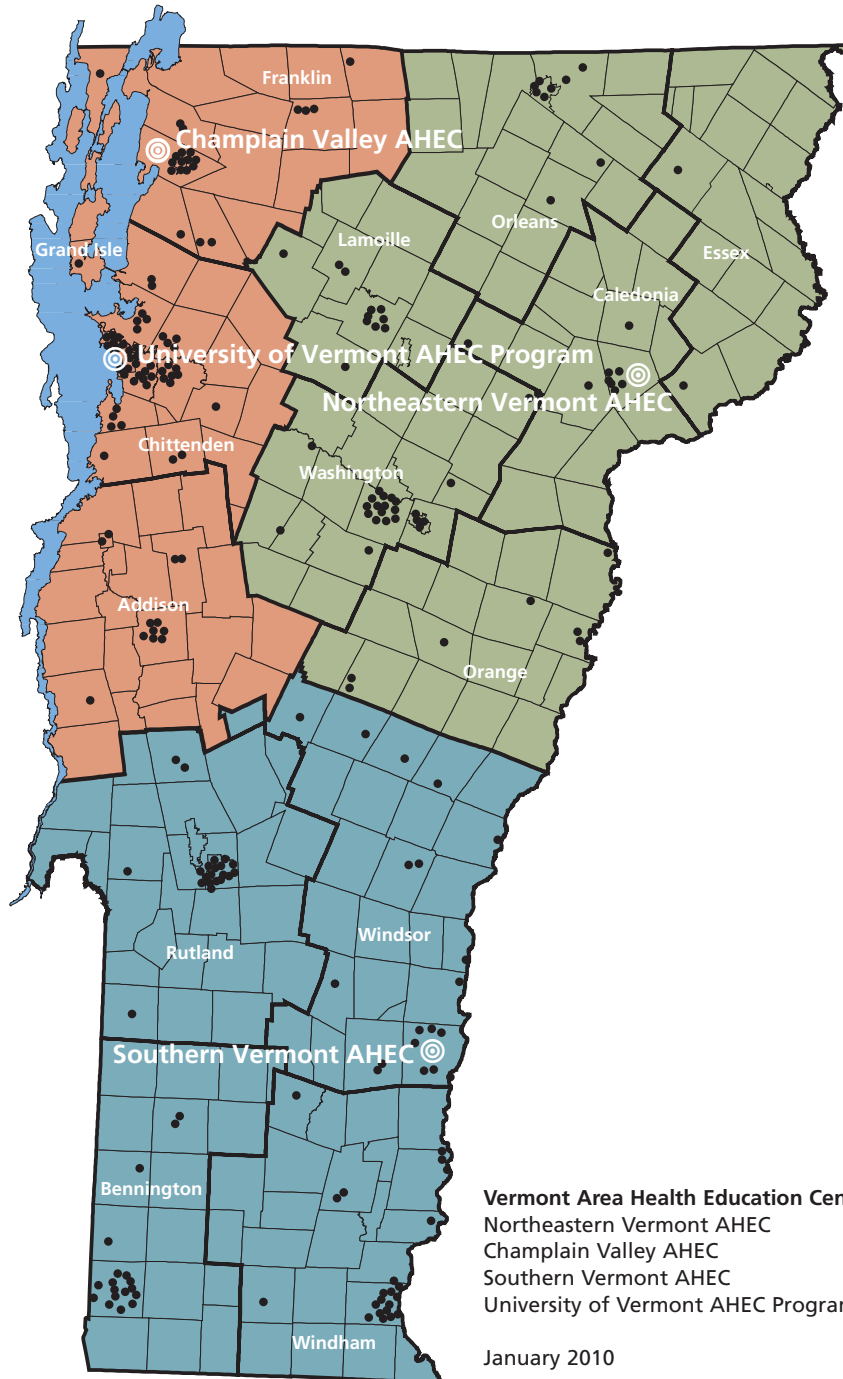


The Vermont Primary Care Workforce

2009 SNAPSHOT



Vermont Area Health Education Centers (AHEC) Network:
 Northeastern Vermont AHEC
 Champlain Valley AHEC
 Southern Vermont AHEC
 University of Vermont AHEC Program

January 2010

About Vermont AHEC

The Vermont Area Health Education Centers (AHEC) Program, in collaboration with many partners, improves access to quality healthcare through its focus on workforce development. This includes: pipeline programs in health careers awareness and exploration for youth in communities across the state; support for and engagement of health professions students at the University of Vermont and residents at Fletcher Allen Health Care; and recruitment and retention of the healthcare workforce in Vermont.

AHEC efforts focus on achieving a well-trained healthcare workforce so that all Vermonters have access to quality care, including those who live in Vermont's most rural areas and Vermont's underserved populations. In addition to workforce development, AHEC brings educational and quality improvement programming to Vermont's primary care practitioners and supports community health education across the state.

AHEC believes that success in healthcare innovation, transformation, and reform depends on an adequate supply and distribution of well-trained healthcare professionals.

AHEC History & Partners

The Vermont Area Health Education Centers Program was established in 1996 by the University of Vermont College of Medicine's Office of Primary Care and is funded through multiple grants and contracts including: Federal HRSA Title VII, State of Vermont, Vermont Department of Health, University of Vermont College of Medicine, Fletcher Allen Health Care, Vermont's 13 community hospitals, and private foundations.

The statewide infrastructure of AHEC consists of a program office and three regional centers, each a separate 501(c)(3), non-profit organization capable of providing support for community healthcare systems. AHEC provides a link between the University of Vermont College of Medicine and Vermont's communities. AHEC is a dynamic academic-community partnership.

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PRIMARY CARE WORKFORCE – 2009 SUMMARY FINDINGS



The primary care workforce includes family medicine (FM), general internal medicine (IM), obstetrics/gynecology (OB/GYN), and general pediatrics (PED).

When analyzing the supply and distribution of primary care practitioners and changes across time, counts of practitioners are reported in Full-Time Equivalents, or FTEs, rather than counts of individual people, to standardize workforce measures and determine adequacy and shortfalls.

Summary findings:

- There are 545 physicians and 239 advanced practice registered nurses (APRNs), certified nurse midwives (CNMs), and certified physician assistants (PA-Cs), for a total of 784 individual primary care practitioners.
- There are 220 primary care practices.
- The supply of primary care practitioners falls short of an adequate supply statewide. Combining *all* primary care specialties, there is a total shortfall of 42 primary care practitioner FTEs:
 - 27 primary care physician FTEs, and
 - 15 APRN, CNM and PA-C FTEs
- It is estimated that 55 individual practitioners are required to meet this shortfall, given the part-time nature of some clinical positions due to teaching, administrative, and research responsibilities; reduction in hours for those approaching retirement or meeting family or personal health needs; and that some clinical positions are only part-time in small, rural practices.
- Supply and distribution vary by region and primary care specialty.
- There is an overall shortfall of 56 internal medicine physician FTEs.
- The internal medicine physician shortfall affects access to primary care for adults in every county of Vermont.
- The supply of family medicine physicians, who serve both adults and children, is at the adequate level statewide, but varies by county.

- Combining the efforts of both internal and family medicine physicians, there still continues to be a need for adult primary care physicians in every region of the state.
- Half of all family and internal medicine physicians in Vermont report that they have limited or closed their practice to new patients.

There is significant activity underway in Vermont to address the recruitment and retention of the primary care workforce:

- AHEC provides health career exploration programs for youth (i.e., the next generation healthcare workforce) in middle and high schools throughout Vermont.
- AHEC provides support for and engagement of health professions students at the University of Vermont and residents at Fletcher Allen Health Care.
- 41% of the primary care physicians practicing in Vermont have received their training from the University of Vermont College of Medicine and/or Fletcher Allen Health Care Residency Programs.
- 54% of the primary care physicians practicing in Vermont have had their educational debt reduced in exchange for a service commitment through support from the Vermont AHEC Program which administers the Vermont Educational Loan Repayment Program for Primary Care Practitioners and the UVM College of Medicine Freeman Medical Scholars Program.

Challenges to primary care in Vermont are due to the growing numbers of elderly Vermonters and the accompanying increases in chronic illnesses, the aging of the workforce itself, and the smaller supply of new primary care physicians affecting the nation as a whole. Vermont must continue to focus on fostering an adequate supply of primary care practitioners to ensure access to high quality health care for all Vermonters.

PRIMARY CARE SURVEY

The Vermont Area Health Education Centers (AHEC) Program, in collaboration with many partners, improves access to quality healthcare through its focus on workforce development. This includes: pipeline programs in health careers awareness and exploration for youth in communities across the state; support for and engagement of health professions students at the University of Vermont and residents at Fletcher Allen Health Care; and recruitment and retention of the healthcare workforce in Vermont.

AHEC efforts focus on achieving a well-trained healthcare workforce so that all Vermonters have access to quality care, including those who live in Vermont's most rural areas and Vermont's underserved populations. In addition to workforce development, AHEC brings educational and quality improvement programming to Vermont's primary care practitioners and supports community health education across the state.

AHEC believes that success in healthcare innovation, transformation, and reform depends on an adequate supply and distribution of well-trained healthcare professionals.

Annually, each of the three community-based Area Health Education Centers surveys all primary care practices in its region to get a snapshot of the supply and distribution of primary care practitioners. This inventory guides AHEC's program development to address needs of the current workforce, as well as identifies emerging workforce shortages.

This report is a compilation of the three regional surveys. Survey findings reflect a point in time and supplement, but are not intended to replace the comprehensive survey conducted by the Vermont Department of Health of each physician at the time of physician relicensing every two years.

Averaging all practitioners across the state, the overall supply of primary care practitioners is below adequate levels, using benchmarks established by the Graduate Medical Education National Advisory Committee Report (GMENAC). Examination of the workforce in each primary care specialty, including family medicine, internal medicine, obstetrics/gynecology, and pediatrics, in different regions of the state, shows areas of both adequacy and shortage. The most significant shortage statewide is for primary care physicians who care for adults.

Since the GMENAC benchmarks were established in 1980, they do not factor in the aging of Vermont's population. While Vermonters are aging and placing additional demands on the healthcare system, the healthcare workforce itself is aging. The aging healthcare workforce and a decline in the number of U.S. medical school graduates who are entering general internal medicine and family medicine are all significant factors contributing to the national decline in the supply of primary care physicians. Both the need for and shortage of primary care physicians are expected to increase in Vermont and nationally. National shortages tend to have a larger impact on rural regions such as Vermont, where compensation is less competitive.

Thus, it is essential to sustain and enhance the work of addressing the healthcare workforce supply and provide access to primary care for all Vermonters through focused effort on pipeline development, recruitment, retention, and continuing education of the primary care workforce.

PRIMARY CARE WORKFORCE INDICATORS

Supply and Distribution by Region and Specialty

The 2009 primary care office-based surveys conducted by the Northeastern Vermont AHEC, the Champlain Valley AHEC, and the Southern Vermont AHEC identified a total of 220 primary care practice sites in Vermont. In this survey, primary care included the specialties of family medicine (FM), general internal medicine (IM), obstetrics and gynecology (OB/GYN), and general pediatrics (PED).

There are 784 primary care practitioners in these practices, including 545 physicians (MDs or DOs) in the primary care specialties and 239 advanced practice registered nurses (APRNs, often known as NPs or nurse practitioners), certified nurse midwives (CNMs), and certified physician assistants (PA-Cs).

The adequacy of the supply and distribution of the primary care physician workforce is examined by geographic region and by primary care specialty. Physicians' scheduled in-office patient hours are collected to compute a full-time equivalent (FTE) per practitioner. The supply and distribution of primary care practitioners is reported in FTEs, rather than counts of individuals, to standardize workforce measures and determine adequacy and shortfalls.

Benchmarks

The GMENAC benchmark across the four primary care specialties combined is 80.5 primary care physicians (in FTEs) per 100,000 population. The estimated Vermont population at the time of the data collection was 621,270 (U.S. Census, VT estimated population, July 2008). Thus, the number of primary care physicians required to yield an adequate supply by this benchmark is 501 physician FTEs for Vermont's population. Vermont currently has 474 physician FTEs.

The supply of APRNs, CNMs and PA-Cs who work with physicians to deliver primary care was also examined to assess the primary care workforce adequacy. Based on GMENAC assumptions of three-tenths of an APRN, CNM, or PA-C for each full-time primary care physician, Vermont has developed a general adequacy guideline of one APRN/CNM/PA-C for every three primary care physicians. The statewide benchmark for an adequate supply of these primary care practitioners combined across Vermont is 167 FTEs. Vermont currently has 151 FTEs.

While most of the report addresses supply adequacy and shortfalls in FTEs, there are also estimates of how many

individual practitioners it may take to bring the workforce up to an adequate supply since some practitioners work less than one FTE due to teaching, administrative, and research responsibilities, preparing for retirement, family or personal health needs, or due to the size of small rural practices which only support part of an FTE position.

Specialties and regions which are one or more practitioners below the adequate level are **highlighted** in the report.

Net Change in Supply and Distribution Since 2008

This report is a snapshot of practitioner hours and presents the primary care workforce in the aggregate and, where relevant, compares it to the 2008 primary care workforce data. This analysis is not sensitive to individual practitioners arriving or leaving practice, but rather, is descriptive of how many there are in the aggregate. Thus, it represents net changes in number, but does not reflect all of the dynamic activity of change in the workforce over the course of a year.

For example, no net differences in the workforce means that much successful recruiting has occurred as primary care practitioners leave practice in Vermont and new practitioners arrive. The net flow will show no change if those who left are replaced with practitioners working similar hours. In order to address an inadequate supply, more practitioners are needed and/or current practitioners need to increase their hours.

The reasons why there are net changes in either the number of practices or practitioners were not examined in the survey, as the survey was quantitative in nature, recording practitioner office hours as the basis for calculating FTEs, which were then compared to population benchmarks.

Practitioners Limiting or Not Accepting New Patients

Another indicator of access to care is reflected in the proportion of physicians or other primary care practitioners who limit or close their practice to new patients. Examples of limiting new patients include practices which only accept new family members of current patients or accept new patients only if they are from the town where their practice is located. Since there is not an established benchmark of adequacy, the proportion of practitioners in a region with limited or closed practices is reported here. Those with one-quarter or more limiting or closing their practice are **highlighted**.

Additional details on the methodology and definitions are explained in the Endnotes (page 11).

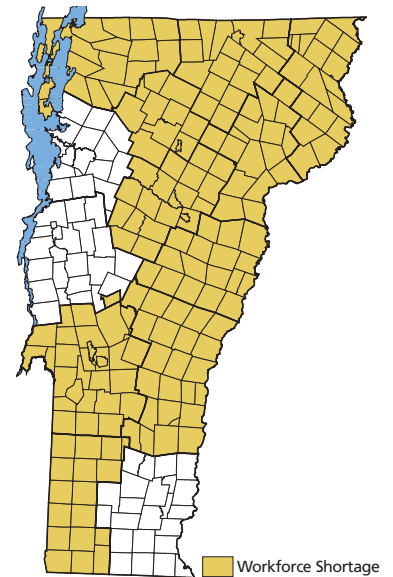
PRIMARY CARE PHYSICIAN WORKFORCE – 2009 STATEWIDE FINDINGS

Supply and Distribution of Physicians (MD/DOs) by County and AHEC Region

There are 545 primary care physicians and 239 advanced practice registered nurses (APRNs), certified nurse midwives (CNMs), and certified physician assistants (PA-Cs), for a total of 784 in 220 primary care practices in Vermont.

Combining all primary care specialties, Vermont currently has 474 (full-time equivalents or FTEs) primary care physicians, which is 27 fewer primary care physician FTEs than the overall adequate number of 501. Given the part-time nature of some primary care physicians due to teaching, administration, and research responsibilities, approaching retirement, meeting family needs or personal health needs, and the part-time nature of needs of some small rural practices, it would take approximately 31 individual physicians to fill this shortfall (based on the total number of physicians it currently takes to yield one FTE).

	County	No. Practice Sites	No. MD/DOs	No. MD/DOs in FTEs*	Recommended MD/DOs in FTEs*	Supply in FTEs*	County Population (2008 est.)
Northeastern	Caledonia	9	25	22	25	-3	30,470
	Essex	2	2	2	5	-3	6,500
	Lamoille	11	22	19	20	-1	24,833
	Orange	7	22	18	23	-5	28,917
	Orleans	9	17	16	22	-6	27,189
Champlain	Washington	23	47	45	47	-2	58,829
	Addison	12	36	30	29	+1	36,617
	Chittenden	47	176	140	123	+17	152,782
	Franklin	20	30	27	39	-12	47,949
	Grand Isle	2	2	1	6	-5	7,729
Southern	Bennington	18	31	28	29	-1	36,382
	Rutland	21	43	42	51	-9	63,331
	Windham	21	47	42	35	+7	43,176
	Windsor	18	45	40	46	-6	56,566
	TOTAL*	220	545	474	501	-27	621,270



*small discrepancies are due to rounding

Changes in Supply and Distribution from 2008-2009

Eleven of Vermont's 14 counties show a shortage of primary care physicians (FTE) compared to nine counties in 2008. Workforce shortages are highlighted. The data show that while some counties teeter on the edge of the "adequate" supply threshold, where the gain or loss of one physician can tip the balance, Franklin and Rutland Counties show the largest absolute need in 2009, with an undersupply of 12 and nine primary care physician FTEs, respectively.

While these larger counties have higher absolute needs, the undersupply of three to five physicians in counties with substantially lower populations, such as Essex in the Northeastern AHEC Vermont region and Grand Isle in the Champlain Valley AHEC region, results in an increased burden for these Vermonters who must travel long distances to receive care.

None of the counties in the Northeastern Vermont AHEC region has an adequate supply of primary care practitioners.

A net loss of seven primary care physician FTEs in Windsor County and one physician FTE in Lamoille County occurred between 2008 and 2009. This tipping point resulted in these two counties no longer having an adequate supply of primary care physicians overall.

Franklin County, which was under the adequate supply in all primary care specialties combined in 2008, also experienced a net loss of two physician FTEs in 2009. While Bennington County has increased the number of physician FTEs, the supply remains just below an adequate level.

The adequate supply of primary care physicians in Chittenden County is actually the result of summing the adequate supply of pediatricians and obstetrician/gynecologists with an inadequate supply of family and internal medicine physicians (see page 9 for additional details). Some of the decline in physician FTEs in Chittenden County since 2008 is a result of a methodological improvement in the data collection. For pediatric and obstetrics/gynecological practices which deliver both primary and specialty care in one practice, only the primary care office hours are counted in 2009, rather than total office hours.

Supply and Distribution of Physicians by Primary Care Specialty

Analysis of the primary care physician supply and distribution by specialty continues to show a serious shortage statewide in the number of primary care physicians for adults, similar to that in 2008. Specifically, there is an overall shortfall of 56 internal medicine physician FTEs.

This affects access to primary care for adult patients in all regions of Vermont. Family medicine physicians, who serve both adults and children, are just at adequate supply statewide. Thus, even combining the efforts of both internal and family medicine physicians, there remains a shortage of practitioners for adults needing primary care.

Statewide there has been a net loss of nine individual internal medicine physicians since 2008. Using their office hours to convert the physician supply into full-time equivalent positions (FTEs), there has been a loss of three FTE internal medicine physicians. This is an indication of fewer physicians practicing more hours. Some of this may be a positive impact of hospitalists who pick up some out-of-office (hospital) responsibilities, allowing internists additional time in the office setting. Some of it may just be longer hours by fewer physicians. The survey tool is not sensitive to reasons for these observed changes.

Statewide, the supply of pediatricians and obstetrics/gynecologists is adequate, though adequacy of supply varies by region and is further examined in the regional sections of this report (pages 8-10). As noted above, comparison of pediatric and obstetrics/gynecology physician workforce changes from 2008 is not possible due to changes in data collection methodology.

Primary Care Specialties	No. MD/DOs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	237	204	202	+2
Internal Medicine	129	118	175	-56
OB/GYN	76	65	58	+6
Pediatrics	103	87	66	+21
Total*	545	474	501	-27

*small discrepancies are due to rounding

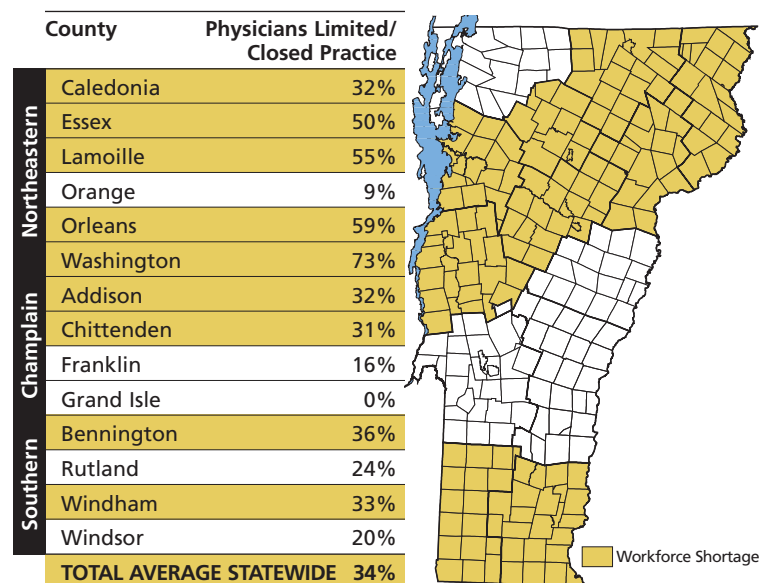
Physicians Not Accepting/Limiting New Patients by County and AHEC Region

Statewide, one-third (34%) of primary care physicians are either not accepting or limiting their acceptance of new patients. This is an increase from 31% in 2008.

Nine counties show at least one-quarter, and up to 73%, of physicians are not accepting or are limiting acceptance of new patients. These are highlighted on the accompanying chart.

In the Northeastern Vermont AHEC region, five of the six counties (two more counties since 2008), are now reporting that at least one-quarter of the physicians are limiting or not accepting new patients.

While the survey included physicians in four primary care specialties, almost all of the physicians (94%) who are limiting or not accepting new patients are either family or internal medicine physicians. About half (48%) of all family and internal medicine physicians in Vermont have limited or closed their practices to new patients. Further details on these two primary care specialties are presented in the regional analyses (pages 8-10).



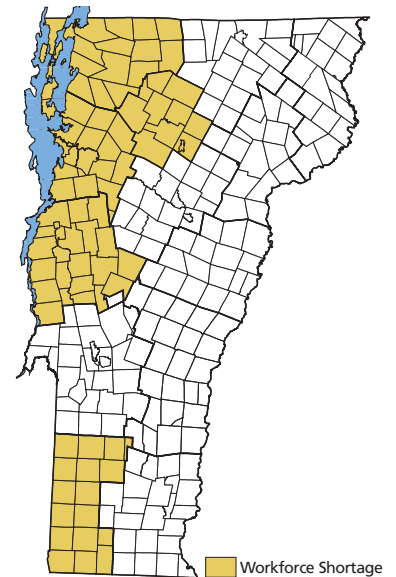
OTHER PRIMARY CARE PRACTITIONERS – 2009 STATEWIDE FINDINGS

Supply and Distribution of APRNs, CNMs, and PA-Cs in Primary Care by County and AHEC Region

There are 239 APRNs, CNMs and PA-Cs in primary care in Vermont, representing 151 practitioner FTEs, which is 15 below the adequate number of 167 FTEs statewide. Given the part-time nature of many positions in rural practice, approximately 24 practitioners are needed to achieve 15 FTEs (based on the total number of practitioners it currently takes to yield one FTE).

	County	No. APRNs, CNMs & PA-Cs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Northeastern	Caledonia	13	8	8	0
	Essex	3	2	2	0
	Lamoille	10	5	7	-1
	Orange	16	8	8	+1
	Orleans	13	11	7	+4
	Washington	26	17	16	+1
Champlain	Addison	8	5	10	-5
	Chittenden	53	28	41	-13
	Franklin	13	10	13	-3
	Grand Isle	3	2	2	-1
	Bennington	10	8	10	-2
Southern	Rutland	25	18	17	+1
	Windham	23	14	12	+2
	Windsor	23	15	15	0
	TOTAL*	239	152	167	-15

*small discrepancies are due to rounding



Changes in Supply and Distribution from 2008-2009

While the total workforce supply of APRNs, CNMs and PA-Cs is similar to that in 2008, there are changes in the distribution of these practitioners. Currently, six counties do not have an adequate supply, which is one more than in 2008. The gain or loss of one practitioner FTE can change a county from an adequate supply to less than adequate; most counties are currently teetering at the edge of this criterion. Workforce shortages are highlighted.

The areas of greatest concern remain those mentioned in the physician workforce analysis above: Franklin and Grand Isle Counties in the Champlain Valley AHEC region; Bennington, Rutland and Windsor Counties in the Southern Vermont AHEC region; and all of the counties in the Northeastern Vermont AHEC region. In these locations, there is an overall shortage of primary care physicians and only a marginally adequate supply of APRNs, CNMs and PA-Cs, resulting in overall shortfalls in primary care.

The two counties with the largest absolute shortfall of these other primary care practitioners are Chittenden and Addison Counties. While the overall primary care physician supply in these counties is adequate, shortfalls of adult primary care physicians (see page 9 for additional details) may be further exacerbated by the shortfall of APRNs, CNMs and PA-Cs in this region.

Supply of Other Primary Care Practitioners by Practice Discipline

While the overall supply of APRNs, CNMs and PA-Cs remained relatively stable from 2008 to 2009, in addition to a change in distribution regionally, there has also been a net change across disciplines. There was a net gain of four physician assistant FTEs and one advanced practice registered nurse FTE. Comparison of CNM workforce changes from 2008 is not possible due to change in data collection methodology in Chittenden County described earlier (page 5).

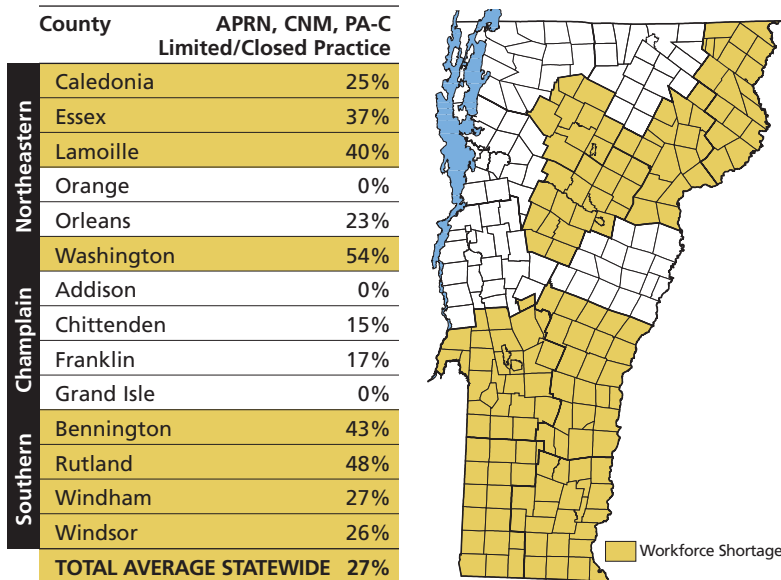
Disciplines	No. APRNs, CNMs PA-Cs (combined)	No. in FTEs*	Recommended in FTEs (combined)*	Supply in FTEs*
Advanced Practice Registered Nurse	133	79		
Certified Nurse Midwives	32	16		
Certified Physician Assistants	74	57		
TOTAL*	239	152	167	-15

*small discrepancies are due to rounding

APRNs, CNMs and PA-Cs Not Accepting New Patients by County and AHEC Region

About one-quarter (27%) of APRNs, CNMs and PA-Cs are not accepting new patients. The ranges are highest in southern and northeastern counties of Vermont, including the same counties where there are primary care physician shortfalls and physicians have limited or closed their practices.

In the Champlain Valley AHEC region, Franklin County has both the highest percent of APRNs, CNMs and PA-Cs with limited or closed practices and the greatest shortage of primary care physicians.



Northeastern Vermont AHEC

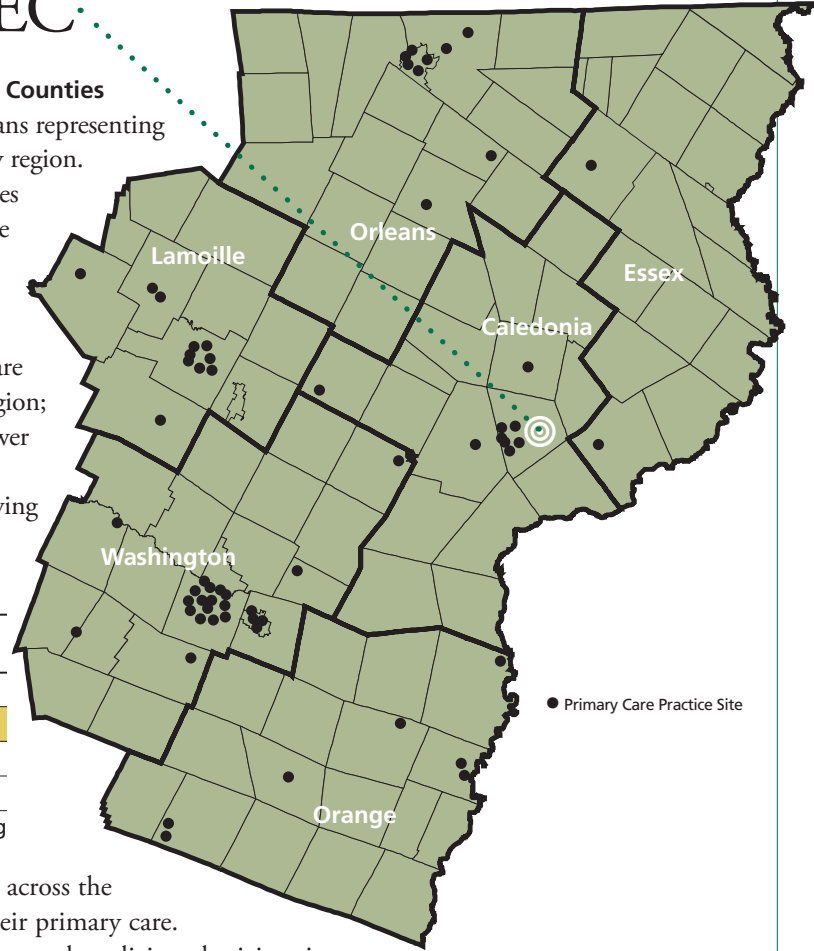
Caledonia, Essex, Lamoille, Orange, Orleans, and Washington Counties

There are 61 primary care practices and 135 primary care physicians representing 123 physician FTEs in Northeastern Vermont AHEC's six-county region. The combined county population equals 176,738. The net changes are relatively small since 2008: one less physician and no net change in physician FTEs in the region, indicating that physicians have increased their in-office practice hours since 2008.

Changes within primary care physician specialty show that there are physicians leaving and new physicians recently recruited to the region; for example, the total number of pediatricians and internists is lower than in 2008 and family physician and obstetrician numbers are higher. Net changes indicate that the shortage of practitioners serving adults persists. An additional 21 physician FTEs are needed to serve adults.

Primary Care Specialties (MD/DOs)	No. MD/DOs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	64	58	57	0
Internal Medicine	31	29	50	-21
Obstetrics/Gynecology	19	18	17	+1
Pediatrics	22	19	19	0

*small discrepancies are due to rounding



The shortage of primary care physicians for adults is widespread across the region resulting in patients having to travel long distances for their primary care. With regard to taking on new patients, 64% of the family and internal medicine physicians in the region now report that their practices are closed or limited, which is up from 42% in 2008.

The recommended number of APRNs, CNMs and PA-Cs for the region is 48 FTEs. There are 52 FTEs in the region, similar to the number in 2008. While this is technically an adequate supply, it does not compensate for the shortfall in adult primary care physicians. In fact, about one third (31%) of APRNs, CNMs and PA-Cs have closed or limited their practices to new patients.

Additional findings for this region are presented in the statewide analyses (pages 4-7).

FAMILY MEDICINE (FM) & INTERNAL MEDICINE (IM) PHYSICIAN SHORTFALL

County	Specialty	No. MD/DOs	No. in FTEs*	Recommended*	Supply in FTEs*
Caledonia	FM	10	8	10	-4
	IM	6	6	9	
Essex	FM	1	1	2	-2
	IM	1	1	2	
Lamoille	FM	15	14	8	+2
	IM	4	3	7	
Orange	FM	8	7	9	-8
	IM	3	2	8	
Orleans	FM	5	5	9	-7
	IM	6	5	8	
Washington	FM	25	23	19	-1
	IM	12	11	17	

*small discrepancies are due to rounding

Workforce Shortage

Champlain Valley AHEC

Addison, Franklin, Chittenden and Grand Isle Counties

There are 81 primary care practices and 244 primary care physicians representing 199 FTEs in Champlain Valley AHEC's four-county region. The combined county population equals 245,077.

The total shortage of internal and family medicine physicians combined FTEs is 24. There has been a small net increase in the number of family medicine physician FTEs and a loss of one internal medicine FTE since 2008. The overall shortage in adult primary care persists in this region.

Survey methods changed in 2009 resulting in an improved count of pediatric and obstetrics/gynecology primary care hours, separate from specialty care practiced in some of the same office clinics. Thus, trend data cannot be inferred in this year's analysis regarding pediatric and obstetrics/gynecology primary care practices in this region.

Primary Care Specialties (MD/DOs)	No. MD/DOs	No. in FTEs*	No. Recommended in FTEs*	Supply in FTEs*
Family Medicine	90	71	80	-9
Internal Medicine	60	54	69	-15
Obstetrics/Gynecology	41	31	23	+9
Pediatrics	53	43	26	+17

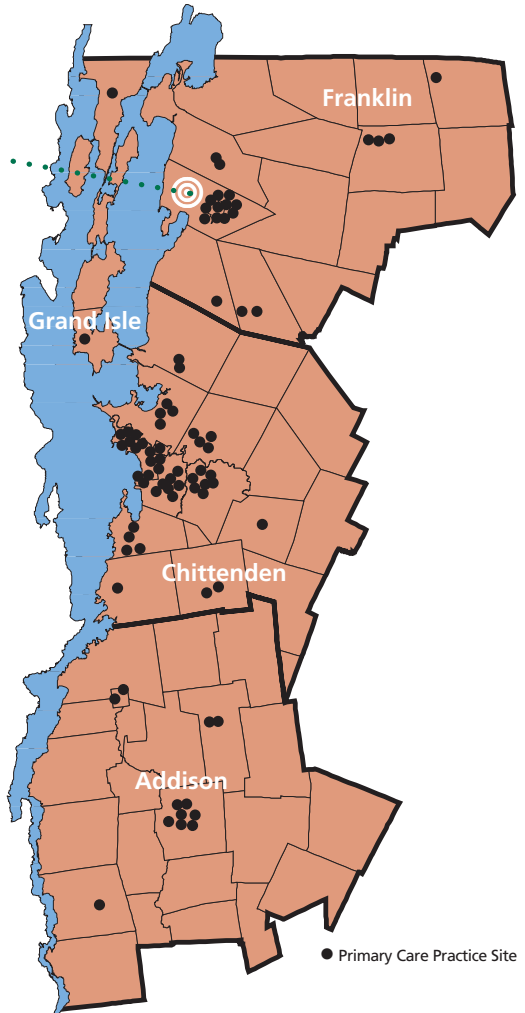
*small discrepancies are due to rounding

The shortage of primary care physicians for adults is most acute in Franklin County. Similar to 2008, the under supply continues to be 15 physician FTEs. With regard to taking on new patients, 46% of the family and internal medicine physicians in the Champlain Valley region report that their practices are closed or limited to new patients, a small increase since 2008.

The recommended number of APRNs, CNMs and PA-Cs for the region is 66 FTEs. There are 45 in the region, which is a shortfall of 21 FTEs. About 13% of these practitioners have closed or limited their practices to new patients.

The two counties with the largest absolute shortfall of APRNs, CNMs and PA-Cs are Chittenden and Addison Counties. Shortfalls of adult primary care physicians in these counties may be further exacerbated by the shortfall of APRNs, CNMs and PA-Cs in this region.

Additional findings for this region are presented in the statewide analyses (pages 4-7).



● Primary Care Practice Site

FAMILY MEDICINE (FM) & INTERNAL MEDICINE (IM) PHYSICIAN SHORTFALL

County	Specialty	No. MD/DOs	No. in FTEs*	Recommended*	Supply in FTEs*
Addison	FM	19	15	12	0
	IM	7	7	10	-6
Chittenden	FM	59	46	50	-6
	IM	47	41	43	-6
Franklin	FM	10	9	16	-15
	IM	6	5	13	-15
Grand Isle	FM	2	1	3	-3
	IM	0	0	2	-3

*small discrepancies are due to rounding

Southern Vermont AHEC

Bennington, Rutland, Windham, and Windsor Counties

There are 78 primary care practices and 166 primary care physicians representing 152 physician FTEs in Southern Vermont AHEC's four-county region. The combined county population equals 199,455. This is a net loss of six individual physicians in the region since 2008, though there was only a net loss of two physician FTEs, indicating that there are fewer physicians but they have increased their in-office practice hours.

The supply of family medicine physicians is adequate; however, a significant deficit in internal medicine physicians is an indicator of the overall need for more primary care physicians for adults in the region. The region is also experiencing a shortage in general obstetrics/gynecology physicians and a net loss of two physician FTEs in this specialty since last year.

Primary Care Specialties (MD/DOs)	No. MD/DOs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	83	75	65	+11
Internal Medicine	39	36	56	-20
Obstetrics/Gynecology	16	15	18	-3
Pediatrics	29	25	21	+4

*small discrepancies are due to rounding

The shortage of primary care physicians for adults can be seen in Bennington, Rutland and Windsor Counties. The largest net loss of family and internal medicine physicians has been in Windsor County which had an adequate supply in 2008. While still undersupplied, Bennington and Rutland Counties have experienced a net increase in adult primary care physicians since 2008. With regard to taking on new patients, 37% of the family and internal medicine physicians report that their practices are closed or limited. This is a small improvement from 2008.

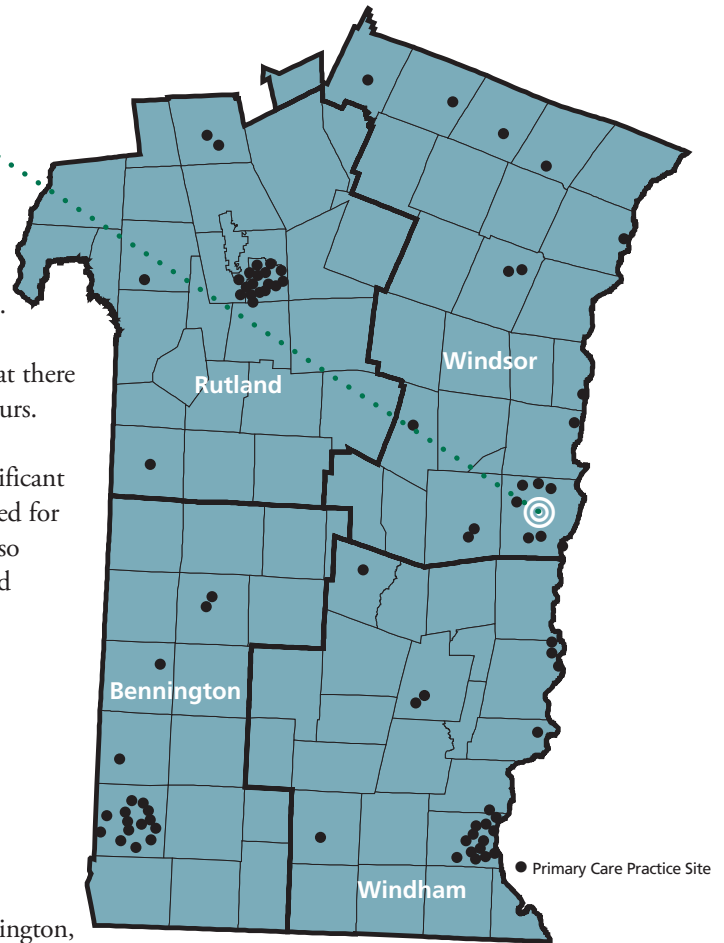
FAMILY MEDICINE (FM) & INTERNAL MEDICINE (IM) PHYSICIAN SHORTFALL

County	Specialty	No. MD/DOs	No. in FTEs*	Recommended*	Supply in FTEs*
Bennington					-1
	FM	18	15	12	
Rutland					-8
	FM	24	23	21	
Windham					+5
	FM	24	21	14	
Windsor					-6
	FM	17	16	18	
Windsor					-6
	IM	14	13	16	

*small discrepancies are due to rounding

The recommended number of APRNs, CNMs and PA-Cs for the region is 54 FTEs. There are currently 55 FTEs. This is an increase of five FTEs since 2008. About one third (35%) of these practitioners have closed or limited their practice to new patients.

Additional findings for this region are presented in the statewide analyses (page 4-7).



Workforce Shortage

ENDNOTES

Primary Care Survey: Office administrators from all primary care practices (FM, IM, OB/GYN, and PED) in Vermont are surveyed by AHEC annually. In most cases, the practice receives last year's survey from their regional AHEC and updates personnel and their in-office patient hours (the hours blocked-in for each practitioner to see patients) to reflect the current, typical, weekly office hours of the physicians (MD/DOs), advanced practice registered nurses (APRNs), certified nurse midwives (CNMs), and certified physician assistants (PA-Cs) in the practice. Per diem practitioners have not been included in the report if the practitioner is temporary and the practice is searching for a permanent practitioner. However, some "temporary" practitioners are effectively permanent staff members, often filling seasonal or other regular needs. These practitioners are included in the office practice survey.

Physician Full-Time Equivalent (FTE): Calculating a Full-Time Equivalent for physicians is based on reported in-office patient hours using a method developed by federal agencies to measure physician shortage areas in geographic regions (<http://bhpr.hrsa.gov/shortage/hpsaguidepc.htm>). An upward adjustment of hours (see chart below) reflects both the additional in-office hours for diagnosis, treatment, and clinical reports, such as researching conditions or new drugs, reading test results, consulting with other practitioners for treatment or referral, calling a pharmacy for a prescription, completing medical records and paperwork associated with clinical notes, and billing documentation outside of the regularly scheduled office hours, all in the course of direct patient care. In addition to the in-office hours recorded in the survey, physicians typically spend hours outside of the office involved in patient care including: care at the hospital, nursing home, emergency department, or care in the patient's home. The adjustment also reflects these additional patient care hours. The adjustments are:

Primary Care Specialty	Office Hours	Adjustment Factor	Hours Per Week	Full-Time Equivalent
FM	#	x 1.4	÷ 40	= FTE
IM	#	x 1.8	÷ 40	= FTE
OB/GYN	#	x 1.9	÷ 40	= FTE
PED	#	x 1.4	÷ 40	= FTE

No physician is assigned to be more than one FTE, even if their adjusted hours exceed 40 per week. If, after the adjustment, the physician's typical week is less than 40 hours, they are considered less than one FTE, which is calculated in 100ths, though cumulatively; information across all practitioners is then represented in whole numbers. There are some small discrepancies due to rounding. Physicians with more than one primary care specialty or at more than one practice site have their FTE split proportionately.

APRN, CNM, and PA-C Full-Time Equivalent (FTE): Full-Time Equivalent for these primary care practitioners is based on the current, typical weekly office hours reported on the survey. There are no adjustments to these hours when calculating an FTE. Based on GMENAC assumptions of three-tenths of an APRN, CNM or PA-C for every primary care physician, the Vermont Department of Health has considered it a shortage if there is less than one APRN/CNM/PA-C for every three primary care physicians in a region. Thus,

the benchmark calculation for analyzing the primary care survey is one APRN/CNM/PA-C FTE for every three FTE physicians per 100,000 population.

It should be further noted that for the purposes of this analysis, Advanced Practice Registered Nurse is the term used to describe Nurse Practitioners, as that is the name used by the Board of Nursing in Vermont.

Analysis of Primary Care Need: AHEC uses the same benchmark as the Vermont Department of Health, which is based on guidelines from the Graduate Medical Education National Advisory Committee Report (GMENAC, 1981). The GMENAC benchmark for the distribution of primary care physicians per population in a geographic region is: 80.5 Full-Time Equivalent (FTE) Primary Care Physicians per 100,000 population across the four primary care specialties. Given the estimated Vermont population at the time of the data collection, 621,270 (U.S. Census, VT estimated population, July 2008), the number of primary care physicians required to yield an adequate supply by this benchmark is 501 MD/DO FTEs for Vermont's population. For APRNs, CNMs and PA-Cs, the benchmark used is one for every three FTE primary care physicians. The statewide benchmark for an adequate supply of APRN/CNM/PA-Cs combined is 167 FTEs.

GMENAC PHYSICIAN RECOMMENDATIONS

Overall Primary Care	80.5 primary care physicians per 100,000
Family Medicine	32.5 FM physicians per 100,000
Internal Medicine	28.1 IM physicians per 100,000
Obstetrics/Gynecology	9.2 OB/GYN physicians per 100,000
PED	10.7 PED physicians per 100,000

Calculations: All calculations are carried out to second decimal (100ths) place. Results are rounded to the nearest whole number for presentation in this report.

Shortages: Shortages are defined as one or more practitioners (in whole numbers) below the guidelines set forth for physicians and other primary care practitioners.

Small Discrepancies Due to Rounding: Presentation of whole numbers in the tables and text of this report are accompanied by the note that small discrepancies are due to rounding (e.g., $8-8=0$, $8-7=2$ or $24+25+25+25=100$). Rounding has only occurred in the final step, in the presentation of aggregate data by county, specialty, and discipline.

Net Changes in Supply and Distribution: Numbers in this report are presented in the aggregate. Identifying "no change" in total supply from 2008 to 2009 is not meant to infer that no practitioners have left the state and no new practitioners have arrived. In fact, the primary care workforce remains very dynamic. In order to maintain an adequate workforce supply, new practitioners will always be needed to replace those who leave for retirement or other reasons. The same number of practices or practitioners from 2008 to 2009 means no net gains or losses despite the departure of some and the addition of others. In this report, the focus is on adequate supply. Where there is not an adequate supply from one year to another, there may be a lot of change, but no net increase to bring the workforce up to adequate supply.



Connecting students to careers, professionals to communities, and communities to better health.

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