

REPORT TO THE COMMUNITY 2013-2014

Vermont Educational Loan Repayment

The purpose of this state loan repayment program is to increase access to care in underserved communities and to address the health professional shortages that cause disparities in access to health care in Vermont. The program strategically responds to the most pressing health care workforce needs in the state and awards go directly to pay educational loans (lender is requested to apply payment directly to loan principal to have the greatest impact on debt reduction).



Psychiatrist Mark McGee, MD is a "Vermonters by choice," having grown up in Baltimore. Since his days as an undergraduate student at the University of Vermont (UVM), he is committed to living in Vermont and AHEC has contributed to that decision.

It began when he was a Freeman Medical Scholar at the UVM College of Medicine for four years: "The scholarship allowed me to have less burdensome student debt and made a difference in the specialty training I could choose," he notes. Completing a psychiatry residency at Fletcher Allen Health Care, he spoke with Dr. Fritz Engstrom (Frederick Engstrom, MD, Chief Medical Officer)

of the Brattleboro Retreat at Vermont Recruitment Day, an AHEC-sponsored event that brings together Vermont hospitals and health care organizations with UVM medical and health sciences students and residents to explore employment and clinical rotation opportunities.

Recently, he received Vermont Educational Loan Repayment (ELR) funding to further reduce his educational debt and make it possible for him to practice in a rural state. Last year, he participated in Vermont Recruitment Day again, this time as a representative for the Brattleboro Retreat.

Now living on a farm in Guilford with his wife and young son Finn, he comments that AHEC programs have made multiple ripple effects, all subtle but building to a substantial contribution. "Everything about being here fits: the people, the landscape, the community aspect, and in my work life, it's nice to be in a small medical community where I know my peers and colleagues throughout the state; I've done some policy advocacy work in the Legislature. There's a certain civility about knowing who these people are, whether we agree on issues or not: they are our neighbors and it creates a sense of community." ■



Vermont Academic Detailing Program

Vermont Academic Detailing sessions present an objective overview of what evidence from studies shows about various drugs, and non-drug therapies used to treat a medical condition. An academic detailer will visit a primary care office anywhere in the state of Vermont to present the latest evidence-based prescriber support and education for managing common but challenging primary care conditions. There is no pharmaceutical company sponsorship associated with the program.

One Continuing Medical Education (CME) credit is granted for each session. This program is made possible through funding from the Vermont Department of Health and there is no cost to prescriber participants or practices. During 2013-2014, 91 sessions were presented in all but one Vermont county. ■



"Our Family Medical practice has benefitted from the Vermont Academic Detailing Program for many years. We all agree that the physicians and pharmacists in academic

detailing have been thoroughly prepared and practical with their advice and receptive to our realities. Without a doubt it is the singularly most helpful hour of CME in any given year."

— David M. Coddair, MD,
Morrisville Family Health Care

Physician Placement Program Placed 20 Physicians in FY14

The objective of the Physician Placement Program is to recruit physicians to workforce shortage areas of Vermont, with an emphasis on rural and underserved areas. To accomplish this, the program works with UVM College of Medicine graduates and UVM Medical Center medical residents and fellows to match them to the practices where they are needed.

AHEC placed 20 physicians during the past year, including 12 in primary care and eight in specialty care. Thirteen physicians were placed in rural counties, with three of these placed at an FHQC or RHC (rural/underserved). Three of the specialty care placements were in psychiatry.

As of June 30, 2014, 100 vacancies were

posted with AHEC: 44 in primary care and 56 in specialty care; AHEC's efforts continue in FY15.

The Physician Placement Program responds to Vermont state physician recruitment needs and is a credible and reliable resource for Vermont recruiters and physicians. ■

CollegeQuest to Health Careers

CollegeQuest to Health Careers is a workforce development program designed to prepare Vermont high school students for college admission and degree completion in a health-related field of study. Vermont regional AHECs work in partnership with the Vermont Student Assistance Corporation (VSAC) to recruit applicants, provide training in health career and college preparation, and to provide continuing support for participants throughout their senior year in high school. Students receive a stipend for completing the program to apply toward college expenses.

In the words of one 2013 participant: "CollegeQuest has taught me the skills necessary to get into and to be successful in college. It has also taught me about possible career paths in health care that I never knew about. It has also given me a taste of college life encompassing the social and academic facets."

The program is specifically tailored to helping low-income and first-in-family students overcome barriers to post-secondary success. Longitudinal tracking has shown that 58% of program completers choose to remain in Vermont to attend college. When choosing a location to practice, health care professionals are influenced by where they were raised and where they are educated; being rural-raised and rural trained are predictors for rural practice.¹ These bright, motivated students represent Vermont's future health care workforce. And the program's early outcomes are promising.

CollegeQuest is in its fourth year. Seventy-one high school students have completed the 6-week residential program. The program involves a structured curriculum, visits to colleges and medical centers, and a rich interaction with health professionals and educators who make up the faculty.

Three months after completing the program, participants surveyed reported that because they attended CollegeQuest, they took more challenging courses in their senior year; were involved in more health-related activities outside of school; and their families completed the Free Application for Federal Student Aid (FAFSA), which is a strong predictor of post-secondary enrollment. In a self-report survey completed at the time of high school graduation, 95% (n=35) of respondents said that they plan to pursue a degree in a health-related field.

Of the 48 CollegeQuest program completers from 2012 and 2013, 96% were registered for college in the fall after their senior year. Twenty-eight CollegeQuest students (58%) are registered at a Vermont college, which is a predictor of future employment in Vermont.

Ninety-one percent (22 of 24) of students remain enrolled in their second year of college. Continued enrollment after the first year in college is a strong predictor of degree attainment; typically 25% of student leave college during or immediately following their freshman year (New England Board of Higher Education, 2006). Statistically, CollegeQuest completers are on track for finishing their post-secondary education at a much higher rate than their peers in Vermont.

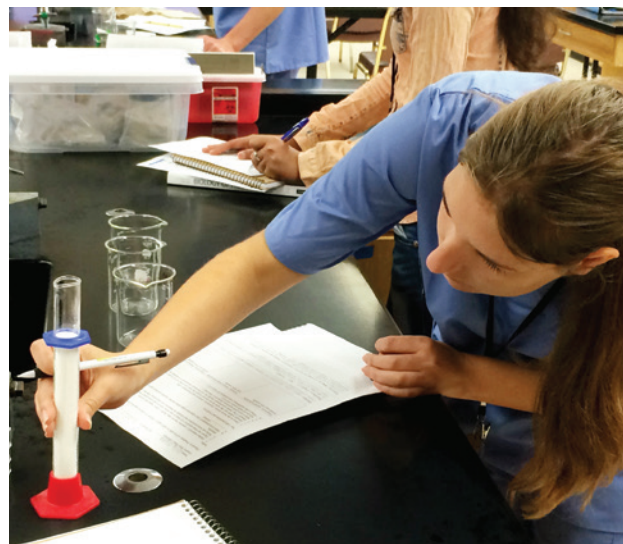
CollegeQuest to Health Careers is a program of the Vermont AHEC Network, made possible by funding from the Health Careers Opportunity Program (HCOP) of the federal Health Resources and Services Administration (HRSA). ■



Jenna Flint, of Winooski, and Vytas Nielsen, of Brandon, work together on a dissection lab at CollegeQuest.



Elizah French, from Spaulding High School, and Vytas Nielsen, from Otter Valley Union School explore the patient simulation lab at UVM.



Kelly Myrto, of Waitsfield, VT is at work in Human Biology class.

¹ Specialty and Geographic Distribution of the Physician Workforce: What influences Medical Student and Resident Choices? (March, 2009). A study by the Robert Graham Center, American Academy of Family Practice Center for Policy Studies. Available at: <http://www.graham-center.org/online/etc/medialib/graham/documents/publications/mongraphs-books/2009/rgcmo-specialty-geographic.Par.0001.File.tmp/Specialty-geography-compressed.pdf>

Summer Youth Programs: MedQuest and Advanced MedQuest

AHEC Summer 2014 Programs exposed Vermont students to health care career opportunities through week-long MedQuest programs attended by 100 high school students, Advanced MedQuest attended by 16 high school students, and CollegeQuest which was completed by 23 Vermont high school seniors.

Northeastern Vermont AHEC MedQuest students rated the job shadowing opportunities high on their preference list but most enjoyed learning about the cardio and respiratory systems in preparation for dissection of sheep hearts in the Lyndon State College science lab.

A highlight of the Champlain Valley AHEC MedQuest at the University of Vermont was a three-part dental career section which included panel discussions with several dental professionals about their careers, a session on the effect of fluoride in water when students made their own toothpaste, and an opportunity to actually drill and fill a cavity on the new dental simulator in the UVM College of Medicine Simulation Lab, under the supervision of David Averill, DDS, a local dentist.

Students in Southern Vermont AHEC's MedQuest and Advanced MedQuest programs culminated a week of learning about anatomy and medical terminology by watching live surgery via telemedicine; workshops on how to start an IV as well as suture a small wound were also



Advanced MedQuest students at the University of Vermont.

highlights, and students always enjoy the opportunity to do job shadows of health career professionals. In all, 56 students completed 224 job shadows and were amazed by the variety of health care careers available. ■



Michaela Sterling, left, a junior at Rochester High School, and David Perry, a graduate of Mount Saint Joseph Academy in Rutland, (now a freshman at St. Michael's College), use a simulator in the UVM Simulation Lab during Advanced MedQuest.

Projects for Health Professions Students

The regional AHECs sponsored health professions students in community-based projects and enabled them to contribute to improving patient experiences.

Two medical students and a nurse practitioner student worked in the St. Johnsbury area to map area community resources for those navigating the local system of addiction treatment and recovery, to be used by treatment and recovery professionals and community partners. They developed a brochure and an online presentation to organize the resources in

user-friendly format.

In the Champlain Valley, a medical student and a nurse practitioner student developed culturally and linguistically sensitive lesson plans for healthcare professionals and students to use to introduce various healthcare topics to Vermont's Latino/a migrant farm workers. The lesson plans can be incorporated into programs that provide educational and health care services to Vermont migrant farm workers. Also at Champlain Valley AHEC, a Vermont college senior majoring in health sciences and

attending Gettysburg College in PA, worked on materials for personalized learning plans being implemented in three area high schools, updated the MedQuest Handbook and assisted in the development and delivery of the Cultural Competency workshop for MedQuest.

Southern Vermont AHEC hosted a medical student and a nurse practitioner student who organized and led a pilot seminar for patients at Mountain Health Center in Bristol about reducing stress and living healthier. ■

Office of Primary Care and Vermont

Pipeline

Pipeline programs reached 4,839 students, of which 1,688 were disadvantaged or minority students, in 72 schools. The activities include:

- 244 job shadow experiences.
- 112 classroom presentations to 1,593 students.
- Reached 3,246 students at career fairs.
- Focus on Health Careers Conference for 105 high school students from 30 schools.
- 45 students in Club Scrubs.
- 39 students at the Sophomore Summit Conference.
- 100 students attended MedQuest.
- 24 students completed CollegeQuest.
- 39 adult learners attended Health Career presentations.
- 102 seventh and eighth graders from 17 schools attended Kingdom Career Connection.

Health Professions Students

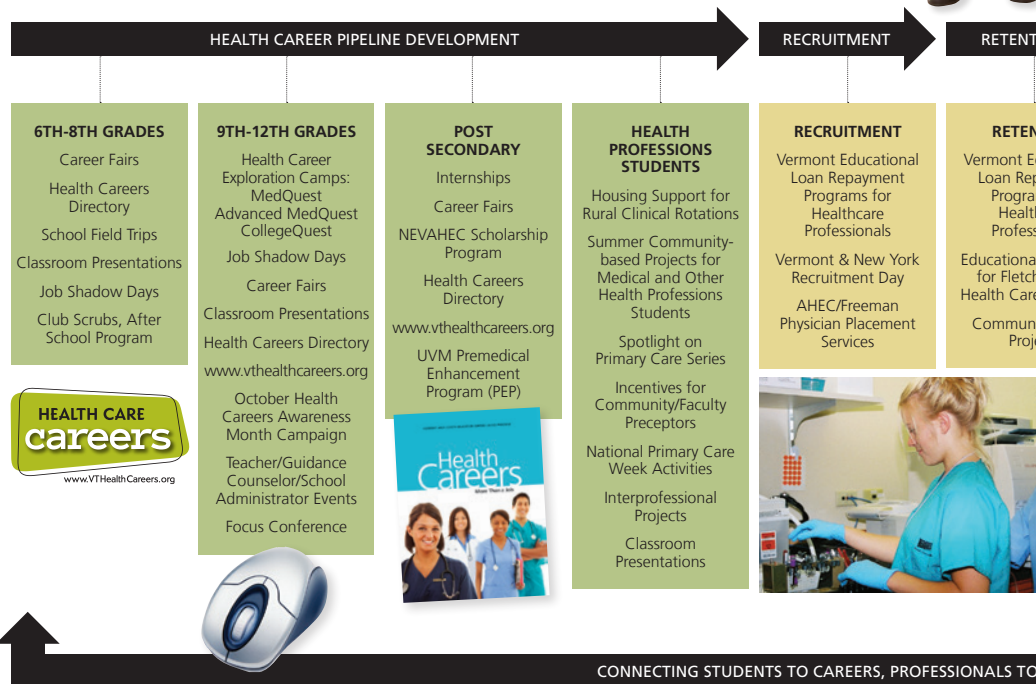
- 19 students were mentored and participated in job shadowing in the Pre-Medical Enhancement Program (PEP).
- 77 of the 106 students (73%) in the UVM College of Medicine Class of 2016 worked with AHEC during clinical rotations and/or summer projects.
- 53 students received AHEC housing during clinical rotations or summer projects.
- Five MedQuest alums in health career-related college programs completed paid internships as part of the College Student Internship program (C-SHIP) in southern Vermont.
- 451 participants attended the Spotlight on Primary Care series sessions for medical students.

UVM Office of Primary Care and the Vermont Area Health Education Centers (AHEC) Program

Encouraged by the State Legislature, UVM established the Office of Primary Care (OPC) in 1993 to focus the College of Medicine's commitment to primary care and community outreach in Vermont. OPC is actively involved in enhancing networks of community-based faculty, in strengthening teaching and research programs, and in preparing the workforce for the future.

The OPC was awarded federal funding to establish a statewide AHEC program in 1996, including three regional centers (Northeastern Vermont AHEC in St. Johnsbury, Champlain Valley AHEC in St. Albans, and Southern Vermont AHEC in Springfield), each a 501c-3 non-profit organization. Together, the Vermont AHEC Network is increasing the supply, geographic distribution, and education of Vermont's healthcare workforce, and providing a link between UVM's health professions training programs and Vermont's communities. The Vermont AHEC Network is a true academic-community partnership.

In 2014, the UVM OPC and VT AHEC Network provided 4,839 Vermont youth with health care careers experiences, worked with 224 providers precepting health professions students, delivered continuing education to 3,258 health care professionals, and placed 20 physicians in Vermont communities.



- 245 attendees networked with representatives of 13 hospitals and 13 other organizations at Vermont Recruitment Day 2013.
- A presentation of the documentary "The Hungry Heart" about Vermont's opiate addiction problem was attended by 260 medical students and faculty at the UVM College of Medicine.
- Sponsored an Interprofessional Exploration of Cuba's Primary Health

Care System including one week in Cuba for three medical students in advanced practice nursing, in dental school, and in social work.

- 224 Vermont preceptors of medical students were awarded continuing education funds through the Community Preceptor Recognition Program.

AHEC Network 2013-2014 Highlights



Overarching Aims

HEALTHCARE WORKFORCE

VT AHEC will improve access to high quality health care by promoting an appropriate and adequate healthcare workforce in Vermont.

COMMUNITY HEALTH SYSTEMS

VT AHEC will be engaged with, and responsive to, community health care needs throughout the state.

vtahec.org



RECRUITMENT AND RETENTION

educational
payment
for
care
professionals
programs
for Allen
Residents
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CONTINUING EDUCATION & QUALITY IMPROVEMENT (QI)

Behavioral Health & Primary Care Conference
Clinical Updates
Rural Health Symposium
Geriatrics Conference
Motivational Interviewing
Grand Rounds for School Nurses
Academic Detailing Program in Wise Prescribing
LNA & Direct Care Worker Trainings
Opioids Prescribing QI
Military Veterans' Health

WORKFORCE, RESEARCH & PLANNING

Nursing Workforce Summaries
Primary Care Practitioner Workforce Snapshot



TOOLS & RESOURCES FOR PRACTITIONERS

CME Incentives for Preceptors
Clinical Diagnostic Tools
Primarily Vermont Newsletter
Cultural Competency Manual and Training
Resource Directories (Mental Health, Substance Abuse)
PTOPHelp.org
Farm Health Task Force
Interprofessional Learning Summits
Professional Collaboratives

IMPROVING COMMUNITY SYSTEMS OF ACCESS & HEALTHCARE COORDINATION

Public Health/Primary Care/School Nurses Forums
Mental Health/Dental Health and Primary Care Integration
Integrating Healthcare and Community Resources
Patient Education Initiatives
Community-based Collaborations and Partnerships Respond to Emerging Needs
Members of Blueprint Community Health Teams
Pharmacists in Blueprint Pilot



Continuing Education

198 continuing education courses were offered to 3,258 participants. These include:

- 97 attendees at the Vermont Geriatrics Conference.
- 103 attendees at Bridging the Divide: Fostering collaboration between primary care, mental health, substance abuse and behavioral health professionals.
- 567 participants (484 were school nurses) took part in Grand Rounds for School Nurses at Vermont Interactive Technologies (VIT) sites.
- 564 participants in 91 Academic Detailing sessions in 13 of Vermont's 14 counties.
- The Cultural Competency Manual for Healthcare Professionals (www.cvahec.org) was maintained and expanded with a new section on Bhutanese refugees and updates to the LGBTQI section.

Community-Based

For news from Vermont's three regional Area Health Education Centers, check out their community-based web sites:

■ Champlain Valley AHEC:
www.cvahec.org
St. Albans (802) 527-1474

■ Northeastern Vermont AHEC:
www.nevahec.org
St. Johnsbury (802) 748-2506

■ Southern Vermont AHEC:
www.svahec.org
Springfield (802) 885-2126

Recruitment and Retention

- Administered the Vermont Educational Loan Repayment (ELR) Program for physicians, dentists, RNs and LPNs, advanced practice nurses, physician assistants, and nurse faculty/educators in the amount of \$970,000.

- Placed 20 physicians (12 in primary care and eight in specialty care); 13 were placed in rural counties, three of them in FQHCs/RHCs.
- 120 Freeman Medical Scholars are currently serving Vermonters.
- There were 447 applicants for ELR.
- Total debt of all ELR applicants = \$31,782,424.
- 130 applicants received ELR awards averaging between \$5,000-\$13,235.

COMMUNITIES, AND COMMUNITIES TO BETTER HEALTH.

An Inter-Professional Exploration of Cuba's Primary Healthcare System

In June, a group of University of Vermont faculty and students, and others, visited Cuba in order to get a firsthand look at the Caribbean country's healthcare system through a graduate course organized and led by Associate Dean for Primary Care Charles MacLean, M.D., and Liz Cote, Director of the Office of Primary Care and AHEC Program and offered in collaboration with Burlington College.

"It is well-documented that Cuba has a highly-regarded primary care system," says Dr. MacLean, who is a professor of medicine and an internal medicine physician. "In my role as associate dean, I am always interested in models of care."

The UVM Office of Primary Care (OPC) and AHEC Program was interested in developing a learning experience for health professionals and students to examine the Cuban system from all angles, and assembled a multi-disciplinary team to study how the socialist country's system is organized through as many different lenses as possible. The group of 17 included four College of Medicine faculty members, one College of Medicine staff member, three UVM medical students (two fourth-years and one first-year), a UVM/Fletcher-Allen clinical simulation laboratory technician and dental technician, a UVM social work graduate student, a UVM nurse practitioner student, a state legislator and UVM Department of Social Work faculty member, a UVM College of Nursing and Health Sciences faculty member, a dental student from the University of New England, and three members of the Burlington College faculty.

The course included reading and



A medical student studying in Cuba (far left) shares her perspective on Cuba's system with UVM medical students and faculty, and Vermont State Representative Ann Pugh (second from right).



Left to right: Jason Garbarino, RN, MSN, CNL, Clinical Instructor, UVM Department of Nursing, College of Nursing and Health Sciences; Kristy Haflett, RN (and UVM nurse practitioner student) at The UVM Medical Center; and a U.S. medical student enrolled at the Escuela Latinoamericana de Medicina (ELAM) in Cuba.

classroom discussions prior to the trip, and each student was required to keep a journal. Once in Cuba, the group visited hospitals, primary care clinics (called consultorios), community health clinics (called polyclinics), a natural disaster medical planning group, medical schools, a dental school, and more.

They found a healthcare system that is free for all Cubans and that is also very short on resources. "Despite a lack of resources, many of their health outcome measures are similar to ours," says Senior Associate Dean for Medical Education William Jeffries, Ph.D. "Conceptually and structurally, the polyclinics are similar to the U.S. Federally Qualified Health Centers (FQHCs) and inclusive of primary care, oral health care, and mental health care, but financially the resources are much more limited in Cuba," remarks Liz Cote. The group also noted with great interest that the clinics all display posters that describe the cost of services (such as an office visit, an ultrasound, or an operation) as a reminder to patients that, though the services are "free" to them, they have real and quantifiable costs.

For the course participants, the trip was a once-in-a-lifetime experience, says College of Medicine Class of 2015 member Benjamin Brown. "It opened my eyes to how other people view health and healthcare," he says. "They do what they do well with fewer resources. And people seemed generally proud of their healthcare system – and the care they were receiving. Does the average American feel that way about our system?"

The students completed individual research papers as well as a group presentation delivered on September 8th as part the University's Global Health Series and OPC's Spotlight on Primary Care Series. To learn more, visit www.vtahec.org, programs, AHEC summer projects. ■

Committed to Medicine through PEP

Justin Van Backer thought he would like to be a veterinarian when he was growing up in Wilmington, VT, so he job shadowed one and decided that was definitely not his career path. Instead, he became an emergency services worker in high school and has continued to work as an EMT in college and medical school. And when he selected which college to attend, "PEP" was a selling point in coming to the University of Vermont," he asserts. "PEP" is the UVM PreMedical Enhancement Program that allows undergraduates to explore their interest in medicine for three years through job shadowing and working with physician mentors, attending Grand Rounds, and sometimes medical school class with a PEP medical student mentor. The program is a collaboration between the UVM Office of Primary Care and AHEC, the Honors College, and the College of Medicine.

Justin took full advantage of the three-year PEP experience, while pursuing a Bachelor of Science degree in neuroscience. During his first week of shadowing trauma surgeon Bruce Crookes, MD he watched a chest tube be placed in the Surgical Intensive Care Unit (SICU). He fell in love with the OR, even after rotations in other areas of medicine. He also learned about the humanistic side of medicine from Dr. Crookes, who allowed Justin to shadow him nearly every week for two years. "I got to see a different side shadowing Dr. Crookes for two years; he became a mentor and secured my interest in surgery." About the overall program, he says, "PEP absolutely was influential in my decision to go into medicine." Now entering his fourth and final year at the UVM College of Medicine, he spent a week working with the Southern Vermont MedQuest team, about which he says: "I liked the fact that MedQuest wasn't just about exposure to medicine as a physician but all kinds of careers like nursing and respiratory therapy." Last year, he became a PEP mentor himself, helping a new PEP student "as a way of starting to give back," he says. "I really connected with my PEP mentee, and brought him to class and labs."

To participate in PEP, students are required to have a cumulative GPA of 3.5 after their first two semesters at UVM, and a 3.5 GPA in math and science classes. They must submit a letter of recommendation and sit for an interview. Once they are in the program, students are expected to meet GPA requirements, take required pre-medical classes, attend two medical seminars per semester and log the required time with their physician mentors. Students who have successfully completed PEP will be invited for an admissions interview at the College of Medicine; those who do well in their interview will be recommended for acceptance. About half of the PEP students who have graduated in the past three years have entered medical school at UVM. Now writing his personal statement to apply for residency after he graduates in May, Justin says it is based on his PEP experience that introduced him to his mentor Dr. Crookes. Interested in general surgery, he says "I'd love to come back to Vermont to practice." ■



Gregory Roy, left and Justin Van Backer, right, examine a specimen in anatomy lab.



Justin Van Backer models his new white coat following the traditional White Coat ceremony in his sophomore year.

Continuing Education for School Nurses

Mary Sherwin has been a school nurse at Christ the King School in Rutland for 15 years; five years ago she discovered the Grand Rounds for School Nurses program which provides five after-school educational sessions per school year.



Mary Sherwin, RN

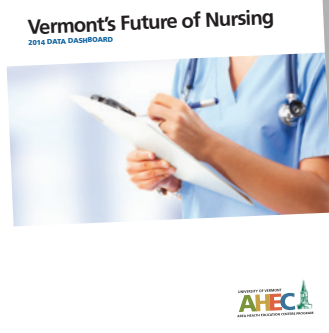
Broadcast from 13 Vermont Interactive Television (VIT) sites (Mary attends at the Stafford Technical Center in Rutland), the program provides free continuing education to school nurses throughout Vermont. The school nurses provide direct feedback to inform and select the topics of the sessions. Speakers are often drawn from the University of Vermont Children's Hospital or other in-state topic experts, and the sessions are after school when more school nurses can attend.

"I'm the only medical person here, so I really look forward to it," Sherwin says. "I've been able to benefit from it even if it is a small idea; I get information on things that I wasn't necessarily concentrating on. One reminder I use from a session on asthma is that *not all asthma wheezes and not all wheezing is asthma*, which I use when assessing a child with respiratory problems."

She concludes, "I enjoy going; I'm so impressed with this program!" ■

"School nursing practice can be isolating in Vermont; The Vermont Department of Health/UVM AHEC's Grand Rounds for School Nurses Program provides an opportunity to learn and network with colleagues at the same time."

— Sharonlee Trefry MSN, RN, NCSN
Vermont Department of Health
Maternal and Child Health Division
State School Nurse Consultant



Vermont's Future of Nursing 2014 Data Dashboard

The 2014 Data Dashboard has been compiled to give an overview of Vermont nurses' educational background, practice, leadership, and supply and demand. Drawn from the Vermont State Board of Nursing Relicensure Survey, the Dashboard is available at www.vtahec.org. ■

Delta Dental Contributes to Vermont's Educational Loan Repayment Program for Dentists

Delta Dental Plan of Vermont matched Vermont Educational Loan Repayment awards for four dentists for the 2014 year. This marks the fourth year Delta Dental has contributed to community match funds for the program. The 2014 recipients are: **Zongjian Jia, DMD, PhD**, an associate dentist at St. Johnsbury Dental Associates in St. Johnsbury, VT; **Ronald St. John** with Island Pond Health and Dental Center in Island Pond, VT; **Ruchi Grover, DDS**, at Highland Dental Center in Newport; and **Brian Saltzman, DMD**, of Saltzman Dental in downtown Middlebury.

The Vermont Educational Loan Repayment Program provides loan repayment for dentists serving in workforce shortage areas in the state. Recipients must agree to a one-year service obligation contract and practice a minimum of 20 clinical hours per week at designated sites. ■



The University of Vermont Office of Primary Care and Area Health Education Centers Network gratefully acknowledges its supporters:



- Brattleboro Memorial Hospital
- Central Vermont Medical Center
- Delta Dental of Northern New England
- Department of Health and Human Services Health Resources and Services Administration (HRSA) Bureau of Health Professions
- Gifford Medical Center
- Grace Cottage Hospital
- Mt. Ascutney Hospital and Health Center
- North Country Hospital
- Northeastern Vermont Regional Hospital
- Northwestern Medical Center
- Porter Medical Center
- Rutland Regional Medical Center
- Southwestern Vermont Medical Center
- Springfield Hospital
- State of Vermont and Vermont Department of Health
- University of Vermont College of Medicine
- University of Vermont Medical Center (formerly Fletcher Allen Health Care)
- Vermont's Congressional Delegation
- Vermont State Legislature

We thank our many partners and collaborators who enrich our efforts to ensure enough health care providers serve Vermont residents.

