughts



The Edinburgh Postnatal Depression Scale has been developed to assist primary care health professionals to detect mothers suffering from postnatal depression; a distressing disorder more prolonged than the "blues" (which occur in the first week after delivery) but less severe than puerperal psychosis. Previous studies have shown that postnatal depression affects at least 10% of women and that many depressed mothers remain untreated. These mothers may cope with their baby and with household tasks, but their enjoyment of life is seriously affected and it is possible that there are long-term effects on the family.

The EPDS was developed at health centers in Livingston and Edinburgh. It consists of ten short statements; the mother is to underline which of the four possible responses is closest to how she has been feeling during the past week. Most mothers complete the scale without difficulty in less than 5 minutes.

The validation study showed that mothers who scored above threshold 92.3% were likely to be suffering from a depressive illness of varying severity. Nevertheless the EPDS score should not override clinical judgment. A careful clinical assessment should be carried out to confirm the diagnosis. The scale indicates how the mother has felt during the previous week and in doubtful cases it may be useful to repeat after 2 weeks. The scale will not detect mothers with anxiety neuroses, phobias or personality disorder.

Instructions for health care providers:

1. The mother is asked to underline the response which comes closest to how she has been feeling in the previous 7 days.
2. All ten items must be completed.
3. Care should be taken to avoid the possibility of the mother discussing her answers with others.
4. The mother should complete the scale herself, unless she has limited English or has difficulty with reading.
5. The EPDS may be used at 6-8 weeks to screen postnatal women. The child health clinic, postnatal check-up or a home visit may provide suitable opportunities for its completion.

Response categories are scored 0, 1, 2, and 3 according to increased severity of the symptoms. Reverse scoring must be done on items 3 & 5, and 6-10. The total score is calculated by adding together the scores for each of the ten items.

Users may reproduce the scale without further permission providing they respect copyright by quoting the names of the authors, the title and the source of the paper in all reproduced copies.

Scoring the EPDS Screening Tool

The total score is determined by adding together the scores for each of the 10 items. Validation studies have utilized various threshold scores in determining which women were positive and in need of referral. Cut-off scores ranged from 9 to 13 points. Therefore, to err on safety's side, a woman scoring 9 or more points or indicating any suicidal ideation – that is she scores 1 or higher on question #10 – should be referred immediately for follow-up. Even if a woman scores less than 9, if the clinician feels the client is suffering from depression, an appropriate referral should be made. The EPDS is only a screening tool. It does not diagnose depression – that is done by appropriately licensed health care personnel.

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 150,782-786.

Wisner, K. L., Parry, B. L., and Piontek, C. M. (2000). Postpartum Depression. *New England Journal of Medicine*, 347(3), 194-199.



Name: _____ Baby's Age: _____
Address: _____

As you have recently had a baby, we would like to know how you are feeling. Please UNDERLINE the answer which comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

- | | |
|--|--|
| <p>1. I have been able to laugh and see the funny side of things.</p> <p>As much as I always could Not quite so much now Definitely not so much now Not at all</p> | <p>6. Things have been getting on top of me.</p> <p>Yes, most of the time I haven't been able to cope at all Yes, sometimes I haven't been coping as well as usual No, most of the time I have coped quite well No, I have been coping as well as ever</p> |
| <p>2. I have looked forward with enjoyment to things.</p> <p>As much as I ever did Rather less than I used to Definitely less than I used to Hardly at all</p> | <p>7. I have been so unhappy that I have had difficulty sleeping.</p> <p>Yes, most of the time Yes, sometimes Not very often No, not at all</p> |
| <p>3. I have blamed myself unnecessarily when things went wrong.</p> <p>Yes, most of the time Yes, some of the time Not very often No, never</p> | <p>8. I have felt sad or miserable.</p> <p>Yes, most of the time Yes, quite often Not very often No, not at all</p> |
| <p>4. I have been anxious or worried for no good reason.</p> <p>No, not at all Hardly ever Yes, sometimes Yes, very often</p> | <p>9. I have been so unhappy that I have been crying.</p> <p>Yes, most of the time Yes, quite often Only occasionally No, never</p> |
| <p>5. I have felt scared or panicky for not very good reason.</p> <p>Yes, quite a lot Yes, sometimes No, not much No, not at all</p> | <p>10. The thought of harming myself has occurred to me.</p> <p>Yes, quite often Sometimes Hardly ever Never</p> |

Providers refer to the previous page for scoring instructions.

Source: Cox, J.L., Holden, J.M., and Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 150, 782-786



The Ties that Bind Smoking to Depression

By Debra A. Mayer, Posted: Friday, January 1, 1993

ARTICLES, Publication Date: January 1, 1993

Most of us have either witnessed or experienced first hand the incredible hold of cigarette dependence. Surprisingly, we see that some people are able to quit "cold turkey," while others remain chained to their addiction after countless attempts to quit. We are astounded when family members, friends or co-workers return to their habit months after having apparently quit.

Obviously, the addiction to smoking cannot easily be explained. Why are some individuals able to quit on their own while others are unable to quit using any of the known smoking cessation techniques? To say that people smoke merely to relieve their physical need for a nicotine "fix" is to ignore the multifaceted behavioral component of addiction. (Those who return to smoking after a long period of abstinence have already passed the phase of nicotine withdrawal.)

Researchers are currently trying to understand the complicated puzzle of addiction. Recent studies indicate that depression may be a missing link in understanding this chain of dependence. Although there is a mountain of evidence indicating a relationship between major depression and drug abuse, this relationship has generally not extended to nicotine dependence. Several studies, however, now reveal an association between smoking and depression.

How was the association between smoking and depression found?

Dr. Alexander Glassman, a psychiatrist investigating smoking behavior, and his fellow researchers at Columbia Presbyterian Medical Center, conducted a study testing the effectiveness of the drug clonidine as an aid in smoking cessation. Previous studies had determined that Clonidine diminished alcohol and other drug withdrawal symptoms, so researchers wished to determine if the drug could also reduce the withdrawal symptoms experienced by heavy cigarette smokers. The subjects included in the study smoked an average of at least one pack per day and had made at least one previous attempt to stop smoking.

At the end of the study the researchers discovered that an unexpectedly high number of study subjects (61 percent) had a history of major depressive symptoms. "Major depression," in contrast to the frequent "low" periods that all of us tend to experience, is characterized by a persistent mood disturbance, sometimes lasting months, and a series of associated symptoms. Researchers were particularly interested in this connection because the subjects with a history of major depression had significantly lower rates of success in their attempts to stop smoking than individuals without such a prior diagnosis. Depression could be an added obstacle in the difficult process of quitting.

Although the results of this initial study were intriguing, they required replication in a large randomly selected sample of smokers. The previous study had been conducted among individuals who were enrolled in smoking clinics and had experienced past failures at quitting. Both of these factors may have contributed to the elevated number of subjects with a history of depressive symptoms. Researchers needed to accumulate population-based data to provide conclusions applicable to the general public.

The St. Louis Epidemiologic Catchment Area Survey of the National Institute of Mental Health was planned to specifically assess smoking behavior and psychiatric illness. The study provided the researchers with some of the results that they were looking for: Individuals who had ever smoked daily for at least one month were more than twice as likely to have experienced a major depressive episode as individuals who had never smoked. Furthermore, the study showed that a similar association between cigarette smoking and other psychiatric disorders was lacking. Cigarette smoking was apparently uniquely linked to major depression.

From the St. Louis Survey data, one cannot assume that depression is related to smoking in all cases. In fact, 91 percent of smokers do not have a history of major depression. However, there are a statistically significant number of smokers in which a connection between smoking and depression is evident.

Having obtained this data, the researchers now sought to find reasons for such an association. There are many theories currently under investigation:

Personality may predispose the smoker to depression

The personality of the smoker plays an important role in understanding the behavioral component of addiction. Studies done among adolescents reveal most strikingly how negative moods can play an essential role in the initiation and development of a smoking habit.

Adolescents who are more depressed, anxious or have lower self-esteem may smoke to feel better or "fit in" with their peers. In one study of the initiation of smoking among seventh graders, researchers discovered that youths who had experienced a major negative life event (such as moving, a parent suffering a life-threatening illness or a death in the family) during the previous year were more likely to take up smoking.

In another study among adolescents, researchers found that teenagers may smoke to alleviate the stress associated with these painful growing years. Teenagers who tended to smoke had fewer coping resources at their disposal. They may have used cigarettes as a form of stress management. The smokers in this study, as in the others, had lower self-esteem.

Most adult smokers begin smoking as teenagers and are then unable to quit. One may then conclude that if adolescents begin smoking due to a feeling of lack of self-worth, these emotions can mature and fester in the psyche of an adult addict. For example, the negative self-image of an adult smoker can result from a lifetime spent confronting the known health consequences of their addictive habit. Smoking despite in the face of this knowledge can be construed as self-destructive behavior. All these self-destructive tendencies are in keeping with the guilt and negative self-image associated with depression.

Smokers who fail in their attempts to quit are particularly susceptible to these recurrent negative feelings. As they become further enslaved by their addiction, they may experience the sense of failure and helplessness often associated with depression. Possibly, the trait that makes a person unable to quit smoking is the same personality element that makes them more vulnerable to depression. The link between depression and smoking develops, it seems, as a cycle that feeds on its own negativity. The smoker feels out of control over his or her health while still remaining chained to the agent that causes this lack of control: the cigarette.

A genetic link may exist between smoking and depression

Each individual is a result of both behavioral and genetic influences. Researchers have begun to test the many ways that genetics play a role in smoking addiction.

The possibility that there are important genetically determined differences in people's susceptibility to drug use is supported in numerous studies. Since nicotine is now recognized as an addictive drug, it follows that individuals may also differ in their nicotine susceptibility. Studies conducted with twins offer the most compelling evidence of genetic influences. In a recently published report in *The New England Journal of Medicine*, Dr. Dorit Carmelli and fellow researchers at the Health Sciences Program in Menlo Park, California, discovered moderate genetic influences on lifetime smoking practices. The data also suggest genetic influences on the ability to quit smoking.



Dr. Kenneth S. Kendler, a psychiatric geneticist at the Medical College of Virginia, is conducting studies among fraternal and identical twins. He seeks to assess more specifically the genetic interrelatedness of smoking and depression. Dr. Kendler's results thus far support the idea of a genetic connection: He has found that "some genetic factor tends to account for nicotine dependence and depression appearing so often in the same individual."

These researchers are among the pioneering investigators of this intriguing connection. More studies need to be conducted in order to understand more fully how genes come into play in determining smoking behavior and its link to depression.

Nicotine: A drug used to relieve depression?

Nicotine has been implicated as the primary culprit in the physical dependence on cigarettes. Currently under investigation is whether smokers use this potent drug to self-medicate their depression.

Nicotine, unlike heroin or cocaine, is not associated with a feeling of complete "euphoria." David Krogh, in his novel *Smoking: The Artificial Passion* discusses the unique appeal of nicotine. Cigarettes, while not making the smoker completely "blissed-out," may act as a mild stimulator or tranquilizer. Mr. Krogh states that the average person might find it more attractive to be slightly rather than dramatically altered by a drug. Nicotine enables the smoker to remain useful and functional during a normal day.

Once smokers develop the routine of using nicotine as an aid to altering their mood states, they may also grow to depend on the drug as a tool for "dysphoria-avoidance." Nicotine, while not necessarily making people "high" may make them "normal," or what David Krogh defines as a state of "psychological neutrality." In individuals prone to depression, such a neutral emotional state is highly desired and, perhaps, only achieved through the use of drugs. Nicotine dependence in the smoker with a history of depression may be particularly difficult to combat.

Depression hampers smoking cessation

When an individual attempts to quit smoking, mood changes are one symptom of tobacco withdrawal. For individuals who are currently depressed or are more susceptible to depressive symptoms, such mood disturbances may be more severe.

These factors may help explain why smoking cessation success rates are significantly lower among individuals with a history of major depressive symptoms. When such individuals make the decision to fight their addiction, they need to address an added psychological burden. Many smoking cessation programs seem to expect the smoker to conform to a "cookie-cutter" approach to quitting when, what is needed is a "tailor-made" approach, specially adapted to each individual smoker's needs. If health care providers take the time to get to know the reasons for an individual's addiction, perhaps they can expect to see greater success in their smoking cessation programs.

Debra A. Mayer, M.P.H., is a research associate in epidemiology at the American Council on Science and Health.

(From Priorities, Vol 5, No.1)

This information was found online at:

http://www.acsh.org/healthissues/newsID.815/healthissue_detail.asp



Postpartum Follow-Up – Impacting Patients through an Office System Change

The collaborative made us aware that we really need to do postpartum phone calls. Everyone is called and assessed for postpartum depression – usually three days after they're home. Using the tools from the notebook, we've picked up many more postpartum depression cases. It's been very helpful to have a checklist, so the nurses can check off things when they're asking the questions.

When you start any new process, it's difficult and no one wants to do it. And then they see that patients are happy with the process, which compels them to be more dutiful about it. It does take extra time, but we've learned to integrate it into our day.

It gave us a way to track patients postpartum, which we hadn't been doing until their postpartum check-up. Because we were calling patients, it also made them aware that they could call us. I've had husbands call and say, "She's not making it. She's not eating. She's not sleeping." Then we make an additional call, and most of those cases require a home visit from one of us as well.

It opened up the door for a lot more of an exchange about situations and problems. Sometimes all they've needed is a phone call to talk about it. We followed up a week later and they were fine – but some have needed massive counseling, and that also was good to identify. It's made a huge impact on what happens with mother/baby bonding.

(Midwife, urban OB/GYN practice)



Postpartum Tracking Grid

Postpartum Tracking Grid Month:

| | | | |
|----------------------------------|--|---|--|
| Due for two week postpartum call | | Due for six week postpartum appointment | |
| Status: | CA= call made, no answer, will try again | Status: | AS= appointment scheduled for this week |
| Result: | CC= call complete NC=several attempts, unable to complete | Result: | AC= appointment complete NA= scheduled for this week, no show |

| Patient ID | Week 1 _____ | | Week 2 _____ | | Week 3 _____ | | Week 4 _____ | | Week 5 _____ | |
|------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| | Due for Call | Due for Appt. |
| | Status: _____ Result: _____ |
| | Status: _____ Result: _____ |
| | Status: _____ Result: _____ |
| | Status: _____ Result: _____ |
| | Status: _____ Result: _____ |

Created by Improving Prenatal Care in Vermont, Vermont Child Health Improvement Program, Burlington, VT 2004. Last reviewed 2011.

advances

in psychiatric treatment

journal of continuing professional development

Psychotropic medication and breast-feeding

Dora Kohen

Adv. Psychiatr. Treat. 2005 11: 371-379

Access the most recent version at doi:[10.1192/apt.11.5.371](https://doi.org/10.1192/apt.11.5.371)

**Reprints/
permissions**

To obtain reprints or permission to reproduce material from this paper, please write to permissions@rcpsych.ac.uk

**You can respond
to this article at**

<http://apt.rcpsych.org/cgi/eletter-submit/11/5/371>

**Email alerting
service**

Receive free email alerts when new articles cite this article - sign up in the box at the top right corner of the article or [click here](#)

**Downloaded
from**

apt.rcpsych.org on June 16, 2011
Published by [The Royal College of Psychiatrists](#)

Psychotropic medication and breast-feeding

Dora Kohen

Abstract Adverse effects of psychotropic medication on breast-fed infants have not been studied in controlled and systematic research. Existing information comes from small case series and single case reports. These limited data confirm that psychotropics are excreted into breast milk and that the infant is exposed to them. In recent decades sufficient data have accumulated to allow psychiatrists to prescribe tricyclic antidepressants, selective serotonin reuptake inhibitors, conventional antipsychotics, carbamazepine and sodium valproate to breast-feeding mothers with safety. There are not sufficient data on atypical antipsychotics to allow women to breast-feed safely. Mothers on clozapine or lithium should not breast-feed. It is good practice to recommend that breast-feeding mothers requiring psychotropic medication be on a low dose of one single drug. Future research taking account of maternal mental health, psychopharmacological factors, infant physiological environment and individualised risk/benefit assessment will yield clearer responses to this complex issue.

The physical and psychological benefits of breast-feeding for the mother and the infant are numerous and range from improved and stronger bonding to better immunological protection. Breast-fed infants have fewer episodes of middle-ear and urinary tract infections and lower mortality rates than bottle-fed babies (Nulman *et al*, 2003). Breast milk contains nucleotides and enzymes that promote digestion and absorption of nutrients. Breast-feeding has been associated with better cognitive functioning and better performance on IQ measures at age 7–8 years (Fergusson *et al*, 1982; Lucas *et al*, 1992).

For the mother, breast-feeding causes oxytocin and prolactin release, precipitates postnatal uterine involution and suppresses ovulatory cycles.

Breast-feeding has been successfully promoted in recent decades and a significantly large group of women now believe in its benefits and enquire about the possibilities of breast-feeding even when they are on psychotropic medication. It is the duty of the prescribing psychiatrist to guide the mother, the carers, the community mental health team, the general practitioner (GP), the obstetricians and the paediatricians through the intricacies of this complex area of psychopharmacology, in which there is an increasing interest but only scant research, few case studies and limited publications.

Pharmacokinetics of psychotropics in breast milk

Researchers need information on four factors in order to understand problems related to breast-feeding by mothers taking psychotropic medication: the prescribed dose; the level of the drug in the mother's blood plasma; the level in the breast milk; and the levels in the infant's serum. The amount of drug excreted in the milk is important in evaluating any drug-induced toxicity in the infant.

The medication's diffusion across membranes, its molecular weight and its lipophilicity each play an important role in determining the amount that enters the breast milk (Nulman *et al*, 2003).

The milk that comes out towards the end of a feed (hind milk) has a higher concentration of lipids than the thinner foremilk. Consequently, hind milk will contain a greater concentration of any lipid-soluble drug. Colostrum, produced only during the first few days after birth, has a higher protein level and will therefore contain a greater concentration of protein-bound drugs.

To evaluate infant exposure to a drug the concentration of the medication or its metabolite are measured simultaneously in the mother's plasma and breast milk. A milk/plasma ratio greater than 1

Dora Kohen is Professor of Women's Mental Health at the Lancashire Postgraduate School of Medicine and Health (Leigh Infirmary, Leigh, Lancashire WN7 1HS, UK. E-mail: dorakohen@doctors.org.uk) and a consultant psychiatrist in perinatal psychiatry in Lancashire. Her interests are psychiatric services for women, and motherhood and severe mental illness.

suggests a high likelihood that the infant will be exposed to the drug (Suri *et al*, 1998). However, it is important to note that a milk/plasma ratio calculated on one single occasion and independent of other risks may not be sufficiently significant. There are other important factors such as the drug's dosage and frequency, its pharmacodynamics and pharmacokinetics, and the timing of the dose in relation to the infant's feeding patterns. Taking several measurements at different times of the day may provide a better picture.

Infants metabolise medication transmitted via breast milk, but this varies with each individual. Preterm immature infants are more sensitive and may have immature liver function, and they should therefore not be exposed to any psychotropic medication through the breast milk.

The infants' hepatic, cardiac and renal functions should be checked before they are breast-fed by mothers treated with psychotropics.

The infant's stage of development influences the effects of exposure. Most full-term infants have decreased capacity for drug metabolism until the third week of life. Drug metabolism gradually increases, so that by the 8th to the 12th weeks of life the rate is several times faster than in adults. It later decreases, eventually reaching the adult level of metabolism by puberty (Wisner *et al*, 1996).

Maximum maternal dosages that will definitely have no effect on the infant have not been established for any psychotropics. Therefore it is not possible to advise on acceptable milk/plasma ratios or safe doses. Likewise, treatment doses below which there are no clinical adverse effects or longitudinal side-effects in the infant have also not been identified. Nevertheless, for psychotropics the arbitrary concentration in the infant's plasma of 10% of the established therapeutic maternal dose is used as the upper threshold where the risks of a particular drug's side-effects are low and treatment is accepted as safe (Bennett, 1996; Nulman *et al*, 2003).

If a mother on psychotropics is breast-feeding, the newborn should be systematically monitored for any possible adverse effects such as drowsiness, hypotonia, rigidity, tremor and withdrawal symptoms.

Follow-up of the infant's progress and milestones is important for the recognition of any side-effects (Box 1).

Antidepressants

Maternal distress and untreated depression adversely affect the infant and later the child (Orr & Miller, 1995).

As far as we can ascertain, antidepressants are secreted in breast milk in very small quantities. Evidence for tricyclic antidepressants (except

Box 1 The follow-up of infants exposed to psychotropic medication

- The newborn's health should be taken into consideration when planning breast-feeding
- Preterm immature infants should not be exposed to psychotropics
- Infants' hepatic, renal and cardiac functions should be checked before they are breast-fed by mothers on psychotropic medication
- Infants older than 10 weeks are at a lower risk for adverse effects of tricyclics and there is no evidence of accumulation in the infant
- The newborn should be examined regularly for any possible adverse events of medication
- All professionals involved in the care of the infant should be informed of psychotropic medication usage

doxepin) and for selective serotonin reuptake inhibitors (SSRIs) shows that there is no clinical indication for women treated with either to stop breast-feeding, provided that the infant is healthy and its progress monitored.

Nevertheless the levels of all antidepressants in exposed infants are not well studied. The few publications are mainly case studies and small series. Research on the subject is limited and most studies do not have the necessary power to support categorical guidelines.

Tricyclic antidepressants

Studies of tricyclic antidepressants in breast-feeding have shown that drug concentration in breast milk is approximately the same as that in maternal plasma. However, the steady-state maternal plasma concentration has been accepted as a better reflection of the degree of exposure of the infant (Atkinson *et al*, 1988). Several studies of tricyclics have shown that neither the drugs nor their metabolites accumulated in breast-fed infants (Wisner & Perel, 1996a). However, these were short-term studies and there has been no research on infants' long-term exposure to very low doses; this needs further investigation in longitudinal studies.

When advising a mother on breast-feeding while taking an antidepressant, a full risk/benefit analysis should be undertaken.

Amitriptyline

Several studies (e.g. Bader & Newman, 1980; Brixen-Rasmussen *et al*, 1982) of drug levels in infant serum

while their nursing mothers were taking therapeutic doses of amitriptyline found no detectable amitriptyline in the infants. There were no signs of adverse effects or side-effects either.

Imipramine

It has been shown that imipramine and its active metabolite desipramine produce breast-milk concentrations similar to maternal plasma levels. However, significant serum levels were not detected in the infant (Stancer & Reed, 1986). Infants breast-fed by mothers on imipramine were observed over a 2-year period and did not show any adverse effects of the drug (Misri & Sivertz, 1991).

Clomipramine

Schimmell *et al* (1991) studied drug plasma levels in a breast-fed infant whose mother had taken clomipramine during pregnancy and continued after giving birth. They found that levels were high following delivery but decreased gradually and were at the lowest detectable concentration at 35 days, even though breast-feeding continued. Clomipramine has been used by breast-feeding mothers without adverse effects on the newborn.

Nortriptyline

Wisner & Perel (1991) studied serum in breast-fed infants whose mothers were on therapeutic doses of nortriptyline and found no detectable nortriptyline or its 10-hydroxy metabolites and no adverse effects. Even when blood was taken shortly after peak maternal plasma levels there was no detectable drug or adverse event in the infants.

Doxepin

Doxepin has a longer-acting metabolite N-desmethyldoxepin that may accumulate in infants, causing severe drowsiness and respiratory depression. There has been a near fatality in the 8-week-old baby of a mother taking 75 mg/day (Matheson *et al*, 1985), but Wisner *et al* (1996) report no similar incidents with therapeutic doses of doxepin.

Nulman *et al* (2003), in their comprehensive chapter on antidepressants and breast-feeding, summarise two publications that report single cases of breast-fed infants exposed to doxepin. The concentration of doxepin and its metabolite were low in breast milk. However, one infant was sedated with depressed respiration whereas the other showed no adverse effects. Metabolic differences between infants might explain these observations.

Which tricyclic?

In view of the above, if tricyclic antidepressants need to be prescribed for breast-feeding women, amitriptyline and imipramine are the preferred choices.

Trazodone

Trazodone appears to be of lower risk because only 1% passes into the milk, although drowsiness and poor feeding have been reported. Data are limited to a few cases and caution is advised in use of the drug.

Selective serotonin reuptake inhibitors

Fluoxetine

Several authors report on infants breast-fed by mothers taking fluoxetine (Yoshida *et al*, 1998; Nulman *et al*, 2003). Fluoxetine and its active metabolite norfluoxetine were detected in all samples of maternal plasma and breast milk but their levels in infants' plasma and urine were below the lower limits of detection. All infants were developing normally and showed no abnormal findings on neurological examination (Yoshida *et al*, 1998). The mean combined dose of fluoxetine and norfluoxetine in the infants was below the notional 10% level of concern (Taddio *et al*, 1996). Maternal levels of the medication correlated highly with the fluoxetine and norfluoxetine concentration in the infants and a maternal dose of 20 mg/day was not associated with detectable infant levels (Hale *et al*, 2001). However, it is important to note that inter-patient variability in these studies was quite significant.

There are also single case reports of breast-fed infants of mothers on higher doses showing side-effects such as irritability, cyanosis, somnolence, fever, hypotonia and unresponsiveness (Lester *et al*, 1993; Nulman *et al*, 2003). But the general understanding is that although such infants may have gained less weight, they showed no clinical symptoms and did not have cognitive dysfunction when assessed with a standardised development scale (Yoshida *et al*, 1998; Chambers *et al*, 1999).

Nevertheless, close monitoring of the mother and the infant and regular examination for possible side-effects are necessary. It is also important to alert carers and professionals involved to the possible adverse effects.

Sertraline

A relatively larger sample of infants breast-fed by mothers on sertraline has been studied. Some authors

report that levels of the drug in the infants' serum were undetectable (Altshuler *et al*, 1995; Stowe *et al*, 1997). Others found undetectable levels in serum or levels of sertraline and its active metabolite desmethylsertraline of less than 10 ng/ml (Altshuler *et al*, 2001). Epperson *et al* (2001) studied serotonin (5-HT) transport in nine pairs of mothers and infants and concluded that at clinical doses of sertraline, platelet 5-HT uptake in nursing infants was unaltered and mothers taking sertraline could breast-feed without appreciably affecting peripheral or central 5-HT transport in their infants.

In view of the larger samples, undetectable serum levels of sertraline and cumulative research evidence indicating no significant adverse effects on the infant, this medication has been recommended in the USA as the first-line treatment for breast-feeding mothers (Altshuler *et al*, 2001).

Paroxetine

The concentration of paroxetine in breast milk is similar to that in the mother's plasma (Kaye *et al*, 1989). Less than 1% of the steady state concentration in maternal plasma is transferred to the breast-fed infant, and this amount causes no adverse effects (Duncan & Taylor, 1995). Evidence shows that paroxetine has a lower milk/plasma ratio than fluoxetine and sertraline (Misri *et al*, 2000). Merlob *et al* (2004) studied 27 mothers taking paroxetine while breast-feeding, comparing them with a control group. They found no notable adverse events and the infants reached milestones at similar ages. They advised the lowest possible single bedtime dose for the mothers and regular clinical follow-up of the infants.

Citalopram

Citalopram concentration in breast milk has been studied in smaller samples and the milk/plasma

ratio has been found to be relatively high, as is the calculated infant dose (Jensen *et al*, 1997; Spigset *et al*, 1997; Schmidt *et al*, 2000). None of the infants studied displayed detectable levels of citalopram or its metabolite, but possible symptoms such as somnolence, restlessness and irritability have been attributed to maternal citalopram intake. However, Lee *et al* (2004a), in their prospective observational cohort, studied the frequency of adverse events in 31 infants exposed to maternal citalopram through breast-feeding. Citalopram was found to be safe and there were no statistically significant adverse events or any developmental problems.

At the time of publication, there were no reports on escitalopram use during breast-feeding.

Venlafaxine

Ilett *et al* (1998) have studied the levels of venlafaxine and its metabolites in breast milk and in exposed infants at different times during the first 8 months of life. Although venlafaxine accumulated in breast milk, infant plasma levels were only 3.2%. This is clearly below the notional 10% level of concern and therefore was accepted as undetectable. There were no adverse events or side-effects in any of the infants.

Mirtazapine, nefazodone and bupropion

There are no studies of mirtazapine, nefazodone or bupropion use during breast-feeding. Nevertheless, all three antidepressants bind to serum protein. All three have metabolites and therefore if used by breast-feeding mothers, infants should be monitored for potential side-effects (Heath & Yonkers, 2001).

Monoamine oxidase inhibitors

The side-effects of monoamine oxidase inhibitors (MAOIs) in adults are well documented, but no studies of their side-effects in infants have been published. Likewise, no cases of risk or damage caused to infants by MAOIs have been reported. Regardless of this lack of evidence of side-effects in infants, now that several new antidepressants are on offer psychiatrists should review their treatment plans and discontinue MAOIs in mothers planning to breast-feed.

Box 2 summarises key points regarding antidepressants and breast-feeding.

Conventional antipsychotics

In their comprehensive reviews, Yoshida *et al* (1999) and Burt *et al* (2001) have summarised the findings of the few reported cases involving breast-fed infants and conventional antipsychotics (chlorpromazine,

Box 2 Antidepressants and breast-feeding

- For women taking antidepressants the treatment strategy while breast-feeding has been clearly established
- Tricyclics such as amitriptyline, imipramine, nortriptyline and clomipramine are safe during breast-feeding
- SSRIs such as fluoxetine, sertraline, paroxetine and citalopram are safe during breast-feeding
- It is advisable to discontinue MAOIs, replacing them with a newer drug if necessary

trifluoperazine or perphenazine) and atypicals (clozapine or olanzapine). Only a few of those infants showed side-effects, such as drowsiness, lethargy and possible gastrointestinal complaints.

Yoshida *et al* (1997) studied 12 mothers who breast-fed while on haloperidol, chlorpromazine or trifluoperazine postnatally. It is important to note that none had received antipsychotics during pregnancy. The amount of the drug in their plasma correlated with the amount in breast milk. Very small amounts were detected in their infants' plasma and urine but no toxic effects were noted. High-potency antipsychotics have been recommended during breast-feeding because they cause less sedation and less autonomic effect (Wisner & Perel, 1996b).

In a haloperidol study, Whalley *et al* (1981) found that the concentration of the drug in the breast milk of nursing women was about two-thirds of that in their serum. Their infants showed no side-effects of the medication and no behavioural teratology.

Atypical antipsychotics

Olanzapine

Mothers breast-feeding while on olanzapine and their infants have been studied by Gardiner *et al* (2003). They concluded that infants exposed to olanzapine showed plasma levels much below the 10% level of concern. Mean infant exposure (mg/kg) at steady state was estimated to be 1.8% of the maternal olanzapine dosage (mg/kg). In the infants' plasma, olanzapine levels were below the detection limit and the babies showed no adverse effects. Although these limited data suggest that olanzapine is safe during breast-feeding, mothers are advised not to breast-feed while taking it and all decisions need to be made after detailed individual risk/benefit analysis.

Risperidone

Ilett *et al* (2004) studied the plasma levels of an infant breast-fed by a mother taking risperidone and showed that the relative infant dose was below the notional 10% level of concern. They concluded that maternal risperidone therapy is unlikely to be a significant hazard for breast-fed infants in the short term. However, the decision whether a woman may breast-feed should be made after individual risk/benefit analysis.

Quetiapine

Possible adverse effects of quetiapine have not been studied in breast-fed infants. Post-marketing

pharmacovigilance studies include no cases of a mother breast-feeding while on quetiapine. Safety considerations dictate that women taking the drug should be advised not to breast-feed because of limited experience with the agent. However, in a case reported by Lee *et al* (2004b) the level of infant exposure to quetiapine in breast milk appeared to be too small for significant pharmacological effects.

Clozapine

There are several reported cases of clozapine use during pregnancy and breast-feeding (Barnas *et al*, 1994; Dev & Krupp, 1995). Clozapine was clearly found to accumulate in breast milk and foetal serum. The higher concentration in foetal serum was explained by the higher concentration of albumin in foetal blood.

Dev & Krupp (1995) reported on four infants breast-fed by mothers receiving clozapine: two of the babies had no apparent adverse effects, one developed agranulocytosis but recovered spontaneously when breast-feeding was discontinued and the fourth became excessively sleepy.

Because of its obvious accumulation in breast milk, clozapine is one of the few psychotropics contraindicated during breast-feeding.

Amisulpride

There are no studies to demonstrate whether amisulpride is excreted in breast milk and whether it causes adverse events in the infant. Women should therefore be advised not to breast-feed while on amisulpride.

Information regarding breast-feeding while on antipsychotic medication is summarised in Box 3.

Box 3 Antipsychotics and breast-feeding

- Conventional antipsychotics have been used for decades and the accumulated data show that they are safe during breast-feeding
- New information is starting to emerge about some atypical antipsychotics such as olanzapine and risperidone but their safety has yet to be established
- There is currently no information on quetiapine and amisulpride and therefore it is not safe to expose newborns to these medications
- Clozapine accumulates in breast milk and is contraindicated during breast-feeding

Antimanic drugs

Lithium

Lithium salts are excreted into the breast milk at a level of 40–50% of maternal serum levels (Sykes *et al*, 1976). Infant serum levels are equal to breast milk levels and at times can rise to 200% of the maternal serum concentration. It is well documented that infants can develop several signs and symptoms of toxicity, including cyanosis and hypothermia, if breast-fed by mothers on lithium treatment (Chaudron & Jefferson 2000). Therefore lithium is contraindicated during breast-feeding.

Carbamazepine

Carbamazepine and its active metabolite are found in breast milk in significant quantities and the medication is generally detected in infant plasma. Infant serum carbamazepine levels range from 10 to 60% of maternal serum levels. Nevertheless, there is little evidence of adverse events in infants and little evidence for discontinuation of the drug by mothers taking it as an anti-epileptic (Yoshida *et al*, 1999) However, transient hepatic toxicity such as hyperbilirubinaemia and high concentrations of gamma-glutamyl-transferase have been reported in neonates exposed to carbamazepine during breast-feeding (Merlob *et al*, 1992). Caution should be exercised and a risk/benefit analysis carried out before mothers are allowed to breast-feed while on carbamazepine.

Sodium valproate

The concentration of valproate in the mother's milk is 3% or less than the maternal plasma levels (Nau *et al*, 1981). Neurologists who prescribe valproate for its anti-epileptic role advise mental health professionals to complete a detailed risk/benefit analysis before allowing the mother to breast-feed the infant. There are no reports of major adverse events in children breast-fed by mothers taking sodium valproate (Chaudron & Jefferson, 2000; Piontek *et al*, 2000).

Hypnotics and anxiolytics

Benzodiazepines

Benzodiazepines are addictive drugs and therefore should not be prescribed as anxiolytics or sedatives on a long-term basis. Women should not be started on benzodiazepines if they are breast-feeding. Ideally, women should be encouraged to stop taking these drugs before they become pregnant.

Benzodiazepines taken by the mother during pregnancy should be withdrawn with caution, as infants who have been under the influence of these drugs *in utero* may have acquired drug dependence and suffer withdrawal symptoms if the drugs are no longer available to them.

Benzodiazepines are excreted in breast milk at a low milk/plasma ratio (Yoshida *et al*, 1999). Cases of infants breast-fed by mothers on clonazepam or temazepam have shown no measurable drug levels in the infants' serum and no adverse effects were reported. Birnbaum *et al* (1999) analysed levels of psychotropics, including benzodiazepines, in breast-fed infants. In infants whose mothers were not on medication during pregnancy but started only after delivery, serum concentrations were below the laboratory limit of detection. Only in infants who were exposed to benzodiazepines during pregnancy could the medication be detected in their serum. These data support the low incidence of infant toxicity and adverse effects associated with benzodiazepine use during breast-feeding.

Nevertheless, repeated doses of long-acting benzodiazepines can produce lethargy, poor suckling and weight loss, and infants need to be monitored.

Others

Buspirone, zaleplon and zopiclone should all be avoided because they are excreted in breast milk (Bazire, 2003). Zopiclone in particular is contraindicated during breast-feeding as it is excreted in the milk at up to 50% of maternal plasma levels (Matheson *et al*, 1990), although a single dose may not cause accumulation.

Zolpidem is accepted as compatible with breast-feeding because of its low lipophilic properties and rapid excretion (Bazire, 2003).

Box 4 summarises the position for antimanics, hypnotics and anxiolytics in breast-feeding.

Risk/benefit analysis

Mental health professionals involved in the management of women's psychiatric problems during the perinatal period have to make an individualised risk/benefit analysis to advise each woman on medication while pregnant (Kohen, 2004) and the possibility of safe breast-feeding.

The first step in the analysis is to record details of the psychiatric condition, the severity and frequency of the problems, the level of family support, and the woman's general cooperation with treatment (previous attendance for appointments

Box 4 Antimanics, hypnotics and anxiolytics during breast-feeding

- Lithium is contraindicated during breast-feeding
- There is little evidence of adverse events in infants breast-fed by mothers taking carbamazepine or sodium valproate, although transient hepatic toxicity is possible with the former
- It is unsafe to expose infants to repeated doses of long-acting benzodiazepines through breast-milk
- Buspirone, zaleplon and zopiclone are contraindicated during breast-feeding
- Zolpidem is safe during breast-feeding

and adherence to medication regimens). A number of other factors are important: the reliability of informants, the level of understanding of early warning signs, good rapport with care coordinators and health visitors, and involvement of statutory and voluntary organisations. The amount of medication needed during the pregnancy and the need for monotherapy will play a role in the decision.

The physical health and maturity of the infant are clearly important. It is also essential that the mother should be well enough to look after her newborn and not go through a crisis and need hospitalisation. It may be more important to give the mother the amount and number of psychotropics necessary to keep her well in the community with her baby than to allow her to remain under-treated while breast-feeding. A healthier mother will be able to care for her bottle-fed newborn but an unwell mother will neglect her breast-fed infant.

Conclusions

It is quite clear from this overview that, given the limited data regarding breast-milk levels and serum concentrations of psychotropic medication in breast-feeding infants, it is difficult to reach a firm conclusion on the safety of breast-feeding (Box 5). And with the exception of clozapine and lithium salts, which are clearly contraindicated, no single agent seems to be of greater risk than others.

It is also well established that none of the drugs discussed above is established as being completely free of side-effects. Therefore all drugs should be viewed with caution before breast-feeding. Still,

there are documented differences between drugs within the same class and there is no class action in relation to breast-feeding.

All psychotropics are secreted into the breast milk but concentrations and effects can vary. The results of earlier clinical reports and case studies and the more recent studies with larger patient samples lead to the tentative conclusion that, for most psychotropics, low doses of a single drug are relatively safe during breast-feeding.

The decision to breast-feed must be made jointly by the mother, the family, the psychiatrist and the health visitor involved in the mother's psychiatric management. The benefits of breast-feeding for the mother and the infant should outweigh the risks of exposing the infant to small doses of the medication. Mothers who need to be on two or more psychotropics simultaneously or who have to take medication at the upper end of the recommended dose range should be advised not to breast-feed. Women on atypical antipsychotics are also advised not to breast-feed because of the paucity of experience with these medications. It is essential that infants are monitored by health visitors and paediatricians for any possible adverse events.

Breast-feeding while taking psychotropic medication is an important issue that has not received the attention it deserves. It is clear that there is very limited research and data on the subject and most of the information comes from a small number of studies based on a few cases or case reports. With the revived interest in perinatal psychiatry, I hope that there will be a revival of the subject and controlled and systematic research will be able to address some of the questions yet to be resolved.

Box 5 Key points

- The decision to prescribe antipsychotics to breast-feeding women should depend on individual risk/benefit analysis
- The current available research does not allow any absolute and clear recommendation because much of the work on psychotropic medication in breast-feeding is limited to single case reports, small series and naturalistic data collection
- Causes and consequences of different adverse events are not yet widely studied
- Non-psychiatric professionals, especially health visitors, need to be trained to recognise adverse events
- There is a need for further research and accumulation of experience

References

- Altshuler, L. L., Burt, V. K., McMullen, M., *et al* (1995) Breast feeding and sertraline: a 24 hour analysis. *Journal of Clinical Psychiatry*, **56**, 243–245.
- Altshuler, L. L., Cohen, L. S., Moline, M. L., *et al* (2001) *The Expert Consensus Guidelines Series: Treatment of Depression in Women*. Postgraduate Medicine Special Report. New York: McGraw Hill. <http://www.psychguides.com/ecgs6.php>
- Atkinson, H. C., Begg, E. J. & Darlow, B. A. (1988) Drugs in human milk: clinical pharmacokinetic considerations. *Clinical Pharmacokinetics*, **14**, 217–240.
- Bader, T. F. & Newman, K. (1980) Amitriptyline in human breast milk and nursing infant's serum. *American Journal of Psychiatry*, **137**, 855–856.
- Barnas, C., Bergant, A., Hummer, M., *et al* (1994) Clozapine concentration in maternal plasma, amniotic fluid and breast milk (letter). *American Journal of Psychiatry*, **151**, 945.
- Bazire, S. (2003) *Psychotropic Drug Directory*. Salisbury: Fivepin Publishing.
- Bennett, P. N. (1996) Use of the monographs on drugs. In *Drugs and Human Lactation* (ed. P. N. Bennett), pp. 67–74. Amsterdam: Elsevier.
- Birnbaum, C. S., Cohen, L. S., Bailey, J. W., *et al* (1999) Serum concentration of antidepressants and benzodiazepines in nursing infants: a case series. *Pediatrics*, **104**, e11.
- Brixen-Rasmussen, L., Halgrener, J. & Jorgensen, A. (1982) Amitriptyline and nortriptyline excretion in human breast milk. *Psychopharmacology (Berlin)*, **76**, 94–95.
- Burt, V. K., Suri, R., Altshuler, L., *et al* (2001) The use of psychotropic medications during breast-feeding. *American Journal of Psychiatry*, **158**, 1001–1009.
- Chambers, C. D., Anderson, P. O., Thomas, R. G., *et al* (1999) Weight gain in infants breast-fed by mothers who take fluoxetine. *Paediatrics*, **104**, 61.
- Chaudron, L. H. & Jefferson, J. W. (2000) Mood stabilizers during breast-feeding: a review. *Journal of Clinical Psychiatry*, **61**, 79–90.
- Dev, V. & Krupp, P. (1995) Adverse event profile and safety of clozapine. *Reviews in Contemporary Pharmacotherapy*, **6**, 197–208.
- Duncan, D. & Taylor, D. (1995) Which antidepressants are safe to use in breast-feeding mothers? *Psychiatric Bulletin*, **19**, 551–552.
- Epperson, N., Czarkowski, K. A., Ward-O'Brien, D., *et al* (2001) Maternal sertraline treatment and serotonin transport in breast-feeding mother–infant pairs. *American Journal of Psychiatry*, **158**, 1631–1637.
- Fergusson, D. M., Beautrais, A. L. & Silva, P. A. (1982) Breast-feeding and cognitive development in the first seven years of life. *Social Science and Medicine*, **16**, 1705–1708.
- Gardiner, S. J., Kristensen, J. H., Begg, E. J., *et al* (2003) Transfer of olanzapine into breast milk, calculation of infant drug dose, and effect on breast-fed infants. *American Journal of Psychiatry*, **160**, 1428–1431.
- Hale, T.W., Shum, S. & Grossberg, M. (2001) Fluoxetine toxicity in a breast-fed infant. *Clinical Pediatrics (Philadelphia)*, **40**, 681–684.
- Heath, A. C. & Yonkers, K. A. (2001) Somatic treatments in depression: concerns during pregnancy and breast-feeding. In *Management of Psychiatric Disorders in Pregnancy* (eds K. Yonkers & B. Little), pp. 82–104. London: Hodder Arnold.
- Ilett, K. F., Hackett, L. P., Dusci, L. J., *et al* (1998) Distribution and excretion of venlafaxine and O-desmethylvenlafaxine in human milk. *British Journal of Clinical Pharmacology*, **45**, 459–462.
- Ilett, K. F., Hackett, L. P., Kristensen, J. H., *et al* (2004) Transfer of risperidone and 9-hydroxyrisperidone into human milk. *Annals of Pharmacotherapy*, **38**, 273–276.
- Jensen, P. N., Olesen, O. V., Bertelsen, A., *et al* (1997) Citalopram and desmethylcitalopram concentration in breastmilk and serum of mother and infant. *Therapeutic Drug Monitoring*, **19**, 236–239.
- Kaye, C. M., Haddock, R. E., Langley, P. F., *et al* (1989) A review of the metabolism and pharmacokinetics of paroxetine in man. *Acta Psychiatrica Scandinavica Supplementum*, **350**, 60–75.
- Kohen, D. (2004) Psychotropic medication in pregnancy. *Advances in Psychiatric Treatment*, **10**, 59–66.
- Lee, A., Woo, J. & Ito, S. (2004a) Frequency of infant adverse events that are associated with citalopram use during breast-feeding. *American Journal of Obstetrics and Gynecology*, **190**, 218–221.
- Lee, A., Giesbrecht, E., Dunn, E., *et al* (2004b) Excretion of quetiapine in breast milk. *American Journal of Psychiatry*, **161**, 1715–1716.
- Lester, B. M., Cucca, J., Lynne, A., *et al* (1993) Possible association between fluoxetine hydrochloride and colic in an infant. *Journal of the American Academy of Child and Adolescent Psychiatry*, **32**, 1253–1255.
- Lucas, A., Morley, R., Cole, T. J., *et al* (1992) Breast feeding and subsequent intelligence quotient in children born preterm. *Lancet*, **339**, 261–264.
- Matheson, I., Panda, H. & Alertsen, A. R. (1985) Respiratory depression caused by N-desmethyldoxepin in breast milk (letter). *Lancet*, **2**, 1124.
- Matheson, I., Sande, H. A. & Gaillot, J. (1990) The excretion of zopiclone into breast milk. *British Journal of Clinical Pharmacology*, **30**, 267–271.
- Merlob, P., Mor, M. & Litwin, A. (1992) Transient hepatic dysfunction in an infant of an epileptic mother treated with carbamazepine during pregnancy and breast-feeding. *Annals of Pharmacotherapy*, **26**, 1563–1565.
- Merlob, P., Stahl, B. & Sulkes, J. (2004) Paroxetine during breast-feeding: infant weight gain and maternal adherence to counsel. *European Journal of Pediatrics*, **163**, 135–139.
- Misri, S. & Sivertz, K. (1991) Tricyclic drugs in pregnancy and lactation: a preliminary report. *International Journal of Psychiatry in Medicine*, **21**, 157–171.
- Misri, S., Kim, J., Riggs, K. W., *et al* (2000) Paroxetine levels in postpartum depressed women, breast milk and infant serum. *Journal of Clinical Psychiatry*, **61**, 828–832.
- Nau, H., Rating, D., Koch, S., *et al* (1981) Valproic acid and its metabolite: placental transfer, neonatal pharmacokinetics, transfer via mother's milk and clinical status in neonates of epileptic mothers. *Journal of Pharmacology and Experimental Therapeutics*, **219**, 768–777.
- Nulman, I., Ito, S. & Koren, G. (2003) Antidepressant medication and breast-feeding. In *Handbook of Female Psychopharmacology* (eds M. Steiner & G. Koren), pp. 103–115. London: Martin Dunitz.
- Orr, S. T. & Miller, C. A. (1995) Maternal depressive symptoms and the risk of poor pregnancy outcome. *Epidemiologic Reviews*, **17**, 165–171.
- Piontek, C., Baab, S., Peindel, K. S., *et al* (2000) Serum valproate levels in 6 breast-feeding mother–infant pairs. *Journal of Clinical Psychiatry*, **61**, 170–172.
- Schimmell, M. S., Katz, E. Z., Shaag, Y., *et al* (1991) Toxic neonatal effects following maternal clomipramine therapy. *Journal of Toxicology: Clinical Toxicology*, **29**, 479–484.
- Schmidt, K., Olesen, O. V. & Jenssen, P. N. (2000) Citalopram and breast-feeding: serum concentration and side-effects in the infant. *Biological Psychiatry*, **47**, 164–165.
- Spigset, O., Carleborg, L., Ohman, R., *et al* (1997) Excretion of citalopram in breast milk. *British Journal of Clinical Pharmacology*, **44**, 295–298.
- Stancer, H. C. & Reed, K. L. (1986) Desipramine and 2-hydroxydesipramine in human breast milk and the nursing infant's serum. *American Journal of Psychiatry*, **143**, 1597–1600.
- Stowe, Z. N., Owens, M. J., Landry, J. C., *et al* (1997) Sertraline and desmethylsertraline in human breast milk and nursing infants. *American Journal of Psychiatry*, **154**, 1255–1260.
- Suri, R. A., Altshuler, L. L., Burt, V. K., *et al* (1998) Managing psychiatric medications in the breast-feeding woman. *Medscape Women's Health*, **3**, 1–10.
- Sykes, P. A., Quarrie, J. & Alexander, F. W. (1976) Lithium carbonate and breast-feeding. *BMJ*, **2**, 1299.

Taddio, A., Ito, S. & Koren, G. (1996) Excretion of fluoxetine and its metabolite, norfluoxetine in human breastmilk. *Journal of Clinical Pharmacology*, **36**, 42–47.

Whalley, L. J., Blain, P. G. & Prime, J. K. (1981) Haloperidol secreted in breast milk. *BMJ*, **282**, 1746–1747.

Wisner, K. L. & Perel, J. M. (1991) Serum nortriptyline levels in nursing mothers and their infants. *American Journal of Psychiatry*, **148**, 1234–1236.

Wisner, K. L. & Perel, J. M. (1996a) Nortriptyline treatment of breast-feeding women (letter). *American Journal of Psychiatry*, **153**, 295.

Wisner, K. L. & Perel, J. M. (1996b) Psychopharmacological treatment during pregnancy and lactation. In *Psychopharmacology and Women: Sex, Gender and Hormones* (eds M. Jensvold, U. Halbreich & J. Hamilton), pp. 191–224. Washington, DC: American Psychiatric Publishing.

Wisner, K. L., Perel, J. M. & Findling, R. L. (1996) Antidepressant treatment during breast feeding. *American Journal of Psychiatry*, **153**, 1132–1137.

Yoshida, K., Smith, B., Craggs, M., et al (1997) Neuroleptic drugs in breast milk: a study of pharmacokinetics and of possible adverse effects in breast-fed infants. *Psychological Medicine*, **28**, 81–91.

Yoshida, K., Smith, B., Craggs, M., et al (1998) Fluoxetine in breast-milk and development outcome of breast-fed infants. *British Journal of Psychiatry*, **172**, 175–178.

Yoshida, K., Smith, B. & Kumar, R. C. (1999) Psychotropic drugs in mothers' milk: a comprehensive review of assay methods, pharmacokinetics and safety of breast-feeding. *Journal of Psychopharmacology*, **13**, 64–80.

MCQs

- 1 In treating mothers with mental health problems:**
- a decisions concerning the use of psychotropic medication in pregnancy are complicated
 - b decisions regarding the initiation of pharmacotherapy require consideration of its effects on the newborn
 - c the evidence regarding safety of breast-feeding while taking medication is well established
 - d psychiatrists should be able to discuss with their patients the risks and benefits of taking psychotropics while breast-feeding
 - e the dose below where there is no clinical effect in infants is known for most drugs.
- 2 It is well established that:**
- a there are no known side-effects in breast-feeding infants exposed to imipramine, desipramine or nortriptyline

- b amitriptyline has well-known adverse effects in exposed infants
- c infants exposed to clomipramine show no side-effects
- d dothiepin has been investigated for its long-term side-effects in infants and has been shown to be safe
- e respiratory depression can be one of the reversible side-effects following exposure to tricyclic anti-depressants.

3 The following facts are correct:

- a fluoxetine, sertraline and citalopram levels have been investigated in infants exposed through breast-feeding
- b it is reassuring to see that with some SSRIs serum levels in infants are not detectable
- c exposure of infants to SSRIs through breast-feeding can cause developmental delay
- d there is an increased frequency of adverse events such as irritability and restlessness in infants exposed to SSRIs
- e there are data to support liver and kidney dysfunction in infants breast-fed by mothers on SSRIs.

4 Regarding mothers who are breast-feeding:

- a benzodiazepines are not excreted in breast milk
- b benzodiazepines can produce lethargy and weight loss in the infant
- c short-acting benzodiazepines should be preferred to long-acting ones
- d prescription of benzodiazepines jointly with SSRIs would be a safer approach
- e benzodiazepines with doxepin is an advisable treatment.

5 In the management of breast-feeding women:

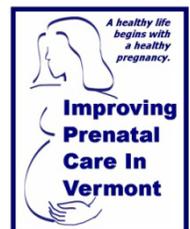
- a sedating drugs with long half-lives should be avoided in breast-feeding mothers
- b drugs should be avoided if the infant is premature or has hepatic, renal or cardiac failure
- c avoiding interacting drugs that raise plasma levels is important
- d drug effects on the development of the infant are well documented in several recent papers
- e several formal studies give good indication of infant plasma levels of the commonly used psychotropics.

MCQ answers

| | | | | |
|-----|-----|-----|-----|-----|
| 1 | 2 | 3 | 4 | 5 |
| a T | a T | a T | a F | a T |
| b T | b F | b T | b T | b T |
| c F | c T | c F | c T | c T |
| d T | d T | d F | d F | d F |
| e F | e T | e F | e F | e F |

Improving Prenatal Care in Vermont Best Practice Provider Toolkit

Preterm Labor



Preterm Labor Improvement Checklist

The best predictor for preterm birth is a history of preterm labor/delivery or prior low birth weight. Other risk factors are:

- Multi-fetal pregnancy
- History of infertility
- Maternal age <17 or >34
- Black race
- Socioeconomic Status (SES)
- Uterine abnormalities
- Incompetent cervix
- Low pregnancy weight
- Spotting or light bleeding
- Antenatal hemorrhage
- Stress and/or anxiety
- Tobacco use
- Recreational drug use
- Alcohol abuse prior to 3rd trimester
- Negative attitude towards pregnancy

Preterm Labor Prevention Goals:

1. 100% of pregnant women between 18 and 22 weeks gestation will be counseled and will receive written information on the signs and symptoms of preterm labor.
2. 100% of eligible women will be offered progesterone therapy.

Assess

- Screen for a history of preterm labor/delivery or prior low birth weight at the first prenatal visit.
- Consider currently available laboratory methods of risk assessment as appropriate:
 - ultrasonographic assessment of cervical length
 - fetal fibronectin assessment in cervicovaginal secretions (high true-negative rate in determining women at relatively low risk for preterm labor within the next 2 weeks)
- Identify need for consultation or transfer of care. Identifying women at low risk for preterm delivery allows avoidance of unnecessary interventions. Identifying patients at high risk for preterm delivery allows for consultation and/or transfer to a facility with appropriate resources for the care and management of a preterm neonate

Intervene

- Educate all women at 18-22 weeks gestation on the signs and symptoms of Preterm Labor (PTL) through both a discussion and handing patients written literature, regardless of risk
- Discuss the benefit of elective deliveries being scheduled after 39 weeks gestation
- Document discussion and education
- Consider steroid therapy, until 34 weeks gestation, for patients with prior history or signs and symptoms of PTL, who do currently not need acute therapy
- Consider referral, consultation, and /or transfer of care to an appropriate tertiary care center
- Consider progesterone therapy between 16-20 weeks for spontaneous pre-term labor or premature rupture of membranes (PROM)
- Consider consult with maternal fetal medicine at a tertiary care center

Follow-up

- Review any change in status at each visit after 20 weeks.
- Document discussion and education.

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Is there documentation of a discussion and information given to the patient between 18-22 weeks, regarding the signs and symptoms of preterm labor?
- Were all eligible women offered progesterone therapy?



Resources

- American College of Obstetrics and Gynecology. (2008). ACOG Committee Opinion, Number 419. Use of Progesterone to Reduce Preterm Labor. <https://www.smfm.org/.../co419%20%20Use%20of%20progesterone%20to%20return%20preterm%20birth.pdf>
- American College of Obstetrics and Gynecology. (2011). ACOG Committee Opinion, Number 475. Antenatal Corticosteroid Therapy for Fetal Maturation. Replacing No. 402, March 2008.
- March of Dimes Perinatal Statistics Current statistics: state or county specific prematurity and infant mortality rates. www.marchofdimes.com/peristats
- Other professional organizations, such as the American Academy of Family Physicians (AAFP) or American Medical Association (AMA) at <http://www.ama-assn.org> www.cdc.gov/reproductivehealth
- Path to Parenthood booklet (Vermont Department of Health/Children's Integrated Service) available http://dcf.vermont.gov/sites/dcf/files/pdf/cdd/dev/Path-to-Parenthood_web_2008.pdf
- March of Dimes Web site: <http://www.marchofdimes.com> (English) or <http://www.nacersano.org> (Spanish). To order a catalog or multiple copies of materials, call 1-800-367-6630.
 - Learn the Signs of Preterm Labor (flyer and wallet card) (also available in Spanish)
 - Preterm Labor: A Teaching Guide (booklet) (also available in Spanish)
 - I want my 9 months (flyer) (also available in Spanish)
 - Preterm Birth (fact sheet) (also available in Spanish)
 - Preterm Labor: Prevention and Nursing Management, 3rd Edition (nursing education)
 - Care of the Multiple-Birth Family: Pregnancy and Birth (nursing education)
 - Obstetrical Emergencies for the Perinatal Nurse (nursing education)
 - High-Risk Antepartal Home Care (nursing education)

References

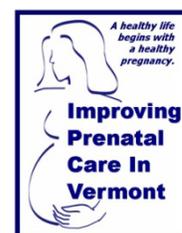
- Antenatal Corticosteroid Therapy for Fetal Maturation. ACOG Practice Bulletin No. 451. February 2011.
- Assessment of Risk Factors for Preterm Birth. ACOG Practice Bulletin No. 31. October 2001.
- Church-Balin, C., & Damus, K. (2003). Preventing Prematurity. *AWHONN Lifelines*, April-May, 97-101.
- Fuchs, K., & Gyamfi, C. (2006), The Influence of Obstetric Practices on Late Prematurity. (2008). *Clinics in Perinatology*, 35(2),3343-360.
- Davidoff, M. J., Dias, T., Damas, K., Russell. R., Bettgowda, V. R., Doan, S., Schwarz, R. H., Green, N. S., et al. (2006). Changes in the Gestational Age Distribution among U.S. Singleton Births: Impact on Rates of Late Preterm Birth, 1992 to 2002. *Seminars in Perinatology*, 30(1), 8-15.
- Wing, D. (2009). Induction of Labor. *Obstetrics & Gynecology*, 114, 386–397.



Improving Prenatal Care in Vermont

Best Practice Provider Toolkit

Infectious Disease



Infectious Disease Improvement Checklist

Goals (created in 2006 based on best practice guidelines, HP 2010, and/or planning committee consensus)

1. 100% of pregnant women will be offered testing for Gonorrhea and Chlamydia.
2. 100% of pregnant women who are at-risk (either through social factors or positive test) will be offered re-screening/ re-testing for Gonorrhea and Chlamydia by 34 weeks.
3. 100% of pregnant women will be screened for HIV
4. 100% of pregnant women will be offered a flu vaccination while pregnant.
5. 100% of pregnant women will be examined for Periodontal Disease.
6. 90% of pregnant women identified as possibly having Periodontal Disease will be referred for dental care, if available in community.

The dental piece was newer for us... Though we always did our exam for dentition, now we're more interested in following up on that and saying, "Okay, what can we do about this?" (midwife, rural OB practice)

We've always screened for STDs in the first trimester. The difference now is that we re-screen in second trimester. (midwife, rural OB practice)

Sexually Transmitted Infections (Chlamydia, Gonorrhea, Syphilis)

The Preventive Screening Task Force and ACOG guidelines recommend screening all pregnant women for common, generally asymptomatic, sexually transmitted infections, such as Gonorrhea and Chlamydia (GC). Other guidelines suggest risk-based screening focusing on age (< 25 years old), behavior (multiple sexual partners or history of STIs) and prevalence of gonorrhea and syphilis in the population. Additionally, women who are found to be at risk and are being screened for sexually transmitted infections during early pregnancy are often not re-screened later in pregnancy, and women at high risk for STIs are generally not counseled about the well recognized, STI-preventive benefits of condom use, even during pregnancy (USPSTF 2010; ACOG 2003).

Assess

- Offer STI testing to all patients at the 1st prenatal visit
- Screen for asymptomatic bacteriurea
- Assess for lifestyle factors and the need for re-screening
- Document if patient declines test

Intervene

- Hand out educational materials at the 1st prenatal visit
- Treat for positive screens, treat to cure
- Ensure all sexual partners of infected patients are tested and/or treated presumptively

Follow up

- Repeat GC screening by 34 wks for women at high risk and those previously treated
- Repeat screening raises the predictive value and is necessary to know that treatment was successful. It is important to re-screen patients who have a prior positive test during pregnancy and re-screen those with lifestyles that put them at-risk

Group B Streptococcus (GBS)

Assess

- Screen all patients between 35-36 weeks gestation

Follow-up

- Document results on antenatal form
- Inform patient of results and if positive implication for treatment during labor

Human Immunodeficiency Virus (HIV)

Early identification of maternal HIV seropositivity allows early antiretroviral treatment to prevent mother-to-child transmission, allowing providers to avoid obstetric practices that may increase the risk for transmission, and allows an opportunity to counsel the mother against breastfeeding (USPSTF, 2010).

Assess

- Screen all patients, as part of the prenatal blood work panel
- Document reason(s) for not testing or if patient opt-out/declines testing

Follow-up

- Document results on antenatal form
- Inform patient of results. If positive, inform of treatment therapy for labor and treatment for newborn

Hepatitis B (Hep B)

The ACOG and AAP recommend universal screening for Hepatitis B with the use of Hepatitis B Surface Antigen (HBsAg) and early treatment (within 12 hours of birth) of neonates with HBsAg positive mothers. It is estimated that at least half neonatal Hepatitis B infections may be preventable by use of the maternal test (HBsAg), maternal re-screening when appropriate, and notifying pediatric providers of positive maternal screening in a timely manner.

Assess

- Screen all patients for Hep B infection by testing for HBsAg regardless of previous Hep B vaccine or previous negative test
- Document Hepatitis (HBsAg) status on all prenatal patients. If maternal status is unknown at the time of delivery, hospital standing orders are such that neonate will receive immunoglobulin within 12 hours. Maternal Hepatitis status must be documented and accessible in prenatal record to avoid unnecessary treatment
- Document if patient declines newborn treatment

Intervene

- Women with positive HBsAg should be provided with or referred to counseling and appropriate medical treatment

Follow-up

- Ensure Hep B status is documented, on all prenatal charts, at time of admission to labor floor, or in a delivery setting. Women with unknown HBsAg status or with new or continuing risk factors for HBV infection (such as injection drug use or evaluation or treatment for a sexually transmitted infection) should receive screening

Influenza

Current guidelines place pregnant women in a high risk category concerning influenza and recommend vaccination, regardless of gestational age. Additionally, women with significant chronic diseases should get vaccinated at any point in their pregnancy.

Assess

- Offer every pregnant woman an influenza vaccination regardless of gestational age

Intervene

- Vaccinate pregnant
- Reassure patient that vaccination is not harmful, even in the first trimester

Follow-up

- If patient referred out of office, ensure vaccination was received
- Document vaccination even if done out of office

Periodontal Disease

Good oral health and control of oral disease protects a woman's health and has the potential to reduce the transmission of pathogenic bacteria from mothers to their children. Dental health should be a routine part of the prenatal evaluation. Practices participating in IPCV experienced considerable problems with referring pregnant women for dental care within Vermont. Documentation regarding assessment and the lack of access to dental resources may help provide evidence to assist in the development of effective and available dental care during pregnancy. Access to care is especially challenging for the Medicaid population. This is an important topic for statewide policy development.

Assess

- Screen all patients for periodontal disease by examining the oral cavity at the 1st prenatal visit

Intervene

- Refer for dental care when evidence of periodontal disease is present or suspected or the patient has not had dental care in the last year
- Refer patients with suspicion of periodontal disease for dental care. Though prenatal care providers may not feel qualified to absolutely determine the presence of periodontal disease in every patient, it is important to refer those who appear to have decay and irritated gums

Follow-up

- Ensure dental care was received
- Document lack of available resources, if applicable

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Was patient screened for GC and Chlamydia?
- Was patient re-tested if positive and/or re-screened if at risk due to social factors by 34 weeks?
- Is the GBS status of all patients clearly documented on all prenatal records for patients by the 37/38 week?
- Is the date of influenza vaccination recorded?
- Did the patient receive an evaluation for periodontal disease?
- If evidence of periodontal disease found, was referral made for dental care?
- If resources unavailable was there documentation of this?
- Is there documentation of HIV results and the opt-out decision noted, if applicable?
- If patient declined testing for GC and Chlamydia or influenza vaccination, was it documented?
- Was Hepatitis B Surface Antigen screening performed?
- Is Hepatitis B Surface Antigen result easily accessible within the prenatal chart?

Resources and References

- Center for Disease Control and Prevention. STD Treatment Guide. <http://www.cdc.gov/std/treatment> Assessed May 10, 2011.
- Center for Disease Control and Prevention. Hepatitis C FAQs for Health Professionals. <http://www.cdc.gov/hepatitis/HCV/HCVfaq.htm> Accessed May 3, 2011.
- March of Dimes Web site: <http://www.marchofdimes.com> (English) or <http://www.nacersano.org> (Spanish). To order a catalog or multiple copies of materials, call 1-800-367-6630.
 - Prenatal Care (booklet) (also available in Spanish)
 - Preconception Health Promotion: A Focus for Women's Wellness (nursing education)
 - High-Risk Antenatal Home Care (nursing education)
- Guilbeau, J. R., & Hurst, H. Brush Up. Periodontal Disease and Pregnancy. (2010). *Nursing for Women's Health*, 13(1), 496-499.



- Jared, H. & Boggess, K. (2008). Periodontal disease and adverse pregnancy outcomes: A review of the evidence and implications for clinical practice. *Journal of Dental Hygiene*, 3(summer Suppl.). 3-21.
- Primary and Preventive Care: Periodic Assessments. American College of Obstetricians and Gynecologists Committee on Gynecologic Practice. Committee Opinion No. 293. November 2003.
- United States Preventive Services Task Force (USPSTF). Department of Health and Human Service. Guide to Clinical Preventive Services 2010-2011. Washington, DC. <http://www.USPreventiveServicesTaskForce.org> Accessed May 10, 2011.
- Vermont Department of Health for current statistics – state or county specific rates of testing and infection





Are you pregnant? Have you had your flu shot?

Ask your provider for more information.

Created by Improving Prenatal Care in Vermont, VCHIP, Burlington, VT. 2011



Initial Screening Questions: Hepatitis C

Adusumalli J, Bonney EA, Odenat L, Jameison D. Hepatitis C Virus: Prevalence in an inner city urgent care clinic population Infect Dis Obstet Gynecol 2004; 12: 9-12

The purpose of this survey is to determine if an additional blood test might be recommended for you. Please circle "Yes" or "No" in response to the following questions.

1. Have you ever had a blood transfusion or organ transplant? **Yes or No**
2. Have you ever been on hemodialysis? **Yes or No**
3. Have you ever been exposed to blood or bodily fluids that were infected with hepatitis C? **Yes or No**
4. Do you have hepatitis C? **Yes or No**
5. Have you ever been told that you have hepatitis or that your liver has been functioning abnormally? **Yes or No**
6. Do you have any tattoos or body piercing? **Yes or No**
7. Have you had sex with more than 3 people in the past year? **Yes or No**
8. Have you ever had an infection that you got by having sex (i.e. Chlamydia, gonorrhea, trichomonas, syphilis, HIV, etc)? **Yes or No**
9. Have you ever used cocaine or illegal intravenous (injectable) drugs? **Yes or No**

Nursing Strategies to Improve Maternal Oral Health

Consider:

- Including oral health information during prenatal care and birth preparation classes
- Recommending scheduling a dental appointment before patient becomes pregnant or early in the pregnancy for assessment, prevention and treatment
- Explaining that hormones present during pregnancy make gum tissues more susceptible to gum diseases
- Looking for and asking about signs of gum disease
- Recommending daily plaque removal
- Encourage reduction in the risk for premature birth and all oral diseases, including cancer, by quitting smoking
- Recommending rinsing with a sodium bicarbonate solution (1/4 teaspoon baking soda in 1 cup warm water) to help neutralize acid to combat the dental effects of frequent vomiting; wait 30 minutes to brush to avoid removal of damaged tooth structure, and strengthen teeth with fluoride toothpaste and mouth wash.
- Including oral health in overall health and wellness education
- Reminding parents their newborn's first dental visit should be by 1 year of age
- Networking with oral health professionals
- Working to ensure nursing educational programs and in-service trainings have a comprehensive oral health component

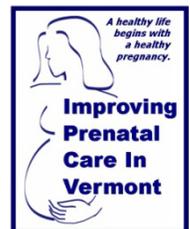
Warning Signs of Periodontal Disease

- Red, Swollen or tender gums or other mouth pain
- Bleeding while brushing, flossing or eating hard food
- Gums that are receding or pulling away from the teeth, causing the teeth to look longer than before
- Loose or separating teeth
- Pus between the gums or teeth
- Sores in mouth
- Persistent bad breath
- A change in the way teeth fit together when the woman bites down
- A change in the fit of partial dentures

(Guilbeau, 2010)

Improving Prenatal Care in Vermont Best Practice Provider Toolkit

Environmental Exposure



Environmental Exposure Improvement Checklist

Assessment

- Conduct universal screening at first prenatal visit to assess home, work, and play environments, daily habits and risks of exposure
- Review prenatal chart documentation to ensure provision of a checklist regarding patient education that includes discussion and printed material for reducing the exposure risk to materials such as (but not exclusive to) lead and mercury, biphenyl A (BPA), carbon monoxide, and second-hand smoke
- Review prenatal parent education to ensure the inclusion of information on 'Shaken Baby Syndrome' and the risks of co-sleeping with infants

Intervention

- Inform all pregnant women of known and suspected environmental risks during pregnancy, for herself, her unborn child, young children and other family members
- Provide written material and electronic resources for information concerning environmental exposure risks during pregnancy and childhood
- If the family does not have the resources to acquire an infant crib, contact your local home health or health department maternal-child health coordinator for possible community resources
- Discuss the potential risk of co-sleeping with infants and shaken baby syndrome
- Consider inviting community experts to staff meetings to better understand these topics and available resources within your community
- Assess pregnant women who intend to breastfeed to discuss the risk of co bedding and plan strategies to prevent potential risks of co sleeping

Follow up

- Track use of patient education checklist of topics and printed material which may help to reduce exposure to environmental health risks during pregnancy and beyond
- Encourage mothers to learn more and plan for decreasing environmental risks to their newborns such as second hand smoke, co sleeping and lead exposure

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Were all prenatal patients provided with information and resources on the environmental exposure topics that your office is targeting for quality care improvement?
- Create an informal questionnaire to survey your office staff and providers to determine their baseline understanding of certain environmental risks for pregnant women and their unborn child
- Update your community resources which could provide updated research and important information pregnant women should receive concerning certain environmental and parenting behaviors that may place their newborn at risk
- Assess the culture of your office by determining staff and provider knowledge on the potential risks of co-sleeping with infant children
- Identify target topics for quality improvement in your office

The following is a suggested list of topics your office may want to include as part of office-based prenatal education and discussion. This list is by no mean complete. It does however; highlight several of the current environmental concerns. If there are other environmental concerns in your community, we encourage you to research the topic and/or contact your local health department to ensure your office can provide the vital information and resources pregnant women need to better understand. The following information can be used as a template for the discussion(s) and education your office provides for your patients and their families.

Lead

Prenatal lead exposure is of concern because it may have an effect on cognitive development and, if exposed, may increase delinquent and antisocial behaviors as the child matures. Prenatal lead exposure may also reduce neonatal weight gain. In addition to fetal risk, lead may be a risk to the mother by causing an increase in blood pressure. The placenta provides a weak barrier to the passage of lead from the mothers to the fetus. Therefore, it may be assumed that fetal blood could contain the same concentration of lead as maternal blood.

In many cases, high levels of lead in pregnant women arise from maternal occupational exposure. However, other sources of lead exposure may occur, such as:

- remodeling a home containing lead paint that allows lead dust to become airborne and inhaled
- a family member's occupation or hobby resulting in "take-home" lead
- using non-commercial home remedies or cosmetics that contain lead
- using non-commercial glazed pottery for cooking
- pica behavior of the mother, such as eating soil or pieces of clay pots

The United States Preventative Services Task Force (USPSTF) recommends against routine screening for elevated blood lead levels in asymptomatic pregnant women due to the low occurrence of high serum lead levels in pregnant women in the US. However, a risk screening questionnaire should be used to decide when to test a pregnant, or potentially pregnant, woman for lead.

Resource and References

- Gardella, C. (2001). Lead Exposure in Pregnancy: A Review of the Literature and Argument for Prenatal Screening. *Obstetrical and Gynecological Survey* 56:231-237
- March of Dimes. Staying Safe
http://www.marchofdimes.com/pregnancy/stayingsafe_indepth.html
- Markowitz, M.E., & Shen, X-M. (2001). Assessment of bone lead during pregnancy: A pilot study. *Environmental Resources*, 85, 83-89
- Schnaas, L., Rothenberg, S. J., Flores, M. F., Martinez, S., Hernandez, C., Osorio, E., & Velasco, S. R. (2006). Reduced intellectual development in children with prenatal lead exposure. *Environmental Health Perspective*, 114(5), 791-797
- <http://www.ahrq.gov/clinic/uspstf/uspstf/uspstflead.htm>



Blood Lead Screening Risk Questionnaire for Pregnant Women

1. Do you live in a home or apartment built before 1978?
2. Have there been any recent home improvements or repairs where you live?
3. Were you born or have you ever lived in another country?
4. Do you use medicines, cosmetics or spices from another country?
5. Do you or someone with whom you live have a job or hobby that could bring you into contact with lead?
6. Do you use pottery that was made in another country, painted china or leaded glass?
7. Have you ever eaten or chewed crushed pottery, soil, paint chips or other things that aren't food?

Mercury

Fish that contain high levels of mercury should be avoided during pregnancy. Mercury consumed during pregnancy has been linked to developmental delays and brain damage in the exposed unborn child, infants and toddlers. Examples of these high risk fish include: shark, swordfish, king mackerel, and tilefish. Canned, chunk light tuna generally has a lower amount of mercury than other tuna, but still should only be eaten in moderation. Certain types of fish used in sushi should also be avoided due to high levels of mercury. Please see [Mercury in Fish](#) for specific types of fish and further information on how to calculate mercury levels.

Resources and References

- Daniel A. A., Bellinger, D. C., Ryan, L. M., & Woodruff, T. J. (2007). Dose–Response Relationship of Prenatal Mercury Exposure and IQ: An Integrative Analysis of Epidemiologic Data. *Environ Health Perspective*, 115(4):609–615.
- March of Dimes. Staying Safe
http://www.marchofdimes.com/pregnancy/stayingsafe_indepth.html
- US Federal Drug Administration (2004). What You Need to Know About Mercury in Fish and Shellfish. 2004 EPA and FDA Advice For: Women who might become pregnant, women who are pregnant, nursing mothers and young children.
<http://www.fda.gov/food/foodsafety/product-specificinformation/seafood/foodbornepathogenscontaminants/methylmercury/ucm115662.htm>
- <http://www.americanpregnancy.org/pregnancyhealth/fishmercury.htm>

Bisphenol A (BPA)

Bisphenol A (commonly known as BPA) is an industrial chemical used to make a hard, clear plastic known as polycarbonate which has been used in many consumer products including reusable water bottles and baby bottles.

BPA is also found in epoxy resins which act as a protective lining on the inside of metal-based food and beverage cans. The Department of Health and Human Services -- through its Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH), and the Food and Drug Administration (FDA) are investing in important new health studies, in both animals and humans, to better determine and evaluate the potential health effects of BPA exposure; including \$30 million in studies at NIH. We expect to have the results of this scientific research in approximately 18 to 24 months.

While we learn more, the Food and Drug Administration is supporting current efforts by industry to stop the manufacture of infant bottles and feeding cups made with BPA in the U.S. market.

Plastic Containers Made with BPA Used in Food Preparation. Plastic containers have recycle codes on the bottom. In general, plastics that are marked with recycle codes 1, 2, 4, 5, and 6 are very unlikely to contain BPA. It is important to note, not all plastics marked with recycle codes 3 or 7 are made with BPA.

- Do not put very hot or boiling liquid that you intend to consume in plastic containers made with BPA. BPA levels rise in food when containers/products made with the chemical are heated and come in contact with food
- Discard all bottles with scratches, as these may harbor bacteria and, if BPA-containing, lead to greater release of BPA

Resources and References

- US Department of Health and Human Services (HHS). BPA Information for Parents <http://www.hhs.gov/safety/bpa/>
- March of Dimes. Staying Safe http://www.marchofdimes.com/pregnancy/stayingsafe_indepth.html

Phthalates

Phthalates are chemicals produced from oil and are found in our environment in plastics, personal care products, and consumer goods, among many other things. Scientists are concerned that phthalates pose a risk to developing babies because the chemical properties of phthalates interrupt the hormone systems which are crucial to the developing baby. Although it is nearly impossible to stop exposure to phthalates, one can limit their exposure while pregnant.

Resources and References

- Checklist for reducing exposure to phthalates [How to avoid phthalates when pregnant | eHow.com http://www.ehow.com/how_6337014_avoid-phthalates-pregnant.html#ixzz1PMfB3eq4](http://www.ehow.com/how_6337014_avoid-phthalates-pregnant.html#ixzz1PMfB3eq4)

Secondhand Smoke

There is no risk-free level of exposure to secondhand smoke. Secondhand smoke causes numerous health problems in infants and children including severe asthma attacks, respiratory infections, ear infections, and sudden infant death syndrome (SIDS). Some of the health conditions caused by secondhand smoke in adults include heart disease and lung cancer.

Secondhand smoke, also known as passive or environmental tobacco smoke (ETS), is a combination of a) mainstream smoke exhaled by smokers and b) side-stream smoke given off by the burning end of a cigarette, cigar, or pipe.

Between 70% and 90% of non-smokers in the American population, children and adults, are regularly exposed to secondhand smoke. It is estimated that only 15% of cigarette smoke gets inhaled by the smoker. The remaining 85% lingers in the air for everyone to breathe. **If a person spends more than two hours in a room where someone is smoking, the nonsmoker inhales the equivalent of four cigarettes.**

- Secondhand smoke is the third leading preventable cause of disability and early death (after active smoking and alcohol) in the United States. For every eight smokers who die from smoking, one innocent bystander dies from secondhand smoke
- Secondhand smoke contains over 4000 chemicals including more than 40 cancer causing agents and 200 known poisons

- Secondhand smoke has been classified by the EPA as a Class A carcinogen - a substance known to cause cancer in humans
- Secondhand smoke contains twice as much tar and nicotine per unit volume as does smoke inhaled from a cigarette. It contains 3X as much cancer-causing benzpyrene, 5X as much carbon monoxide, and 50X as much ammonia
- Secondhand smoke from pipes and cigars is equally as harmful, if not more so (Mayo Clinic release, Aug 97)

When a pregnant woman is exposed to secondhand smoke, the nicotine she ingests is passed on to her unborn baby.

Women who smoke or are exposed to secondhand smoke during pregnancy:

- have a higher rate of miscarriages and stillbirths
- have a 20% higher risk of low birth weight infants who are often more difficult to care for
- have children born with decreased lung function
- have children with greater risk of sudden infant death syndrome (SIDS)

Infants and Children exposed to secondhand smoke are more likely to experience increased frequency of:

- asthma, colds, bronchitis, pneumonia, and other lung diseases
- middle ear infections
- sinus infections
- caries in deciduous (baby) teeth

Resources and References

- Behm, I., Kabir, Z., Connolly, G. N., & Alpert, H. R. (2011). Increasing prevalence of smoke-free homes and decreasing rates of sudden infant death syndrome in the United States: an ecological association study. *Tobacco Control*. Assessed June 7, 2011. <http://tobaccocontrol.bmj.com/content/early/2011/04/06/tc.2010.041376.full>
- First Candle <http://www.firstcandle.org/>
- National Institutes of Health. (2003). Safe Sleep for Your Baby: Ten Ways to Reduce the Risk of Sudden Infant Death Syndrome (SIDS). Rockville (MD): National Institutes of Health, National Institute of Child Health and Human Development http://www.nichd.nih.gov/publications/pubs/safe_sleep_gen.cfm
- National Tobacco Cessation Collaborative. <http://www.tobacco-cessation.org/>
- U.S. Department of Health and Human Services. (2006). The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health http://www.cdc.gov/tobacco/data_statistics/sgr/2010/index.htm

Pregnancy Exposure Risks

Patient Information Sheet

Second Hand Smoke:

Studies have shown that when a pregnant woman is exposed to secondhand smoke, the nicotine she ingests is passed on to her unborn baby. Women who smoke or are exposed to secondhand smoke during pregnancy:

- have a higher rate of miscarriages and stillbirths
- have an increased risk of low birthweight infants who are more often difficult to care for
- have children born with decreased lung function
- have children with greater risk of sudden infant death syndrome (SIDS)

In the U.S., sixty percent of 3 to 11 year olds are exposed to secondhand smoke. This smoke contains more than 4,000 chemicals, more than 50 of which are cancer-causing agents for both adult and childhood cancers. Children exposed to secondhand smoke are more likely to experience increased frequency of:

- asthma, colds, bronchitis, pneumonia, and other lung diseases
- middle ear infections
- sleep disorders
- sinus infections
- caries in deciduous (baby) teeth

Even after someone who has been smoking leaves the room, the smoke remains and settles on surfaces throughout the building. In multi-unit buildings, a recent study showed that children who live in multi-unit housing carry a 45% increased risk of showing the complications of secondhand smoke even if no one in the immediate home or apartment smokes.

What can you do?

- If you smoke, do whatever you can to not smoke in your home.
- If you must smoke in the home, limit the smoking to rooms where windows can be left open and/or fans used to move the smoke outside, and don't let your children use that room.
- Don't smoke in your car, even when children are not with you, since the chemicals from smoke stay in the air in your car even after you are done smoking.
- Make sure your child's day care, school, and after school programs are smoke free.

Of course, if you or a friend wants to stop smoking that is the best solution.

Help is available by calling the Vermont Quitline at 1-800-QUITNOW

Carbon Monoxide

Carbon monoxide is an odorless, colorless and toxic gas that is impossible to see, taste or smell its toxic fumes. For this reason CO can be fatal before victims are aware it is in their home. At lower levels of exposure, CO causes mild effects that are often mistaken for the flu. These symptoms include headaches, dizziness, disorientation, nausea and fatigue. The effects of CO exposure can vary greatly from person to person depending on age, overall health, the concentration and length of exposure.

Sources of Carbon Monoxide

Unvented kerosene and gas space heaters; leaking chimneys and furnaces; back-drafting from furnaces, gas water heaters, wood stoves, and fireplaces; gas stoves; generators and other gasoline powered equipment; automobile exhaust from attached garages; and tobacco smoke are all sources of carbon monoxide. Incomplete oxidation during combustion in gas ranges and unvented gas or kerosene heaters may cause high concentrations of CO in indoor air. Worn or poorly adjusted and maintained combustion devices (e.g., boilers, furnaces) can be significant sources, or if the [chimney] flue is improperly sized, blocked, disconnected, or is leaking. Auto, truck, or bus exhaust from attached garages, nearby roads, or parking areas can also be a source.

Steps to Reduce Exposure to Carbon Monoxide

It is most important to be sure combustion equipment is maintained and properly adjusted. Vehicular use should be carefully managed adjacent to buildings and in vocational programs. Additional ventilation can be used as a temporary measure when high levels of CO are expected for short periods of time.

- Keep gas appliances properly adjusted
- Consider purchasing a vented space heater when replacing an unvented one
- Use proper fuel in kerosene space heaters
- Install and use an exhaust fan vented to outdoors over gas stoves
- Open flues when fireplaces are in use
- Choose properly sized wood stoves that are certified to meet EPA emission standards. Make certain that doors on all wood stoves fit tightly
- Have a trained professional inspect, clean, and tune-up central heating system (furnaces, flues, and chimneys) annually. Repair any leaks promptly
- Do not idle the car inside a garage
- Never use a generator inside homes, garages, crawlspaces, sheds, or similar areas. Deadly levels of carbon monoxide can quickly build up in these areas and can linger for hours, even after the generator has shut off

Infant Safe Sleeping Environment

As medical professionals we have unique opportunity to share health education with pregnant women, new parents and caregivers. Among the many important topics there is none more important than the discussion around how to provide the safest sleep environment for infants. The goal of this discussion would be to 1) provide information to ensure a safe sleep environment for all infants and 2) ensure parents have the most up to date information and resources needed to provide a safe sleeping environment.

Topics such as sleep position, bedding, bed sharing, swaddling and bundling and smoking have all been associated with an increased risk of Sudden Infant Death Syndrome (SIDS)

There are some families in our communities who do not have a crib for their infant. In this instance it is vital to ensure that the mother understands the risks of placing the infant to sleep on a mattress other than one specifically made for an infant. There are several resources within the community that may be able to provide a crib. Contact your local health departments and ask to speak with the maternal child health coordinator in your district.

Resources and References

- American Academy of Pediatric: Policy Statements. Changing Concepts of Sudden Infant Death Syndrome: Implications for Infant Sleeping Environment and Sleep Position: Task Force on Infant Sleep Position and Sudden Infant Death Syndrome <http://aappolicy.aappublications.org/cgi/content/reprint/pediatrics;116/5.1245.pdf>
- Academy of Breastfeeding Medicine Protocol Committee. (2008). ABM clinical protocol #6: Guidelines on C-Sleeping and Breastfeeding Revision. *Breastfeeding Medicine*, 3(1), 38-43.
- Eron, N. B., Dygert, K. M., Squillace, C., Webster, N.J., Andrianos, A., Crockett, E. G., & Consenstein, L. (2011). The Physician's Role in Reducing SIDS. *Health Promotion Practice*, 12(3), 370-378.
- First Candle/SIDS Alliance <http://www.firstcandle.org>
- Hoogsteen, L. (2010). Safe Infant Sleeping: What is the Ideal Sleeping environment? *Nursing for Women's Health*, 4, 121-129.
- Moon, R.Y., Kington, M., Oden, R., Iglesias, J., & Hauck, F.R. (2007). Physician Recommendations Regarding SIDS Risk Reduction: A National Survey of Pediatricians and Family Physicians. *Clinical Pediatrics*, 46(9),791-800.
- Thomas, E. B. (2006). Co-sleeping, an ancient practice: Issues for the past and present, and possibilities for the future. *Sleep Medicine Review*, 10(6), 407-417.
- Yeh, E.S., Rochette, L. M., McKenzie, L. B., & Smith, G.A. (2011). Injuries Associated With Cribs, Playpens, and Bassinets Among Young Children in the US, 1990-2008. *Pediatrics*, 127(3), 479-486.

Benefits and Risks of Bedsharing (Hoogsteen, 2010)

Benefits of Bedsharing/Co Bedding

Promotes breastfeeding
Increases bonding time
Promotes skin-to-skin contact
Increases maternal vigilance
Positive psychological changes in infant

Risks of Co Sleeping

Increases risk of SIDS
Risk of death due to overlaying
Unsafe design of adult beds for infants
Interrupted infant sleeping patterns
Increases risk of asphyxia due to entrapment or airway obstruction



Talking Points

Infant Safe Sleeping Environments

- **BACK TO SLEEP:** Your baby should ALWAYS be placed on his/her back to sleep. Make sure you share this important information with anyone who cares for your baby.
- **NO ADULT BEDS:** Room sharing is a great way to facilitate feeding while sharing closeness with your baby and protecting him from SIDS, suffocation and accidents during sleep. See **First Candle's brochure: [Room Sharing is Safer than Bed Sharing \(English\) \(PDF\)](http://www.firstcandle.org/cms/wp-content/uploads/2010/01/Bedtime-Basics-Trifold_FC_ENGLISH.pdf)** located at the following website: http://www.firstcandle.org/cms/wp-content/uploads/2010/01/Bedtime-Basics-Trifold_FC_ENGLISH.pdf
- **BE ALERT:** If you are fully awake, it's OK to nurse your baby in bed, but the second you become sleepy or it is time to go to sleep, place your baby in a separate, safe, firm-surfaced sleep area alongside your bed.
- When you are breastfeeding or bottle-feeding, we urge you to pay close attention to safe feeding and sleeping practices and be aware of the hidden dangers of falling asleep with your baby in an adult bed, sofa, chair or other unsafe place. Pay close attention to the baby's position at the nipple and never "prop" up a bottle and leave your baby unattended.
- **SECONDHAND SMOKE:** Babies exposed to environmental smoke are at increased risk for several health problems and are at a higher risk of SIDS. Those you live with or anyone who cares for your baby should not smoke in the house or the car where your baby will be. Remember never smoke in bed, especially while holding your baby.
- **BUNDLING:** If your baby's doctor suggests infant bundling/swaddling the blanket should come no higher than your baby's shoulders. "Let me show you how to do this"
- **PACIFIERS:** You might want to consider offering our baby a pacifier at naptime or bedtime. Research has shown that pacifier use during sleep is associated with a reduced risk of SIDS. If the pacifier falls out after your baby falls asleep, you do not have to put the pacifier back. Remember a pacifier should not replace feeding; it should not substitute time breastfeeding and does not cause dental problems.

Abusive Head Trauma

Abusive head trauma (AHT), also referred to as “Shaken Baby Syndrome”, among infants constitutes one of the most severe forms of child abuse. Mortality rates are as high as 30% and significant neurologic impairments result for at least half of the infants that survive. Infant crying is a common antecedent to abusive head trauma. From October 2007 through December 2010 there were 22 known cases of AHT in Vermont, with 7 of those being fatal. Of the 22 perpetrators 20 were male and 18 of these individuals were the biological father. While these numbers may be alarming, with attention to this topic, in 2010 there were only 3 known cases.

This improvement is due in part to the efforts of clinical and community-base stakeholders working co-operatively to increase awareness on this issue. In 2009, Prevent Child Abuse Vermont (PCAV) began a statewide birthing hospital-based parent education program modeled after a comprehensive, regional, hospital-based parent education program in Western New York State that resulted in a 47% decrease in the incidence of abusive head injuries in infants and young children (Dias et. al, *Pediatrics* 2005). PCAV also began educating primary care practitioners (PCPs) around the state regarding AHT prevention in well child care. VCHIP, in close partnership with PCAV, extended those efforts in primary care through a practice based quality improvement project.

In an effort to continue this awareness campaign to reduce the incidence of AHT in Vermont, primary care offices that would like to receive training in how to counsel parents regarding infant crying are encouraged to contact Kay Shangraw, RN at PCAV at (802-229-5724) or email Dr Laura Murphy, MD (murphyslau@aol.com) to arrange a workshop. The workshops are only one hour long and can be scheduled to fit the needs of the office.

Resources and References

- A recent study showing increases in AHT may possibly relate to the recession. <http://www.yalemedicalgroup.org/stw/Page.asp?PageID=STW036484>
- Dias, M.S., Smith, K., deGuehery, K., Mazur, P., Veetal, L., & Shaffer, M. L. (2005). Preventing Abusive Head Trauma Among Infants and Young Children: A Hospital-Based, Parent Education Program. *Pediatrics*, 115(4), e470-e477 <http://pediatrics.aappublications.org/content/115/4/e470.full>

American Academy of Pediatrics Recommendations 2005 Policy Statement (Reaffirmed, 2008)



A Parent's Guide to Safe Sleep

Did You Know?

- About one in five sudden infant death syndrome (SIDS) deaths occur while an infant is in the care of someone other than a parent. Many of these deaths occur when babies who are used to sleeping on their backs at home are then placed to sleep on their tummies by another caregiver. We call this “unaccustomed tummy sleeping.”
 - Unaccustomed tummy sleeping increases the risk of SIDS. Babies who are used to sleeping on their backs and are placed to sleep on their tummies are 18 times more likely to die from SIDS.
- You can reduce your baby's risk of dying of SIDS by talking to those who care for your baby, including child care providers, babysitters, family, and friends, about placing your baby to sleep on his back at night and during naps.**

Who Is At Risk For SIDS?

- SIDS is the leading cause of death for infants between 1 month and 12 months of age.
- SIDS is most common among infants that are 2-4 months old. However, babies can die of SIDS until they are 1 year old.

What Can I Do Before My Baby Is Born To Reduce The Risk of SIDS?

Take care of yourself during pregnancy and after the birth of your baby. During pregnancy, even before you give birth, you can **reduce the risk** of your baby dying from SIDS! **Don't smoke or expose yourself to others' smoke while you are pregnant and after the baby is born.** Be sure to visit a physician for regular prenatal checkups to reduce your risk of having a low birth weight or premature baby. Breastfeed your baby, if possible, at least through the first year of life.

Know the Truth...SIDS Is Not Caused By:

- Immunizations
- Vomiting or choking

What Can I Do To Help Spread The Word About Back To Sleep?

- Be aware of safe sleep practices and how they can be made a part of our everyday lives.
- When shopping in stores with crib displays that show heavy quilts, pillows, and stuffed animals, talk to the manager about safe sleep, and ask them not to display cribs in this way.
- Monitor the media. When you see an ad or a picture in the paper that shows a baby sleeping on her tummy, write a letter to the editor.
- If you know teenagers who take care of babies, talk with them. They may need help with following the proper safe sleep practices.
- Set a good example – realize that you may not have slept on your back as a baby, but we now know that this is the safest way for babies to sleep. When placing babies to sleep, be sure to always place them on their backs.

It Is Easy and Free To Make Safe Sleep Practices a Part of Your Daily Life



This way, you will know that you are doing all that you can to keep your baby healthy and safe. Do your best to follow the guidelines above.

Last Updated 5/12/2011 **Source** A Parent's Guide to Safe Sleep (Copyright © American Academy of Pediatrics, Revised 2008).

The safest place for your baby to sleep is in the room where you sleep. Place the baby's crib or bassinet near your bed (within an arm's reach). This makes it easier to breastfeed and to bond with your baby.

The crib or bassinet should be free from toys, soft bedding, blankets, and pillows.

How Can I Reduce My Baby's Risk?

Follow these guidelines to help you reduce your baby's risk of dying from SIDS.

Safe Sleep Practices

- Always place babies to sleep on their backs during naps and at nighttime. Because babies sleeping on their sides are more likely to accidentally roll onto their stomach, the side position is not as safe as the back and is not recommended.
- Don't cover the heads of babies with a blanket or over-bundle them in clothing and blankets.
- Avoid letting the baby **get too hot**. The baby could be too hot if you notice sweating, damp hair, flushed cheeks, heat rash, and rapid breathing. Dress the baby lightly for sleep. Set the room temperature in a range that is comfortable for a lightly clothed adult.

Safe Sleep Environment

- Place your baby in a safety-approved crib with a firm mattress and a well-fitting sheet (cradles and bassinets may be used, but choose those that are JPMA (Juvenile Products Manufacturers Association) certified for safety).
- Place the crib in an area that is always smoke free.
- Don't place babies to sleep on adult beds, chairs, sofas, waterbeds, or cushions.
- Toys and other soft bedding, including fluffy blankets, comforters, pillows, stuffed animals, and wedges should not be placed in the crib with the baby. These items can impair the infant's ability to breathe if they cover his face.
- Breastfeed your baby. Experts recommend that mothers feed their children human milk at least through the first year of life.

Talk About Safe Sleep Practices With Everyone Who Cares For Your Baby!

When looking for someone to take care of your baby, including a child care provider, a family member, or a friend, make sure that you talk with this person about safe sleep practices. Bring this fact sheet along to help, if needed. If a caregiver does not know the best safe sleep practices, respectfully try to teach the caregiver what you have learned about safe sleep practices and the importance of following these rules when caring for infants. Before leaving your baby with anyone, be sure that person agrees that the safe sleep practices explained in this article will be followed all of the time.

Is It Ever Safe To Have Babies On Their Tummies?

Yes! You should talk to your child care provider about making tummy time a part of your baby's daily activities. Your baby needs plenty of tummy time while supervised and awake to help build strong neck and shoulder muscles. Remember to also make sure that your baby is having tummy time at home with you.

Tummy to Play and Back To Sleep

- Place babies to sleep on their backs to reduce the risk of SIDS. Side sleeping is not as safe as back sleeping and is not advised. Babies sleep comfortably on their backs, and no special equipment or extra money is needed.

- **“Tummy time”** is playtime when infants are awake and placed on their tummies while someone is watching them. Have tummy time to allow babies to develop normally.

If you have questions about safe sleep practices please contact Healthy Child Care America at the American Academy of Pediatrics at childcare@aap.org or 888/227-5409. Remember, if you have a question about the health and safety of your child, talk to your baby’s doctor.

Last Updated 5/12/2011 **Source** A Parent's Guide to Safe Sleep (Copyright © American Academy of Pediatrics, Revised 2008.



Resources for Health Care Practitioners Information and Support for Families Challenged with Crying and/or Fussy Babies and their Care Providers

Karyn Patno, MD

Clinical Director, ChildSafe Program

via Provider Access Services

Chittenden County Phone: 802-847-2700 or Toll Free: 800-639-2480

- ChildSafe is an office-based medical clinic staffed by the Vermont Children's Hospital pediatricians who treat children suffering from sexual abuse, physical abuse, medical abuse, emotional abuse and neglect.
- Dr. Patno is available as a resource to practitioners with questions about screening, assessment, and prevention of child abuse.

In addition to clinical work with suspected and confirmed victims of child abuse, Dr. Patno provides pediatric primary care at St. Johnsbury Pediatrics. She completed a mini-fellowship in forensic pediatrics at Brown University School of Medicine Department of Pediatrics and Hasbro Children's Hospital in 2008. This mini-fellowship trains pediatricians as medical experts who are knowledgeable and competent in all areas of child abuse and neglect.

Children's Integrated Services (CIS)

Services formerly provided by Healthy Babies Kids & Families, Children's Upstream Services, and Family Infant Toddler.

<http://dcf.vermont.gov/cdd/cis>

Dial 2-1-1 anywhere in Vermont. Ask to be connected to the local CIS team coordinator

- Resources for pregnant and postpartum women, families and children.
- Expertise in social work & family support; maternal/child health & nursing; child development & early intervention, early childhood & family mental health and other specialties.
- Answers to questions and concerns of pregnant and postpartum women and families about:
 - Conditions or risk situations that may impact a baby's health or safety during pregnancy and postpartum.
 - Providing a stable, healthy environment for children
 - Possible developmental delay or condition in a child
- Help to develop action plans for children and families.
- Referrals and help through transitions to other community resources.
- Information callers give about themselves or their family won't be shared with others without consent, all information is confidential.

Parent Stress Line (of Prevent Child Abuse-VT)

1-800-CHILDREN or 802-229-5724. Toll Free Available Monday-Friday 9AM-5PM

- Support team available to provide a listening ear, resources and referrals, but are *not* trained counselors

Vermont 211

Dial 2-1-1 Toll Free from anywhere in VT. Available 24 hours a day, 7 days a week.

<http://www.vermont211.org/>

- For help finding other resources that can help with the many needs, desires, and stresses families experience.
- Access to community resources through information and referral.
- Telephone and online personal assistance using a searchable database of services.
- Confidential.
- Live translation services.
- Ability to transfer emergency calls to 9-1-1.

National Child Abuse Hotline

Available 24 hours a day, 7 days a week. 1-(800) 4-A-CHILD or (800) 422-4453, Toll Free.

www.childhelpusa.org

- Crisis intervention, information, literature, and referrals to emergency, social service, and support resources.
- Staffed by professional crisis counselors.
- Confidential.
- Interpreters for 140 languages.

Happiest Baby on the Block

<http://www.happiestbaby.com/>

- Website of Dr. Harvey Karp, Assistant Professor of Pediatrics, UCLA School of Medicine, child development specialist.
- Resources on parent strategies for soothing colic, boosting infant sleep, promoting parent patience.

KidsHealth

<http://www.kidshealth.org>

- Provides families with information and advice about a wide range of physical, emotional, and behavioral issues that affect children and teens. All content goes through a rigorous medical review by pediatricians and other medical experts.
- Sample Resource: *Your Colicky Baby*.
<https://kidshealth.org/parent/growth/growing/colic.html>



Resources for Parents and Caregivers **Information and Support for Families Challenged with** **Crying and/or Fussy Babies**

Statewide Support Services

Children's Integrated Services (CIS)

<http://dcf.vermont.gov/cdd/cis>

Dial 2-1-1; toll free, anywhere in Vermont. Ask to be connected to your local CIS coordinator

- Resources for pregnant and postpartum women, families and children.
- Expertise in social work & family support; maternal/child health & nursing; child development & early intervention, early childhood & family mental health and other specialties.
- Answers to questions and concerns of pregnant and postpartum women and families about:
 - Conditions or risk situations that may impact a baby's health or safety during pregnancy and postpartum.
 - Providing a stable, healthy environment for children.
 - Possible developmental delay or condition in a child.
- Help to develop action plans for children and families.
- Referrals and help through transitions to other community resources.
- Information callers give about themselves or their family will not be shared with others without consent, all information is confidential.

Vermont 211

Dial 2-1-1 toll free from anywhere in VT. Available 24 hours a day, 7 days a week.

<http://www.vermont211.org/>

- For help finding other resources that can help with the many needs, desires, and stresses families experience.
- Access to community resources through information and referral.
- Telephone and online personal assistance using a searchable database of services.
- Confidential.
- Live translation services.
- Ability to transfer emergency calls to 9-1-1.

Parent Stress Line (of Prevent Child Abuse-VT)

1-800-CHILDREN or 802-229-5724. Toll free

Available Monday-Friday 9AM-5PM

- Support team available to provide a listening ear, resources and referrals, but are not trained counselors.

Prevent Child Abuse-VT, Shaken Baby Syndrome/Abusive Head Trauma Prevention Program

Kay Shangraw, RN, Program Manager/Trainer

1-802-229-5724 or 802-249-3039-cell

<http://www.pcavt.org/index.asp?pageid=10>

- Free Prevention trainings and information for groups or persons interested in preventing abusive head trauma.
- Phone calls with parents or caregivers for consult regarding resources available to them. Help locating appropriate prevention trainings in their area.

National Support Resources and Tools for Parents

National Child Abuse Hotline

1-(800) 4-A-CHILD or (800) 422-4453. Toll free. Available 24 hours a day, 7 days a week.

www.childhelpusa.org

- Crisis intervention, information, literature, and referrals to emergency, social service, and support resources.
- Staffed by professional crisis counselors.
- Confidential.
- Interpreters for 140 languages.

Happiest Baby on the Block

<http://www.happiestbaby.com/>

- Website of Dr. Harvey Karp, Assistant Professor of Pediatrics, UCLA School of Medicine, child development specialist.
- Resources on parent strategies for soothing colic, boosting infant sleep, promoting parent patience.

KidsHealth

<http://www.kidshealth.org>

- Provides families with information and advice about a wide range of physical, emotional, and behavioral issues that affect children and teens. All content goes through a rigorous medical review by pediatricians and other medical experts.
- Sample KidsHealth resource: *Your Colicky Baby*:
<http://kidshealth.org/parent/growth/growing/colic.html>



ABM Protocols

ABM Clinical Protocol #6: Guideline on Co-Sleeping and Breastfeeding

Revision, March 2008

THE ACADEMY OF BREASTFEEDING MEDICINE PROTOCOL COMMITTEE

A central goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

INTRODUCTION

THE ACADEMY OF BREASTFEEDING MEDICINE is a worldwide organization of physicians dedicated to the promotion, protection, and support of breastfeeding and human lactation. One of the goals of the Academy of Breastfeeding Medicine is the facilitation of optimal breastfeeding practices. This clinical guideline addresses an aspect of parenting that has a significant impact on breastfeeding: infant sleep locations.

BACKGROUND

The terms co-sleeping and bed sharing are often used interchangeably. However, bed sharing is only one form of co-sleeping. Co-sleeping, in reality, refers to the diverse ways in which infants sleep in close social and/or physical contact with a caregiver (usually the mother).¹ This operational definition includes an infant sleeping alongside a parent on a different piece of furniture/object as well as clearly unsafe prac-

tices such as sharing a sofa or recliner. Around the world the practice of co-sleeping can be very variable, and, as such, all forms of co-sleeping do not carry the same risks or benefits.² Some forms of parent-child co-sleeping provide physical protection for the infant against cold and extend the duration of breastfeeding, thus improving the chances of survival of the slowly developing human infant.^{1,3-5} The human infant, relative to other mammals, develops more slowly, requires frequent feedings, and is born neurologically less mature.^{1,3-5} In malaria settings, co-sleeping is recommended as the most efficient use of available bed-nets, and co-sleeping may be necessary in other geographic areas where available bedding or housing is inadequate. Bed sharing and co-sleeping have also long been promoted as a method to enhance parenting behavior or “attachment parenting” and also to facilitate breastfeeding.¹⁻¹³

Bed sharing and some forms of co-sleeping have been rather controversial in the medical literature in recent years and have received considerable negative comment.⁶⁻¹⁰ Some pub-

lic health authorities have discouraged all parents from bed sharing.^{11,12}

BED SHARING AND INFANT MORTALITY

The concerns regarding the bed sharing and increased infant mortality have been centered around mechanical suffocation (asphyxiation) and sudden infant death syndrome (SIDS) risks.

Asphyxiation risk

Several studies using *unverified death certificate* diagnoses concluded that a significant number of infants were asphyxiated as they slept in unsafe sleep environments caused by either accidental entrapment in the sleep surface or overlying by a sleeping adult or older child.^{6–10} The U.S. Consumer Product Safety Commission (USCPSC), using data from some of these studies, has made recommendations against the use of all types and forms of co-sleeping and advised parents against sleeping with their infants under any circumstances. The USCPSC is concerned about the absence of infant safety standards for adult beds and the hazards that may result from an infant sleeping in an unsafe environment.¹¹ All of these studies lack data on the state of intoxication of the co-sleeping adult (drugs or alcohol) and fail to consider the sleep position of the baby at time of death, even though prone sleep position appears to be one of the most significant risk factors for SIDS. The Commission also groups all bed sharing into one category, not separating known unsafe sleep environments such as sofas and couches, waterbeds, and upholstered chairs from other, safer sleep surfaces. In these studies, there is no assurance of the quality of the data collection, no consistency in the criteria employed in using the term “overlay,” and no validation of the conclusions. Bias by medical examiners and coroners may lead them to classify infant deaths that occur in an adult bed, couch, or chair in the presence of an adult as a rollover death even where there is no evidence that an actual overlay occurred. This is especially a problem in the absence of a

death scene examination and detailed interviews of those present at the time of death. There is no autopsy method to differentiate between death caused by SIDS versus death from accidental or intentional causes such as infant homicide by pillow smothering. Thus, infant deaths that occur in a crib are usually designated as SIDS, whereas deaths in a couch or adult bed are usually labeled as smothering. Further complicating analyses of infant deaths is the diversity of bed-sharing behaviors among different populations and even within the same families (i.e., bed sharing during the day vs. at night or when a baby is ill vs. when a baby is well), suggesting different levels of risk. A home visit study of families considered to be at high risk for SIDS because of socioeconomic status found that those bed sharing were more likely to place infants in the prone position and to use softer bed surfaces.¹⁴ Similarly, a population-based retrospective review found that “Bed-sharing subjects who breastfed had a risk profile distinct from those who were not breastfed cases. Risk and situational profiles can be used to identify families in greater need of early guidance and to prepare educational content to promote safe sleep.”¹⁵

SIDS prevention and risk

Several epidemiological studies and a meta-analysis have found a significant association between breastfeeding and a lowered SIDS risk, especially when breastfeeding was the exclusive form of feeding during the first 4 months of life.^{16,17}

However, there is insufficient evidence at this time to show a causal link between breastfeeding and the prevention of SIDS. Several studies have consistently demonstrated an increased risk of SIDS when infants bed share with mothers who smoke cigarettes.^{2,18–24} Exposure to cigarette smoke as a fetus and in infancy appears to contribute to this risk and is independent of other known risk factors, including social class. This has led to the recommendation, which is well supported in the medical literature, that infants not bed share with parents who smoke. A large meta-analysis, after review of over 40 studies, concluded that, “Evidence consistently suggests that there

may be an association between bed sharing and sudden infant death syndrome (SIDS) among smokers (however defined), but the evidence is not as consistent among nonsmokers. This does not mean that no association between bed sharing and SIDS exists among nonsmokers, but that existing data do not convincingly establish such an association."²⁵

ETHNIC DIVERSITY

The rates of SIDS deaths are low in Asian cultures in which co-sleeping is common. However, some argue that co-sleeping in these cultures is different from the bed sharing that occurs in the United States. As Blair and colleagues note in their study, "A baby sleeping at arm's length from the mother on a firm surface, as is often the case in Hong Kong, or a Pacific Island baby sleeping *on* the bed rather than *in* the bed is in a different environment from a baby sleeping in direct contact with the mother on a soft mattress and covered by a thick duvet."² Similarly, even within the United States there seems to be variation in bed-sharing practices based on ethnicity and race. A large, prospective study using multivariate analysis of bed sharing found that race or ethnicity appears to have the strongest association with bed sharing at all follow-up periods, with black, Asian, and Hispanic mothers four to six times more likely to bed share than white mothers.²⁶

In a study in Alaska, where there is a high rate of co-sleeping among Alaskan Native people, researchers found that almost all SIDS deaths associated with parental bed sharing occurred in conjunction with a history of parental drug use and occasionally in association with prone sleep position or sleeping on surfaces such as couches or waterbeds.²⁷ A study using the PRAMS (Pregnancy Risk Assessment Monitoring System) data set in Oregon found that "The women most likely to bed share are non-white, single, breastfeeding and low-income. Non-economic factors are also important, particularly among blacks and Hispanics. Campaigns to decrease bed sharing by providing cribs may have limited effectiveness if mothers are bed sharing because of cultural norms."²⁷

CONTROLLED LABORATORY STUDIES

McKenna and colleagues have studied bed sharing in the greatest scientific detail in a laboratory setting and have found that infants who shared a bed with the mother had more sleep arousals and spent less time in Stage 3 and 4 sleep. This may be protective against SIDS since deep sleep and infrequent arousals have been considered as possible risk factors for SIDS.^{3,28,29}

A similar study that was conducted in the natural physical environment of home instead of a sleep lab "compared the 2 different sleep practices of bed sharing and cot sleeping quantifying factors that have been identified as potential risks or benefits. Overnight video and physiologic data of bed-share infants and cot-sleep infants were recorded in the infants' own homes."³⁰ This study concluded that "Bed-share infants without known risk factors for sudden infant death syndrome (SIDS) experience increased maternal touching and looking, increased breastfeeding, and faster and more frequent maternal responses."³⁰ This increased interaction between mothers and babies may be protective.

PARENTAL FACTORS

The contribution of other parental factors to the risk of bed sharing is unclear. Blair and colleagues found in a multivariate analysis that maternal alcohol consumption of more than two drinks (one drink = 12 oz beer, 5 oz wine, or 1.5 oz distilled alcohol) and parental tiredness were associated with sudden infant death.² A study in New Zealand, however, did not show a clear link with alcohol consumption.²¹ The role of obesity was examined in one study of SIDS cases. They found the mean pre-gravid weights of bed-sharing mothers to be greater than those of non-bed-sharing mothers.⁷

If overlying is thought to be the mechanism of infant suffocation, it would seem plausible that the psychological and physical states of those sharing the bed with an infant could be of importance.

Room sharing with parents (infants sharing the same room as their parents as opposed to being in a separate room) appears to be protective against SIDS.^{2,31,32}

INFANT FACTORS

There is some evidence that bed sharing with younger babies <8–14 weeks may increase the risk of SIDS.^{2,31,32}

BREASTFEEDING AND BED SHARING

Research continues to show the strong relationship between breastfeeding and bed sharing/co-sleeping. A study of bed sharing and breastfeeding in the United States found that infants who routinely shared a bed with their mothers breastfed approximately three times longer during the night than infants who routinely slept separately. There was a twofold increase in the number of breastfeeding episodes, and the episodes were 39% longer.³³ Proximity to and sensory contact with the mother during sleep facilitates prompt responses to signs of the infant's readiness to breastfeed and provides psychological comfort and reassurance to the dependent infant as well as the parents. A large prospective study of more than 10,000 infants in the United State found that up to 22% of 1-month-old infants were bed sharing and that breastfeeding mothers were three times more likely to bed share than mothers who did not breastfeed. Ninety-five percent of infants who shared a bed did so with a parent.²⁶ Similarly, a study of parent-infant bed sharing in England found that "Breast feeding was strongly associated with bed-sharing, both at birth and at 3 months."³⁴

Based on the above information and literature, the Academy of Breastfeeding Medicine has the following recommendations for health-care providers.

RECOMMENDATIONS

- A. Because breastfeeding is the best form of nutrition for infants, any recommendations for infant care that impede its initiation or duration need to be carefully weighed against the many known benefits to infants, their mothers, and society.
- B. It should not be assumed that all families are practicing only one sleeping arrange-

ment all night every night and during the daytime as well. Healthcare providers should consider ethnic, socioeconomic, feeding, and other family circumstances when obtaining a history on infant sleep practices.^{2,14,15}

- C. Parents need to be encouraged to express their views and to seek information and support from their healthcare providers. Sensitivity to cultural differences is necessary when obtaining sleep histories.
- D. There is currently not enough evidence to support routine recommendations against co-sleeping. Parents should be educated about risks and benefits of co-sleeping and unsafe co-sleeping practices and should be allowed to make their own informed decision.

Bed sharing/co-sleeping is a complex practice. Parental counseling about infant sleep environments should include the following information:

1. Some potentially unsafe practices related to bed sharing/co-sleeping have been identified either in the peer-reviewed literature or as a consensus of expert opinion:
 - Environmental smoke exposure and maternal smoking^{2,18–25}
 - Sharing sofas, couches, or daybeds with infants^{2,8–12}
 - Sharing waterbeds or the use of soft bedding materials^{6,8–12}
 - Sharing beds with adjacent spaces that could trap an infant^{6,8–12}
 - Placement of the infant in the adult bed in the prone or side position^{6,8–12}
 - The use of alcohol or mind-altering drugs by the adult(s) who is bed sharing²
 - Infants bed sharing with other children¹²
 - Bed sharing with younger babies <8–14 weeks of age may be more strongly associated with SIDS.^{2,7,25,31,32}
2. Families also should be given all the information that is known about safe sleep environments for their infants, including:
 - Place babies in the supine position for sleep.¹²
 - Use a firm, flat surface and avoid waterbeds, couches, sofas, pillows, soft materials, or loose bedding.^{6,8–12}

- If blankets are to be used, they should be tucked in around the mattress so that the infant's head is less likely to be covered.¹²
- Ensure that the head will not be covered. In a cold room the infant could be kept in an infant sleeper to maintain warmth.^{6,8-12}
- Avoid the use of quilts, duvets, comforters, pillows, and stuffed animals in the infant's sleep environment.^{6,8-12}
- Never put an infant down to sleep on a pillow or adjacent to a pillow.^{6,8-12}
- Never leave an infant alone on an adult bed.^{6,8-12}
- Inform families that adult beds have potential risks and are not designed to meet federal safety standards for infants.^{6,8-12}
- Ensure that there are no spaces between the mattress and headboard, walls, and other surfaces, which may entrap the infant and lead to suffocation.^{6,8-12}
- Placement of a firm mattress directly on the floor away from walls may be a safe alternative. Another alternative to sharing an adult bed or sharing a mattress is the use of an infant bed that attaches to the side of the adult bed and provides proximity and access to the infant but a separate sleep surface. There are currently no peer-reviewed studies on the safety or efficacy of such devices.
- Room sharing with parents appears to be protective against SIDS.^{2,12,31,32}

RECOMMENDATIONS FOR FUTURE RESEARCH

- A. The Academy of Breastfeeding Medicine urges that more research be undertaken so that the benefits and risks of co-sleeping and bed sharing and their association with breastfeeding can be better understood.
- B. Researchers should employ well-designed, impartial, prospective protocols with standardized, well-defined data collection methods. Control data for comparison are an essential part of such research. Studies should be population based, so that actual risk of sudden infant death and overlying smothering due to bed sharing or co-sleeping can be computed. A denominator is needed for calculation of risk and for comparison with

- a population not practicing co-sleeping or bed sharing. In the final analysis, it is critical that dangerous, modifiable "factors" associated with bed sharing not be considered the same as bed sharing itself.
- C. The diversity of bed sharing/co-sleeping practices among the different ethnic groups in the United States and throughout the world needs to be carefully considered and documented as part of research protocols.
 - D. Continuing study of the impact of co-sleeping on infant behavior, SIDS, and breastfeeding is essential.

ACKNOWLEDGMENTS

This work was supported in part by a grant from the Maternal Child Health Bureau, U.S. Department of Health and Human Services.

REFERENCES

1. McKenna JJ, Thoman EB, Anders TF, et al. Infant-parent co-sleeping in an evolutionary perspective: Implications for understanding infant sleep development and the sudden infant death syndrome. *Sleep* 1993;16:263-282.
2. Blair PS, Fleming PJ, Smith IJ, et al. Babies sleeping with parents: Case-control study of factors influencing the risk of the sudden infant death syndrome. CESDI SUDI research group. *BMJ* 1999;319:1457-1461.
3. McKenna JJ. An anthropological perspective on the sudden infant death syndrome (SIDS): The role of parental breathing cues and speech breathing adaptations. *Med Anthropol* 1986;10:9-92.
4. McKenna JJ, Mosko S. Evolution and infant sleep: an experimental study of infant-parent co-sleeping and its implications for SIDS. *Acta Paediatr Suppl* 1993; 82(Suppl 389):31-36.
5. McKenna JJ, Mosko SS. Sleep and arousal, synchrony and independence, among mothers and infants sleeping apart and together (same bed): An experiment in evolutionary medicine. *Acta Paediatr Suppl* 1994;397: 94-102.
6. Byard RW, Beal S, Bourne AJ. Potentially dangerous sleeping environments and accidental asphyxia in infancy and early childhood. *Arch Dis Child* 1994;71: 497-500.
7. Carroll-Pankhurst C, Mortimer EA Jr. Sudden infant death syndrome, bedsharing, parental weight, and age at death. *Pediatrics* 2001;107:530-536.
8. Drago DA, Dannenberg AL. Infant mechanical suffocation deaths in the United States, 1980-1997. *Pediatrics* 1999;103:e59.
9. Kemp JS, Unger B, Wilkins D, et al. Unsafe sleep practices and an analysis of bedsharing among infants dy-

- ing suddenly and unexpectedly: Results of a four-year, population-based, death-scene investigation study of sudden infant death syndrome and related deaths. *Pediatrics* 2000;106:e41.
10. Nakamura S, Wind M, Danello MA. Review of hazards associated with children placed in adult beds. *Arch Pediatr Adolesc Med* 1999;153:1019–1023.
 11. U.S. Consumer Products Safety Commission. *CPSC Warns Against Placing Babies in Adult Beds*. Report Number SPSC Document #5091. U.S. Consumer Products Safety Commission, Washington, DC, 1999.
 12. The changing concept of sudden infant death syndrome: Diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk. *Pediatrics* 2005;116:1245–1255.
 13. Rosenberg KD. Sudden infant death syndrome and co-sleeping. *Arch Pediatr Adolesc Med* 2000;154:529–530.
 14. Flick L, White DK, Vemulapalli C, et al. Sleep position and the use of soft bedding during bed sharing among African American infants at increased risk for sudden infant death syndrome. *J Pediatr* 2001;138:338–343.
 15. Ostfeld BM, Perl H, Esposito L, et al. Sleep environment, positional, lifestyle, and demographic characteristics associated with bed sharing in sudden infant death syndrome cases: A population-based study. *Pediatrics* 2006;118:2051–2059.
 16. Ford RP, Taylor BJ, Mitchell EA, et al. Breastfeeding and the risk of sudden infant death syndrome. *Int J Epidemiol* 1993;22:885–890.
 17. McVea KL, Turner PD, Pepller DK. The role of breastfeeding in sudden infant death syndrome. *J Hum Lact* 2000;16:13–20.
 18. Mitchell EA, Taylor BJ, Ford RP, et al. Four modifiable and other major risk factors for cot death: The New Zealand study. *J Paediatr Child Health* 1992;28(Suppl 1):S3–S8.
 19. Mitchell EA, Esmail A, Jones DR, et al. Do differences in the prevalence of risk factors explain the higher mortality from sudden infant death syndrome in New Zealand compared with the UK? *N Z Med J* 1996;109:352–355.
 20. Mitchell EA, Tuohy PG, Brunt JM, et al. Risk factors for sudden infant death syndrome following the prevention campaign in New Zealand: A prospective study. *Pediatrics* 1997;100:835–840.
 21. Scragg R, Mitchell EA, Taylor BJ, et al. Bed sharing, smoking, and alcohol in the sudden infant death syndrome. New Zealand Cot Death Study Group. *BMJ* 1993;307:1312–1318.
 22. Scragg R, Stewart AW, Mitchell EA, et al. Public health policy on bed sharing and smoking in the sudden infant death syndrome. *N Z Med J* 1995;108:218–222.
 23. Scragg RK, Mitchell EA. Side sleeping position and bed sharing in the sudden infant death syndrome. *Ann Med* 1998;30:345–349.
 24. Mitchell EA, Scragg L, Clements M. Factors related to infants bed sharing. *N Z Med J* 1994;107:466–467.
 25. Horsley T, Clifford T, Barrowman N, et al. Benefits and harms associated with the practice of bed sharing: a systematic review. *Arch Pediatr Adolesc Med* 2007;161:237–245.
 26. McCoy RC, Hunt CE, Lesko SM, et al. Frequency of bed sharing and its relationship to breastfeeding. *J Dev Behav Pediatr* 2004;25:141–149.
 27. Lahr MB, Rosenberg KD, Lapidus JA. Maternal-infant bedsharing: Risk factors for bedsharing in a population-based survey of new mothers and implications for SIDS risk reduction. *Matern Child Health J* 2007;11:277–286.
 28. McKenna JJ, Mosko S, Dungy C, et al. Sleep and arousal patterns of co-sleeping human mother/infant pairs: A preliminary physiological study with implications for the study of sudden infant death syndrome (SIDS). *Am J Phys Anthropol* 1990;83:331–347.
 29. Mosko S, Richard C, McKenna J. Infant arousals during sleep and sudden infant death syndrome research. *Pediatrics* 1997;100:841–849.
 30. Baddock SA, Galland BC, Bolton DP, et al. Differences in infant and parent behaviors during routine bed sharing compared with cot sleeping in the home setting. *Pediatrics* 2006;117:1599–1607.
 31. Tappin D, Ecob R, Brooke H. Bedsharing, roomsharing, and sudden infant death syndrome in Scotland: A case-control study. *J Pediatr* 2005;147:32–37.
 32. Carpenter RG, Irgens LM, Blair PS, et al. Sudden unexplained infant death in 20 regions in Europe: Case control study. *Lancet* 2004;363:185–191.
 33. McKenna JJ, Mosko SS, Richard CA. Bedsharing promotes breastfeeding. *Pediatrics* 1997;100:214–219.
 34. Blair PS, Ball HL. The prevalence and characteristics associated with parent-infant bed-sharing in England. *Arch Dis Child* 2004;89:1106–1110.

ABM protocols expire five years from the date of publication. Evidence-based revisions are made within five years, or sooner if there are significant changes in the evidence.

Contributors

*Rosha McCoy, M.D., FABM

*James J. McKenna, Ph.D.

*Lawrence Gartner, M.D., FABM

Protocol Committee

Caroline J. Chantry, M.D., FABM,

Co-Chairperson

Cynthia R. Howard, M.D., FABM,

Co-Chairperson

Ruth A. Lawrence, M.D., FABM

Kathleen A. Marinelli, M.D., FABM,

Co-Chairperson

Nancy G. Powers, M.D., FABM

*Lead author

For reprint requests: abm@bfmed.org



Yes! I want to help Prevent Shaken Baby Syndrome!

I would like to have a trainer call me with more information on:

- Shaken Baby Syndrome SBS 101
- Hospital Education Program
- School Based Curriculum
- Dads 101/Baby101
- Other _____

Name _____

Address _____

City _____

State _____ Zip _____

Phone _____

Fax _____

E-mail _____

Mail to:



Prevent Child Abuse
Vermont

PO Box 829
Montpelier, Vermont 05601-0829

E-mail: pcavt@pcavt.org
Website: www.pcavt.org

1-800-CHILDREN
(1-800-244-5373)

...because it shouldn't hurt to be a child!



The Shaken Baby Syndrome/ Abusive Head Trauma Prevention Program



TRAINING WORKSHOPS
TO PROMOTE PUBLIC AWARENESS
ON THE DANGERS OF
SHAKING A BABY

This program is generously supported by grants from:



Department for Children and Families
Department of Health



A program of



Prevent Child Abuse
Vermont

A member of the Green Mountain, Franklin Grand Isle,
Rutland, and Windham County United Ways

The Shaken Baby Syndrome/ Abusive Head Trauma Prevention Program

The Shaken Baby Syndrome/Abusive Head Trauma Prevention Program provides free trainings, including curricula, educational materials and trainings of trainers for:

- Healthcare Providers — Nurses, Physicians, Midwives, Doulas
- School Personnel — School Nurses, Guidance Counselors, Health/Family and Consumer Sciences Educators
- Human Service Providers — Parent Educators, Early Childhood Educators, Caregivers, Substance Abuse Counselors, Social Workers, and Correctional Facilities Counselors
- Trainings for parents, caregivers, grandparents, and community members are also offered



Shaken Baby Syndrome (SBS) 101

SBS 101 is designed for the general public and is wonderful for parents, grandparents, human service providers, and all other interested Vermonters. Trainings provide a basic introduction to Shaken Baby Syndrome, the cause, and outcomes of shaking a baby, as well as why babies cry and how to console them. This curriculum helps participants to identify stressors and safe ways to manage their frustrations.

Hospital Education Program for Maternity Services

The hospital education program is designed for nurses and healthcare providers who provide care to new and expectant parents. This curriculum provides the tools and materials needed for healthcare providers to educate parents about safely caring for their newborns. Trainings for parents focus on crying patterns, how to cope with an inconsolable crying infant, and how to deal with their own frustrations. It is comprehensive, yet concise, and respects the time constraints health professionals face.



The School-Based Curriculum on Shaken Baby Syndrome/Abusive Head Trauma for Middle and High School Students

The school-based curriculum is designed for teachers to incorporate into their health education curriculum. It is easy to use and introduces students to Shaken Baby Syndrome. It includes classroom discussion ideas, quizzes and *Elijah's Story* video. The curriculum educates students about the medical aspects of shaking injuries, what triggers a person to shake a baby, and safe ways to deal with the frustrations and stresses of caring for an infant. Students will learn appropriate stress management skills.

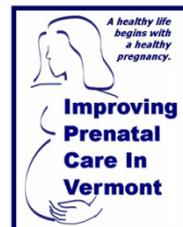
Dads 101/Baby 101

Dads 101 introduces new and expectant fathers and experienced caregivers to the basics of caring for their newborn. Trainings include information ranging from diaper changing to bathing. Shaken Baby Syndrome prevention is covered, as well as dealing with the frustrations of infant care and ways to safely care for a crying baby. Dads 101/Baby 101 helps caregivers feel more comfortable in their roles, thereby reducing the stresses that can lead to shaking.

TOGETHER WE CAN PREVENT SHAKEN BABY SYNDROME/ABUSIVE HEAD TRAUMA!

Improving Prenatal Care in Vermont Best Practice Provider Toolkit

Genetic Screening



Genetic Screening Improvement Checklist

Referral for genetic screening is recommended. However, there is not a single set of comprehensive best practice guidelines that exists. There may be limitations due to lack of insurance coverage. This collaborative chose to focus on Cystic Fibrosis (CF) because a) there is a high incidence in Caucasians and Vermont is 95% Caucasian, b) this was an opportunity to familiarize the practice teams with the CF standards distributed in 2003, and c) results from a practice survey indicated that practices were not routinely offering Cystic Fibrosis screening. Our hope was that IPCV could bring about consensus through a discussion regarding these guidelines.

Goals (developed in 2006 based on best practice guidelines, HP2010, and/or planning committee consensus)

1. 95% of eligible (Caucasian and Ashkenazi Jew) pregnant women will be offered a screening test for cystic fibrosis.
2. 95% of pregnant women will be offered a complete genetic risk assessment (includes a genetic screening questionnaire and screening test [Ultrascreen, Quad Marker]).

Cystic Fibrosis

Assess

- Offer Cystic Fibrosis screening to all Caucasians and Ashkenazi Jews. CF screening should be offered to women of all ethnicities with clear risk explanations
- Recommended screening tools are provided online

General Genetic Screening

Assess

- Use a *thorough* family history questionnaire for initial screening AND offer screening test (Ultrascreen, Quad Marker). IPCV recommends using the March of Dimes Foundation's Preconception/Prenatal Family Health History Questionnaire found at http://www.marchofdimes.com/Your_family_health_historypreconceptionprenatal.pdf
- Document if patient declines screening.

Intervene

There are numerous indications for Referral to Genetic Counseling (based on positives from screening) Including:

- Family history of children with multiple congenital malformations
- Family history of mental retardation/developmental delays of unknown etiology
- Family history of known or suspected metabolic disorder: neonatal deaths, failure to thrive, organomegaly, loss of developmental milestones
- Family history of common birth defects, such as cleft lip/palate, neural tube defects, clubfoot, congenital heart disease
- Family history of child with unusual appearance, especially accompanied by failure to thrive or sub optimal psychomotor development
- Known familial chromosomal abnormality
- Families with known hereditary conditions and/or questions about recurrence risks
- Recurrent pregnancy loss/stillbirth
- Couples of "advanced age" (females over 35 and/or males over 55)
- Parents who are first degree relatives
- Couples who request testing or more information about genetic conditions that have a higher incidence in their ethnic group
- Couples with questions about prenatal diagnosis for any disorder
- Pregnant women exposed to potential teratogens i.e. radiation, chemicals, certain medications such as anticonvulsants, anticoagulants, antimetabolites, recreational drugs including alcohol, certain viral agents, and very high fevers

- Pregnant women who have a hereditary disorder (PKU, homocystinuria, sickle cell, Tay Sachs, etc)
 - Pregnant women with an abnormal multiple marker screen/MSAFP/ultrasound
- Discuss with patients who have an increased risk. Documentation of discussion, education, and referral as appropriate. Refer or provide in-office counseling as available. Document if patient declines referral.

Follow-up

- Ensure appointment with genetic counselor was kept by patient
- Document consultation in chart

Suggestions for Monitoring Your QI Efforts

To assess whether your intended change in practice is occurring and is being documented, regularly (i.e., quarterly) review patient charts within the first and third trimesters for the following indicators:

- Was patient screened for cystic fibrosis?
- Is there documentation of a patient's decision to decline screening?
- Was patient screened for genetic risk using a thorough questionnaire (as defined within your practice)?
- Was a genetic screening test performed?
- Were all genetic test results available in the chart?

Resources

- Foundation for Blood Research at <http://www.fbr.org>, PO Box 190, 8 Science Park Road, Scarborough, ME 04070-0190, Phone: (207)883-4131.
- Institute for Clinical Systems Integration (<http://www.icsi.org>)
- GeneTests – <http://ncbi.nlm.nih.gov/sites/GeneTests>
- Mountain State Genetics Network (MoSt GeNe) – <http://www.mostgene.org>
- Down Syndrome Health - <http://www.ds-health.com>
- New England Regional Genetics Group , PO Box 670, Mount Desert, ME 04660, Phone: 207.288.2704 Understanding Genetics: A New England Guide for Patients and Health Professionals, www.nergg.org/resources.php
- Cystic Fibrosis Foundation: www.cff.org
- March of Dimes Web site: <http://www.marchofdimes.com> (English) or <http://www.nacersano.org> (Spanish). To order a catalog or multiple copies of materials, call 1-800-367-6630.
 - Genetic Screening Pocket Facts (fact card)
 - Genetics & Your Practice (CD-ROM)
 - Fetal Alcohol Syndrome Tutor (CD-ROM)
 - Genetic Counseling (booklet) (also available in Spanish)
 - Newborn Screening (brochure)
 - Newborn Screening Tests (fact sheet)
 - Maternal Blood Screening (fact sheet)
 - Genetic Issues for Perinatal Nurses, 2nd Edition (nursing education)
 - Embryonic and Fetal Evaluation During Pregnancy (nursing education)

References

- American College Obstetrics and Gynecology (2007) Practice Bulletin No. 77. Fetal Genetics Screening for Chromosomal Abnormalities
<https://www.sfm.org/attachedFiles09/pb077.pdf>



Fact Sheet: Taking a Family History

Some patients or families may be reluctant to share details of family members' problems or may not be aware of past generations' health and social histories. Click below to learn more about some key issues related to taking a family history:

- Key points for taking a family history
- Common patient questions and misperceptions
- Sensitive topics
- Consanguinity
- Non-paternity
- Cultural issues
- Using interpreters

Key points

- Set aside adequate time and establish a comfortable atmosphere.
- Ask the questions in the patient's native language
- Ask open-ended questions and be mindful of more than one possible answer.
- Give simple instructions like: "I'd like to ask you some questions about the health of the people in your family. This information is an important part of providing you with appropriate medical care."
- Invite the patient to view the questionnaire (or pedigree), as you ask questions.
- Explain the potential benefits, limitations, and risks of family history information (for more information see Benefits, limitations, and risks).
- Explain the potential implications (medical, financial, ethical, legal, psychosocial) of the history to themselves and the family.
- Assess patient ideas, concerns, religious and cultural beliefs, and misperceptions.
- Recognize cultural issues that may impact accuracy and/or the interpretation of the family history information. Encourage and remind the patient to consider extended family members, as well as immediate family members (e.g., duty to warn).
- Inquire about specific disorders using both common and medical terminology.
- Avoid jargon such as "positive" and "negative," "mutation" and "mutant," "good genes" and "bad genes."
- Document the ability of the patient and/or family to provide accurate, up-to-date information. For example, place "quotation marks" around descriptions given by the patient that seem vague or unclear.
- Make sure the information collected is dated and signed by the patient or guardian providing the information.

Common patient questions and misperceptions

You may hear questions like:

- Why do you want this information?
- Who will see this information?
- Will I lose my insurance?
- Could I lose my job?
- Will I face discrimination or be stigmatized by others?
- Is my family history of _____ "bad?"
- Is my family history of _____ genetic?

You may hear misperceptions such as:

- Since no one else in my family has this disorder, it isn't genetic.
- The person caused that birth defect; it's his/her fault.
- He was born with that problem, so it must be genetic.
- Since the people in my family with the problem (e.g., breast cancer) are all women, it can only be passed through women.
- I resemble my father and he has the disorder, so I know I will get it too.
- All my children and siblings are healthy, so we can't have or be carriers of that disorder.
- If the condition is autosomal recessive and my child has the condition, then my next three children will be healthy.

Sensitive topics

You will likely encounter sensitive issues as part of the family history process. These may include:

- Undisclosed adoption
- Non-paternity
- Causes of deaths of family members
- Accidents
- Suicide
- Mental illness
- Substance abuse
- Pregnancy termination
- Infertility
- Race/ethnicity
- Rape/incest

(Adapted from Bennett, RL, 2000, *Pedigree parables*, *Clin Genet*. 58: 241-249.)

Consanguinity

This section focuses on issues related to consanguinity and non-paternity—two common, often sensitive, subjects that may impact the accuracy of your assessment and subsequent patient education/management decisions.

Although many people in Western cultures view marriage between close relatives as a social stigma, it is legal in some states and it is the custom in some cultures

For purposes of accurate genetic risk assessment, it is crucial to elicit a history of consanguinity. Never assume that a couple does not share common relatives or make assumptions about how they may feel about it. These questions may help you find the right language to ask questions on this topic:

- Is there a chance that you and your (spouse/partner) have any relatives in common?
- Is there any way you could be cousins?
- Is anyone in your family related to anyone in your (spouse's/partner's) family, other than by marriage?
- Is there a chance you and your spouse could be related other than by marriage?

When you identify a rare disorder in a family, it may be necessary to specifically rule out the possibility of consanguinity by questioning the patient about the maiden names of certain females, geographic origin of grandparents or more distant relatives.

When you identify consanguinity in couple, it is most often a union between first cousins or more distant relatives. Though the chance for a child with a birth defect, genetic condition or other abnormality is higher for consanguineous couples than for unrelated couples, it is usually still relatively low. For example, first cousins have a 2-3% increased chance, above the 3-4% general population chance, for a child with a significant birth defect. (View a table showing consanguinity risks.)

More information about consanguinity

Consang.net is an online resource that includes background, clinical and genetic information about consanguinity. For information on assessing risks associated with consanguinity, see our resources and tools section. In particular, you may find the following resources helpful:

- Bennett RL. *The Practical Guide to the Genetic Family History*. 1999. New York: John Wiley and Sons.
- Robinson A, Linden MG. 1993. *Clinical genetics handbook*. 2nd ed. Cambridge: Blackwell Scientific Publications, Inc.
- Kingston HM. 2002. *ABC of Clinical Genetics*, 3rd ed. London: BMJ Books.

Non-paternity

It is estimated that non-paternity (also called misattributed paternity) is present in up to 10% of all pregnancies (Bennett, 1993). It is important to inform patients before you obtain a family history that non-paternity may become apparent once a complete family history is obtained. This is especially true when drawing a pedigree.

Non-paternity can confuse the interpretation of a family history. Whenever a family history doesn't "add-up" or make sense, consider non-paternity as a factor. Such scenarios commonly occur when evaluating a family history of an autosomal recessive condition, as (except in rare circumstances) both parents of an affected individual are almost always carriers. If only one parent (the mother) is a carrier, consider the possibility of non-paternity; however, keep in mind that uniparental disomy can also explain an apparent case of non-paternity.

When you suspect non-paternity, it is advisable to speak with the woman alone to clarify the situation, and determine if/how she would like her partner or other family members to be informed.

Culture, attitudes and behavior

In a medical setting, culture and religion can affect risk perception, desire to know information, decision-making and responses to particular results. As you consider cultural and religious influences, avoid generalizing and stereotyping. Each member of a culture or a religion is still an individual and brings his or her own beliefs to the visit.

- **Decision-making:** Who participates in the decision-making process? Is the individual empowered to make his or her own decisions or must others be consulted? If others need to be consulted, who are they? The health care professional may want to invite them, with the patient's consent, to the visit, too.
- **Views of disease and health:** What are the cultural or religious attitudes about disease? What causes disease? Is it acceptable to have disease? Are there specific diseases (possibly because they affect a particular part of the body) that provoke negative attitudes? How is death viewed within the culture or religion? Is it accepted calmly or something to be warded off? What are the beliefs about afterlife?
- **Gender:** What are the attitudes regarding being female or male? To what extent does this affect other cultural/religious beliefs? For example, is decision-making viewed differently within the culture/religion for a woman and for a man?
- **Family:** What role does family play? To what extent is the individual a separate entity from the family? When the individual and family are closely intertwined, it will be important to understand the attitudes and values of the family (caregivers) as well.
- **Privacy:** Is personal or family medical information viewed as confidential and therefore withheld from those outside the family, including health care professionals? In the culture, is there potential for a negative consequence (to the patient) for sharing private information about the health of relatives?
- **Western medicine:** What does the culture/religion believe about healing? Are there alternatives to Western medical practice? What is the confidence level in each of the healing alternatives?
- **Authority:** Who are the authority figures within the culture/religion? What does authority mean? Is authority to be followed or can it be challenged? If health care professionals are viewed as authority figures, how will members of the culture/religion respond to a shared decision-making approach?
- **Invasive procedures:** How does the culture/religion feel about invasive procedures (e.g., amniocentesis, blood draw)? Are there procedures or treatments that cannot be performed on the body?
- **Childbearing:** How important is having children within the culture/religion? Is there a stigma attached to a child that is disabled or otherwise different? Is there a preferred gender for the child?
- **Influence over life events:** To what extent can or does the individual believe he can influence the things that happen to him? Does the individual believe in fate or a predestined outcome?

For information on how a particular religion views health and disease, see the "Selected Religions' Responses to Health Events," a table summarizing the beliefs of 12 religious traditions with respect to health-related events.

Using interpreters

In caring for patients from cultures or religions different from your own, you may encounter language barriers and it may be appropriate to enlist the assistance of an interpreter. Below are some key points to consider when using interpreters to collect family history information and for other aspects of the clinical care:

- If at all possible, avoid using family members and friends as interpreters because:
 - Patients will not always reveal intimate details.
 - Your question to the patient may be "edited."
 - The information you receive back may be inaccurate or incomplete.
- Orient the interpreter to the purpose of the family history and any relevant terminology or concepts.
- Discuss with the interpreter the manner in which you will conduct the session and the time allotted.
- Ask questions one (or only a few) at a time allowing the interpreter to translate and elicit feedback before proceeding to the next question(s).
- Observe patient's verbal and non-verbal cues for evidence of any miscommunications or misunderstandings.
- Direct your questions to the patient and maintain an unobstructed view of the patient.
- Recognize that there is an established code of ethics for interpreters.

More information on using translators:

- American Translators Association (ATA) web site Site provides information about the ATA and the translation and interpretation professions.
- Registry of Interpreters for the Deaf A national membership organization of professionals who provide sign language interpreting/transliterating services for Deaf and Hard of Hearing persons.
- Society of Medical Interpreters A nonprofit organization dedicated to promoting professionalism and excellence in interpretive services.
- Discussing implications of family history information

Preconception/Prenatal Family Health History Questionnaire



Today's date: _____ Person completing questionnaire: _____

| | Patient | Partner/spouse |
|---|--|--|
| Name | | |
| Date of birth | | |
| Occupation | | |
| Marital status (married, divorced, widowed, single) | | |
| Last grade completed | | |
| Height | | |
| Weight | | |
| Adopted | <input type="radio"/> Yes <input type="radio"/> No | <input type="radio"/> Yes <input type="radio"/> No |

Past medical history (check all that apply)

| | You | Partner | Explain checked items, include year or age |
|--------------------------|-----------------------|-----------------------|--|
| Surgeries | <input type="radio"/> | <input type="radio"/> | _____ |
| Hospitalizations | <input type="radio"/> | <input type="radio"/> | _____ |
| Major illnesses | <input type="radio"/> | <input type="radio"/> | _____ |
| Chronic medical problems | <input type="radio"/> | <input type="radio"/> | _____ |
| Allergies | <input type="radio"/> | <input type="radio"/> | _____ |
| Learning problems | <input type="radio"/> | <input type="radio"/> | _____ |
| Behavior problems | <input type="radio"/> | <input type="radio"/> | _____ |
| Mental illness | <input type="radio"/> | <input type="radio"/> | _____ |

Ethnic Background

Where did your and your partner's ancestors come from before the United States? (check all that apply)

| | You | Partner |
|--|-----------------------|-----------------------|
| Mediterranean (e.g., Italian, Greek) | <input type="radio"/> | <input type="radio"/> |
| European Caucasian (e.g., Irish, English, German) | <input type="radio"/> | <input type="radio"/> |
| African or African-American | <input type="radio"/> | <input type="radio"/> |
| Ashkenazi Jewish | <input type="radio"/> | <input type="radio"/> |
| Hispanic (e.g., Puerto Rican, Dominican, Mexican) | <input type="radio"/> | <input type="radio"/> |
| Cajun or French Canadian | <input type="radio"/> | <input type="radio"/> |
| Southeast Asian (e.g., Laotian, Chinese, Vietnamese) | <input type="radio"/> | <input type="radio"/> |
| Indian (from India) | <input type="radio"/> | <input type="radio"/> |
| Middle Eastern (e.g., Lebanese, Iranian, Egyptian) | <input type="radio"/> | <input type="radio"/> |
| Native American | <input type="radio"/> | <input type="radio"/> |
| Other _____ | <input type="radio"/> | <input type="radio"/> |

Preconception/Prenatal Family Health History Questionnaire



Date of first day of last menstrual period _____

Your age _____ If pregnant: your age at delivery _____ Current age of partner _____

Do you:

(if pregnant, also include all exposures since last menstrual period)

| | Yes | No |
|--|-----------------------|-----------------------|
| Take any medications (prescription or non-prescription)? | <input type="radio"/> | <input type="radio"/> |
| Take a daily multivitamin or folic acid supplement? | <input type="radio"/> | <input type="radio"/> |
| Drink alcohol (beer, wine, hard liquor)? | <input type="radio"/> | <input type="radio"/> |
| Smoke cigarettes? | <input type="radio"/> | <input type="radio"/> |
| Use any recreational drugs (cocaine, marijuana, heroin)? | <input type="radio"/> | <input type="radio"/> |

For any "yes" answers, describe below, including amounts and dates, if known.

| Have you had: | Yes | No | Have you been exposed to: | Yes | No |
|----------------------------|-----------------------|-----------------------|---|-----------------------|-----------------------|
| Chicken pox (varicella) | <input type="radio"/> | <input type="radio"/> | Radiation (X-rays) | <input type="radio"/> | <input type="radio"/> |
| Fifth disease (parvovirus) | <input type="radio"/> | <input type="radio"/> | Chemicals (e.g., organic solvents, mercury) | <input type="radio"/> | <input type="radio"/> |
| Cytomegalovirus | <input type="radio"/> | <input type="radio"/> | Raw meat (e.g., eaten steak tartar) | <input type="radio"/> | <input type="radio"/> |
| Toxoplasmosis | <input type="radio"/> | <input type="radio"/> | | | |

For any "yes" answers, describe below, including dates and details, if known.

Did your mother take a medication called

"DES" while pregnant with you? Yes No I do not know

Were you born preterm? Yes No I do not know If so, how early? _____ weeks

| Do you have a personal history of: | Yes | No | Please list total number of prior: |
|---|-----------------------|-----------------------|---|
| Thyroid disease | <input type="radio"/> | <input type="radio"/> | Pregnancies _____ |
| Diabetes | <input type="radio"/> | <input type="radio"/> | Full-term births _____ |
| Seizures | <input type="radio"/> | <input type="radio"/> | Multiple gestation _____ |
| Hyperphe or phenylketonuria (PKU) | <input type="radio"/> | <input type="radio"/> | pregnancies (e.g., twins) _____ |
| Deep vein thrombosis | <input type="radio"/> | <input type="radio"/> | Preterm births (<37 wks) _____ |
| Lupus | <input type="radio"/> | <input type="radio"/> | Preterm labor (<37 wks) _____ |
| Other chronic conditions: _____ | <input type="radio"/> | <input type="radio"/> | Stillbirths _____ |
| | | | Miscarriages (<24 wks) _____ |
| | | | Elective abortions _____ |
| | | | Living children _____ |

Preconception/Prenatal Family Health History Questionnaire



For the questions below, please check the boxes for those conditions that have occurred in your or your partner's/ spouse's families. Include yourself AND your spouse/partner, as well as your and his siblings (full and half), parents, children, grandparents, aunts, uncles, nieces, nephews and first cousins, if possible.

| | Your Family | Partner's Family | Who is affected? (you, parent, sib, etc.) |
|--|-----------------------|-----------------------|--|
| Anencephaly or spina bifida (openings in the skull or spine) | <input type="radio"/> | <input type="radio"/> | _____ |
| Hydrocephalus (water on the brain) | <input type="radio"/> | <input type="radio"/> | _____ |
| A large, small or unusually shaped head | <input type="radio"/> | <input type="radio"/> | _____ |
| Blindness or other vision problems | <input type="radio"/> | <input type="radio"/> | _____ |
| Cataracts | <input type="radio"/> | <input type="radio"/> | _____ |
| Glaucoma | <input type="radio"/> | <input type="radio"/> | _____ |
| Deafness or significant hearing loss | <input type="radio"/> | <input type="radio"/> | _____ |
| Unusual shape, size or position of ears | <input type="radio"/> | <input type="radio"/> | _____ |
| Cleft lip and/or cleft palate (opening in lip and/or roof of the mouth) | <input type="radio"/> | <input type="radio"/> | _____ |
| Dental problems (missing, extra or abnormally formed teeth) | <input type="radio"/> | <input type="radio"/> | _____ |
| Speech problems | <input type="radio"/> | <input type="radio"/> | _____ |
| Congenital heart defect (e.g., "hole" in the heart) | <input type="radio"/> | <input type="radio"/> | _____ |
| Heart attack or coronary artery disease | <input type="radio"/> | <input type="radio"/> | _____ |
| Respiratory disease or chronic lung condition | <input type="radio"/> | <input type="radio"/> | _____ |
| Asthma | <input type="radio"/> | <input type="radio"/> | _____ |
| Allergies | <input type="radio"/> | <input type="radio"/> | _____ |
| Cystic fibrosis | <input type="radio"/> | <input type="radio"/> | _____ |
| Alpha-1-antitrypsin deficiency | <input type="radio"/> | <input type="radio"/> | _____ |
| Pyloric stenosis | <input type="radio"/> | <input type="radio"/> | _____ |
| Birth defects of the bowels or intestines | <input type="radio"/> | <input type="radio"/> | _____ |
| Kidney problems | <input type="radio"/> | <input type="radio"/> | _____ |
| Polycystic kidneys, missing or extra kidneys | <input type="radio"/> | <input type="radio"/> | _____ |
| Genital or urinary tract defects | <input type="radio"/> | <input type="radio"/> | _____ |
| Congenital hip dislocation (born with dislocated hips) | <input type="radio"/> | <input type="radio"/> | _____ |
| A birth defect of an arm or a leg | <input type="radio"/> | <input type="radio"/> | _____ |
| Unusually formed bones or many broken bones | <input type="radio"/> | <input type="radio"/> | _____ |
| Scoliosis (curved spine) | <input type="radio"/> | <input type="radio"/> | _____ |

Preconception/Prenatal Family Health History Questionnaire



| | Your Family | Partner's Family | Who is affected? (you, parent, sib, etc.) |
|---|-----------------------|-----------------------|--|
| Unusually formed hands or feet (including club foot) | <input type="radio"/> | <input type="radio"/> | _____ |
| Very short or tall stature | <input type="radio"/> | <input type="radio"/> | _____ |
| Dwarfism | <input type="radio"/> | <input type="radio"/> | _____ |
| Marfan syndrome | <input type="radio"/> | <input type="radio"/> | _____ |
| Muscle weakness or poor coordination | <input type="radio"/> | <input type="radio"/> | _____ |
| Muscular dystrophy | <input type="radio"/> | <input type="radio"/> | _____ |
| Mental retardation or developmental delay | <input type="radio"/> | <input type="radio"/> | _____ |
| Learning disabilities or a slow learner | <input type="radio"/> | <input type="radio"/> | _____ |
| Attention deficit or hyperactivity | <input type="radio"/> | <input type="radio"/> | _____ |
| Autism | <input type="radio"/> | <input type="radio"/> | _____ |
| Seizures, epilepsy or convulsions | <input type="radio"/> | <input type="radio"/> | _____ |
| Down syndrome or other chromosome syndrome | <input type="radio"/> | <input type="radio"/> | _____ |
| Fragile X syndrome | <input type="radio"/> | <input type="radio"/> | _____ |
| Tay-Sachs disease | <input type="radio"/> | <input type="radio"/> | _____ |
| Canavan disease | <input type="radio"/> | <input type="radio"/> | _____ |
| Phenylketonuria (PKU) | <input type="radio"/> | <input type="radio"/> | _____ |
| Gaucher disease | <input type="radio"/> | <input type="radio"/> | _____ |
| Alzheimer's disease or other form of dementia | <input type="radio"/> | <input type="radio"/> | _____ |
| Huntington's disease | <input type="radio"/> | <input type="radio"/> | _____ |
| Neurofibromatosis | <input type="radio"/> | <input type="radio"/> | _____ |
| Schizophrenia or other mental illness | <input type="radio"/> | <input type="radio"/> | _____ |
| Manic depression (bipolar) | <input type="radio"/> | <input type="radio"/> | _____ |
| Unipolar disorder (severe depression) | <input type="radio"/> | <input type="radio"/> | _____ |
| Birthmarks or unusual growths on skin | <input type="radio"/> | <input type="radio"/> | _____ |
| A chronic skin condition (e.g., eczema) | <input type="radio"/> | <input type="radio"/> | _____ |
| Patches of different colored hair | <input type="radio"/> | <input type="radio"/> | _____ |
| Patches of different colored skin | <input type="radio"/> | <input type="radio"/> | _____ |
| Bleeding or clotting disorder (e.g., hemophilia) | <input type="radio"/> | <input type="radio"/> | _____ |
| Hereditary anemia (e.g., thalassemia, sickle cell, other) | <input type="radio"/> | <input type="radio"/> | _____ |
| Deep vein thrombosis | <input type="radio"/> | <input type="radio"/> | _____ |
| Factor V Leiden | <input type="radio"/> | <input type="radio"/> | _____ |
| High cholesterol | <input type="radio"/> | <input type="radio"/> | _____ |
| Stroke | <input type="radio"/> | <input type="radio"/> | _____ |
| Hemochromatosis (iron storage condition) | <input type="radio"/> | <input type="radio"/> | _____ |

Preconception/Prenatal Family Health History Questionnaire



| | Your Family | Partner's Family | Who is affected? (you, parent, sib, etc.) |
|--|-----------------------|-----------------------|--|
| Diabetes | <input type="radio"/> | <input type="radio"/> | _____ |
| Thyroid disease | <input type="radio"/> | <input type="radio"/> | _____ |
| High blood pressure or hypertension | <input type="radio"/> | <input type="radio"/> | _____ |
| Breast cancer | <input type="radio"/> | <input type="radio"/> | _____ |
| Ovarian cancer | <input type="radio"/> | <input type="radio"/> | _____ |
| Colon cancer | <input type="radio"/> | <input type="radio"/> | _____ |
| Other cancers or tumors | <input type="radio"/> | <input type="radio"/> | _____ |
| Born preterm (<37 weeks) | <input type="radio"/> | <input type="radio"/> | _____ |
| Stillbirths | <input type="radio"/> | <input type="radio"/> | _____ |
| Infant or childhood deaths | <input type="radio"/> | <input type="radio"/> | _____ |
| Two or more miscarriages or pregnancy losses (in the same person) | <input type="radio"/> | <input type="radio"/> | _____ |
| Infertility or sterility (unable to get pregnant or have children) | <input type="radio"/> | <input type="radio"/> | _____ |
| Premature ovarian failure (early menopause) | <input type="radio"/> | <input type="radio"/> | _____ |
| Primary amenorrhea (never had a period) | <input type="radio"/> | <input type="radio"/> | _____ |

Have you, your partner/spouse, or anyone in your family had genetic testing? **Yes** **No**
If yes, please explain:

Are you and your partner/spouse related as first cousins or in any other way as blood relatives? **Yes** **No**
If yes, please explain:

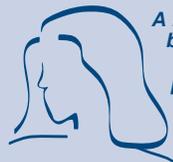
For office use only

Significant findings:

Recommendations:

Date discussed with patient/family _____ HCP name/initials _____

Patient/parent/guardian signature X _____



*A healthy life
begins with
a healthy
pregnancy.*

**Improving
Prenatal
Care In
Vermont**



Vermont Child Health Improvement Program
University of Vermont Department of Pediatrics
Burlington, Vermont
(802) 847-4220
<http://www.vchip.org>