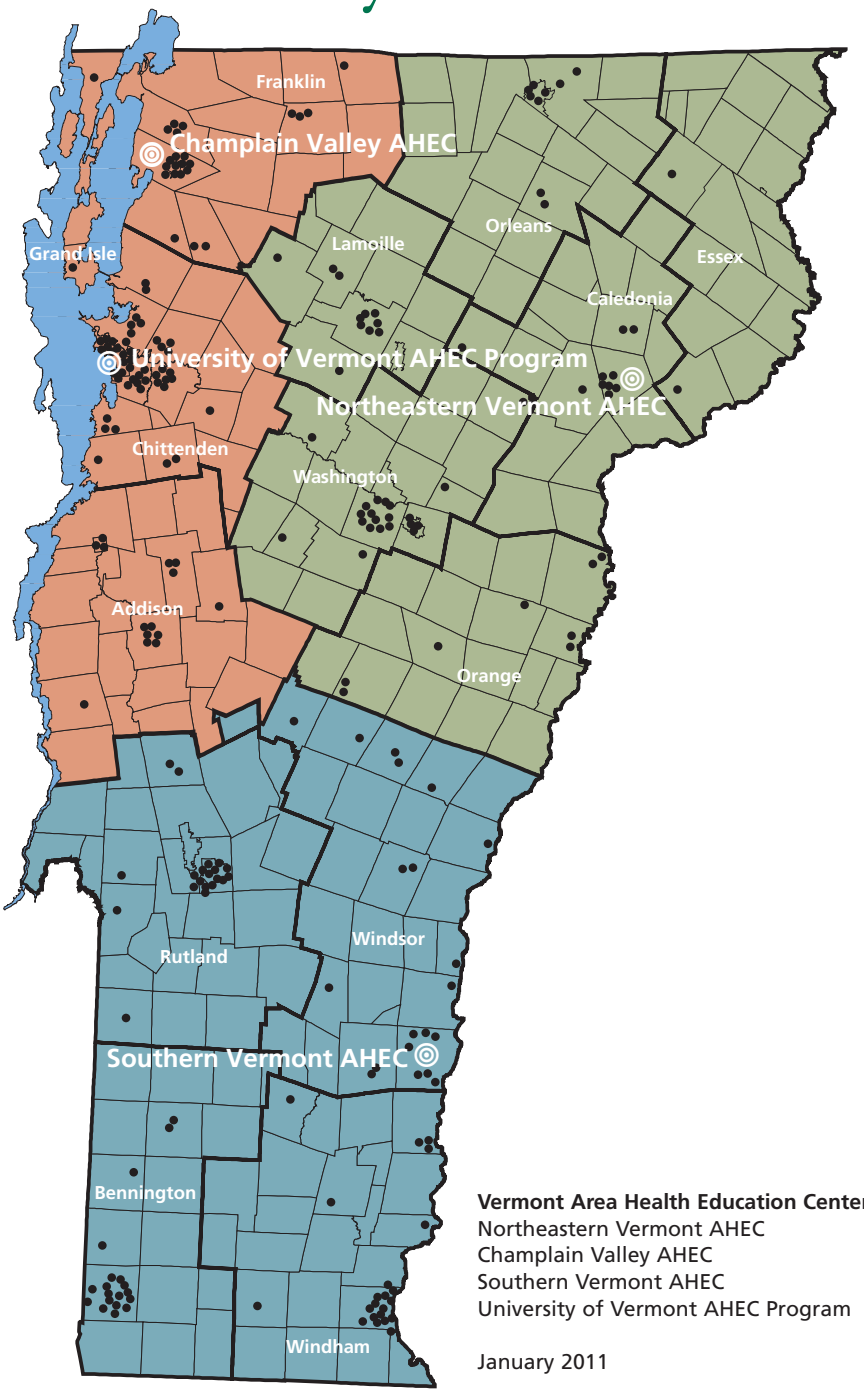
The Vermont Primary Care Workforce



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

January 2011

● Primary Care Practice Site

About Vermont AHEC

The Vermont Area Health Education Centers (AHEC) Program, in collaboration with many partners, improves access to quality health care 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 rural areas and 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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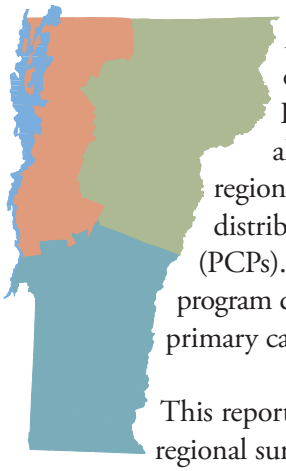
2010 PRIMARY CARE WORKFORCE SUMMARY – PROGRESS & CHALLENGES



Annually, each of the three community-based Area Health Education Centers (AHECs) surveys all primary care practices in its region to get a snapshot of the supply and distribution of primary care practitioners (PCPs). This inventory guides AHEC's program development and highlights emerging primary care workforce trends in Vermont.

This report is a compilation of the three regional surveys. It reflects a point-in-time and is intended to supplement the comprehensive survey of each physician conducted by the Vermont Department of Health every two years during relicensing.

Based on actual office hours submitted by each practice, this report aggregates the PCP workforce by:

- Primary care disciplines – physicians (MD/DOs), advanced practice registered nurses (APRNs), certified nurse midwives (CNMs), and certified physician assistants (PA-Cs);
- Geographic regions – county, multi-county AHEC region, and statewide; and
- Primary care specialties/patient populations – family medicine (FM/children-adults), internal medicine (IM/adults), obstetrics–gynecology (OB-GYN/women), and pediatrics (PED/children).

The analysis compares PCPs by region and specialty to external, nationally-recognized benchmarks and reports change across time. For comparisons, PCP workforce is expressed in Full-Time Equivalents (FTEs), rather than as individuals (i.e., head count) to standardize part-time and full-time clinical care. For more details about FTEs, see Endnotes, pp. 10-11.

Primary Care Workforce – Some Progress Has Been Made (in FTEs)

- Since 2009 there has been a net gain statewide of two primary care physicians and eight other PCPs; however, there remains a shortfall of 25 physicians and seven other PCPs.
- While some gains have been made since 2009, five of the six counties in **Northeastern Vermont** are still in need of physicians.
- In the **Champlain Valley**, Franklin County showed some improvement, but is still one of the most underserved areas in VT. The ample supply of obstetrics–gynecology and pediatric physicians in this region obscures the pervasive need for adult primary care physicians.
- **Southern Vermont** has experienced a net loss of physicians and other PCPs since 2009, due to declines in Rutland and Windsor Counties. Rutland County continues to experience the greatest overall need for primary care physicians in Vermont.

Workforce Challenges Persist for Adult Primary Care (in FTEs)

- There is a persistent and pervasive shortfall of internal medicine physicians in every region of Vermont. IM physicians serve adults in primary care.
- At first glance, the supply of family medicine physicians looks generally adequate statewide. However, FM physicians, who serve both adults and children, do not make up for the shortfall of IM physicians across Vermont. Eleven of Vermont's 14 counties do not have an adequate supply of FM/IM physicians combined. Supply of FM physicians also varies by region.
- The supply of advanced practice registered nurses and physician assistants in family medicine looks adequate statewide; however, it obscures the shortfall of PCPs in internal medicine and pediatrics. There is an overall shortfall of these practitioners to adequately serve Vermonters.
- The percent of IM and FM practitioners limiting or closing their practices to new patients further illustrates the stress on the adult primary care workforce to provide services to all Vermonters.
- The supply of pediatricians in the Champlain Valley and obstetricians-gynecologists in Chittenden County obscures the inadequate supply of these physicians in other regions of the state.

Ongoing Work to Strengthen the Primary Care Workforce

There is significant activity underway in Vermont to address pipeline development, recruitment, and retention of the primary care workforce. See p. 2 for examples.

Examples of ongoing work to strengthen the primary care workforce include:

- AHEC provides health career exploration programs for youth in middle and high schools throughout Vermont to support development of the next generation (i.e., the pipeline) of healthcare workers.
- AHEC provides support for and engagement of health professions students at the University of Vermont and residents at Fletcher Allen Health Care to encourage future practice in Vermont.
- 41% of Vermont's primary care physicians have received their training from the University of Vermont College of Medicine and/or Fletcher Allen Health Care Residency Programs.
- 54% of currently practicing primary care physicians in Vermont have had their educational debt reduced in exchange for a service commitment through programs administered by Vermont AHEC and the UVM College of Medicine:
  - Vermont Educational Loan Repayment Program for Primary Care Practitioners,
  - Freeman Educational Loan Repayment for Physicians, and
  - Freeman Medical Scholars Program
- 71 Freeman Medical Scholar physicians (all specialties, including primary care) are caring for Vermonters in every region of the state. Many more are still in training and will start practice in Vermont during the next decade.
- AHEC/Freeman recruitment data currently show 51 primary care physician vacancies in Vermont. This is based on vacancies reported by hospitals and practice sites including those with federal designations.

This snapshot aggregates information about the primary care workforce based on clinical hours. It identifies problems in access to primary care where there are inadequate supplies of PCPs in geographic regions and primary care specialties.

We expect that national benchmarks will evolve to identify the number of PCPs needed per capita as health care reforms focus on prevention and chronic disease management in primary care and payment reform. For example, Massachusetts' recent experience with health care reform, i.e., health insurance for all, illustrates that the demand for primary care practitioners exceeds availability in the state which has been reported to have the highest per capita ratio of primary care physicians.

Wherever the bar is set, the areas of mal-distribution identified in this report will continue to reflect the regions of Vermont and the primary care specialties where the greatest challenges exist for Vermonters to access primary care.

With the growing numbers of elderly Vermonters and accompanying increases in chronic illnesses, the aging of the workforce itself, and the smaller supply of new primary care physicians nationally, it is essential to sustain and enhance Vermont's high quality primary care workforce. This includes focused efforts to cultivate the next generation of healthcare professionals among Vermont's youth and continued work to recruit and retain a high quality primary care workforce in Vermont.

PRIMARY CARE PRACTITIONER WORKFORCE – 2010 STATEWIDE FINDINGS

In Vermont, there are 226 primary care practice sites. There are 550 individual physicians (MD/DOs) and 249 other PCPs: advanced practice registered nurses (APRNs), certified nurse midwives (CNMs), and certified physician assistants (PA-Cs).

All information presented in the sections to follow is reported in Full-Time Equivalents (FTEs) to standardize the clinical effort of part-time and full-time practitioners. Charts and maps are highlighted if there is a shortfall of one or more FTE practitioner.

Number of Primary Care Practitioners in FTEs

Based on the population of Vermont, 621,760 (U.S. Census, VT estimated population, July 2009), the number of primary care practitioners needed to yield an adequate supply of PCPs is 500.5 physician FTEs and 167 APRN, CNM, and PA-C FTEs (see Endnotes for detail on benchmarks, pp. 10-11).

1. There are 476 physician FTEs which is a shortfall of 25 physician FTEs across all primary care specialties. This is a net gain of two physician FTEs since 2009.
2. There are 160 APRN, CNM, and PA-C FTEs which is a shortfall of seven PCPs. This is a net gain of eight APRN and CNM FTEs (combined) since 2009. The current distribution is:

Disciplines	No. APRNs, CNMs PA-Cs (combined)	No. in FTEs*	Recommended in FTEs (combined)*	Supply in FTEs*
Advanced Practice Registered Nurses	130	83		
Certified Nurse Midwives	41	19		
Certified Physician Assistants	78	57		
TOTAL*	**249**	**160**	**167**	**-7**

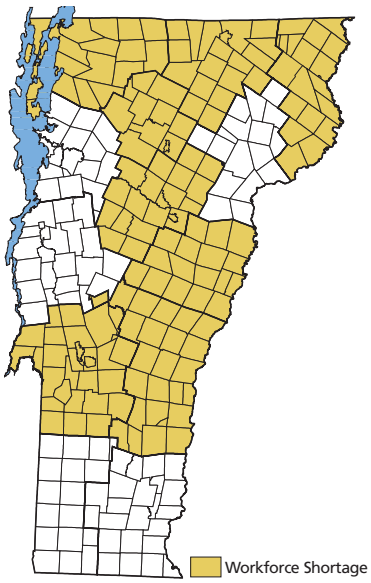
*small discrepancies are due to rounding

Addressing the Needs of Vermonters Where They Live: Supply and Distribution by County in FTEs

3. In 2010, nine counties show an overall shortfall in total primary care physician FTEs, which is an improvement from 11 counties in 2009. Caledonia and Bennington Counties now have a just adequate supply of primary care physicians. Those with shortages are highlighted:

	County	No. Practice Sites	No. MD/DOs	No. MD/DOs in FTEs*	Recommended MD/DOs in FTEs*	Supply in FTEs*	County Population (2009 est.)
Northeastern	Caledonia	10	29	25	24	1	30,252
	Essex	2	2	2	5	-3	6,394
	Lamoille	11	21	18	21	-2	25,958
	Orange	8	23	18	23	-5	28,896
	Orleans	9	17	17	22	-5	27,301
	Washington	21	48	46	47	-1	58,696
Champlain	Addison	14	36	32	30	3	36,760
	Chittenden	47	176	140	123	18	152,313
	Franklin	22	30	28	39	-10	48,182
	Grand Isle	2	2	1	6	-5	7,560
Southern	Bennington	19	31	29	29	0	36,411
	Rutland	20	42	39	51	-12	63,014
	Windham	22	47	40	35	5	43,471
	Windsor	19	46	39	46	-7	56,552
	TOTAL*	**226**	**550**	**475.5**	**500.5**	**-25**	**621,760**

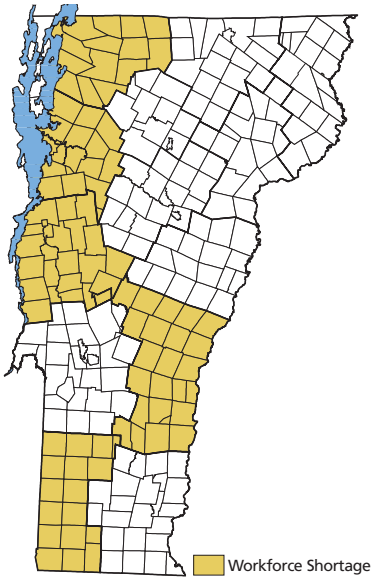
*small discrepancies are due to rounding



4. In 2010, five counties show an overall shortfall in APRN, CNM, and PA-C (combined) FTEs. This is a net improvement from 2009 when six counties showed a shortfall. Lamoille and Grand Isle Counties have improved to a just adequate supply. Windsor County has dropped to below an adequate supply. Those with shortages are highlighted:

	County	No. APRNs, CNMs & PA-Cs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Northeastern	Caledonia	14	9	8	1
	Essex	3	2	2	0
	Lamoille	11	7	7	0
	Orange	17	8	8	0
	Orleans	13	12	7	4
	Washington	29	18	16	2
Champlain	Addison	12	7	10	-3
	Chittenden	57	34	41	-7
	Franklin	14	10	13	-3
	Grand Isle	3	2	2	0
Southern	Bennington	9	7	10	-3
	Rutland	22	17	17	0
	Windham	23	14	12	3
	Windsor	22	14	15	-2
	TOTAL*	**249**	**160**	**167**	**-7**

*small discrepancies are due to rounding



Supply and Distribution by Region in FTEs

5. In the Northeastern Vermont region, there are primary care physician shortages across five of the six counties, combining all specialties. There is an adequate supply of other PCPs.
   - There has been a net improvement in Caledonia County from a shortfall of primary care physicians in 2009 to an adequate supply in 2010.
   - The counties of greatest need for primary care physicians are Essex, Orange, and Orleans Counties.
6. In the Champlain Valley, Franklin County continues to experience the greatest need, combining primary care physicians and other PCPs.
   - There has been a net improvement of two physician FTEs in Franklin County since 2009, but a shortfall still exists of ten physician FTEs and three other PCP FTEs.
   - The abundance of obstetricians-gynecologists and pediatricians in this region obscures the shortfall for family and internal medicine physicians in the region.
7. In Southern Vermont, there has been an overall loss of physician and other PCP FTEs since 2009.
   - Rutland County continues to experience the greatest need for primary care physicians across specialties, with a shortfall of 12 physician FTEs. This is a net loss of 3 physician FTEs since 2009.
   - Windsor County also has a shortfall of both physician and other PCP FTEs.

Supply and Distribution by Specialty in FTEs

Charts and maps are highlighted if there is a shortfall of one or more FTE practitioners.

8. The shortfall of 25 primary care physician FTEs disproportionately affects adults in Vermont. There is a shortfall of 54 internal medicine physician FTEs. This is obscured when the overall supply averages internal medicine physicians with obstetricians-gynecologists and pediatricians statewide.

Primary Care Specialties	No. MD/DOs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	238	200	202	-2
Internal Medicine	132	121	175	-54
Obstetrics–Gynecology	72	63	57	6
Pediatrics	108	91	67	25
Total*	**550**	**475.5**	**500.5**	**-25**

*small discrepancies are due to rounding

9. The current shortage (-54) of internal medicine physicians is similar to the shortage of 56 in 2009 and 54 in 2008.

10. Family medicine physicians, who care for both adults and children, show a generally adequate supply in FTEs statewide, but supply and distribution vary by region. This is similar to findings in 2009 and 2008.

11. A county-by-county review of the supply of family and internal medicine physicians combined (see highlighted maps, bottom of pp. 7-9), shows that:
    - Eleven of Vermont's 14 counties are experiencing a shortage in adult primary care physicians;
    - Shortages in adult primary care include Chittenden County, Vermont's largest county;
    - Lamoille, Washington, and Windham Counties are not experiencing this shortage, however the supply of FMs and IMs combined is just adequate.

12. The shortfall of adult primary care physicians is not a case of mal-distribution, but widespread shortage.

13. The supply of obstetricians-gynecologists varies by region. The supply of obstetrics–gynecology physician FTEs statewide (+6), is the result of averaging of the ample supply in Chittenden County (+12) and a shortfall of six physician FTEs outside of Chittenden County (see pp. 7-9).

14. Pediatrician supply varies by region. The overall supply of pediatrician FTEs statewide is an averaging of the ample supply (+21) in the Champlain Valley Region, but just adequate to shortfalls in other regions (see pp. 7-9).

15. Examination of APRNs and PA-Cs further demonstrates an overall shortage in adult primary care. There is a shortfall of 37 APRNs and PA-Cs in internal medicine and a shortfall of five in pediatrics statewide. For these practitioners the shortfalls in internal medicine and pediatrics are not offset by the ample supply of APRNs and PA-Cs in family medicine.

Primary Care Specialties	No. APRNs, CNMs PA-Cs (combined)	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	134	95	67	28
Internal Medicine	31	21	58	-37
Obstetrics–Gynecology	53	26	19	7
Pediatrics	31	17	22	-5
Total*	**249**	**160**	**167**	**-7**

*small discrepancies are due to rounding

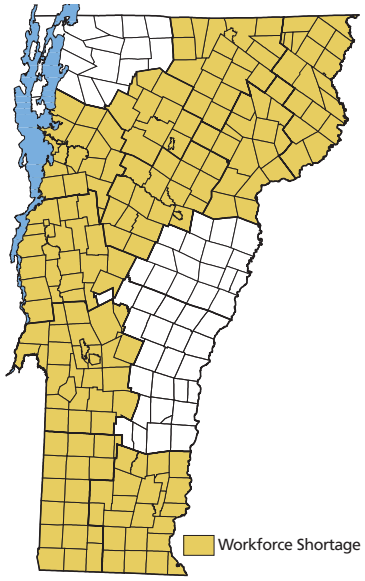
Practitioners Limiting or Not Accepting New Patients

Another indicator of access to care is reflected in the proportion of primary care practitioners who limit or close their practice to new patients. Examples of limiting new patients include PCPs who only accept new family members of current patients or only accept new patients if they are from the town in which their practice is located.

Regions which have one-quarter or more PCPs with limited or closed practices are highlighted.

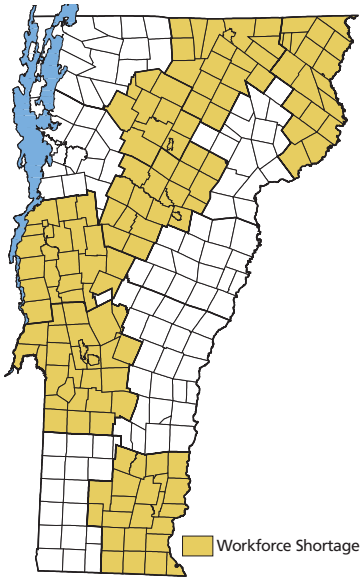
16. Ten counties now show at least one-quarter of all primary care physicians are limiting or not accepting new patients. This is an increase of one county (Rutland) since 2009.
17. 36% of primary care physicians across all specialties are either limiting their acceptance or not accepting new patients. This is an increase from 34% in 2009 and 31% in 2008.
18. 86% of the individual physicians who have limited or closed their practice are from the FM or IM primary care specialities. In fact, about half (47%) of the FM and IM physicians have limited or closed their practice to new patients. This is similar to 2009.

	County	Physicians Limited/ Closed Practice
Northeastern	Caledonia	55%
Northeastern	Essex	50%
Northeastern	Lamoille	62%
Northeastern	Orange	18%
Northeastern	Orleans	47%
Northeastern	Washington	71%
Champlain	Addison	40%
Champlain	Chittenden	31%
Champlain	Franklin	23%
Champlain	Grand Isle	0%
Southern	Bennington	26%
Southern	Rutland	36%
Southern	Windham	30%
Southern	Windsor	24%
	TOTAL AVERAGE STATEWIDE	**36%**



19. Seven counties show at least one-quarter of APRNs, CNMs, and PA-Cs combined are limiting or not accepting new patients, which is an improvement from eight counties in 2009.
20. 31% of APRNs, CNMs, and PA-Cs across all specialties are limiting or not accepting new patients. This is up from 27% in 2009.
21. 79% of APRNs, CNMs, and PA-Cs who have limited or closed their practice are in FM or IM practices. About one-third (36%) of APRNs and PA-Cs in FM and IM have limited or closed their practice to new patients.

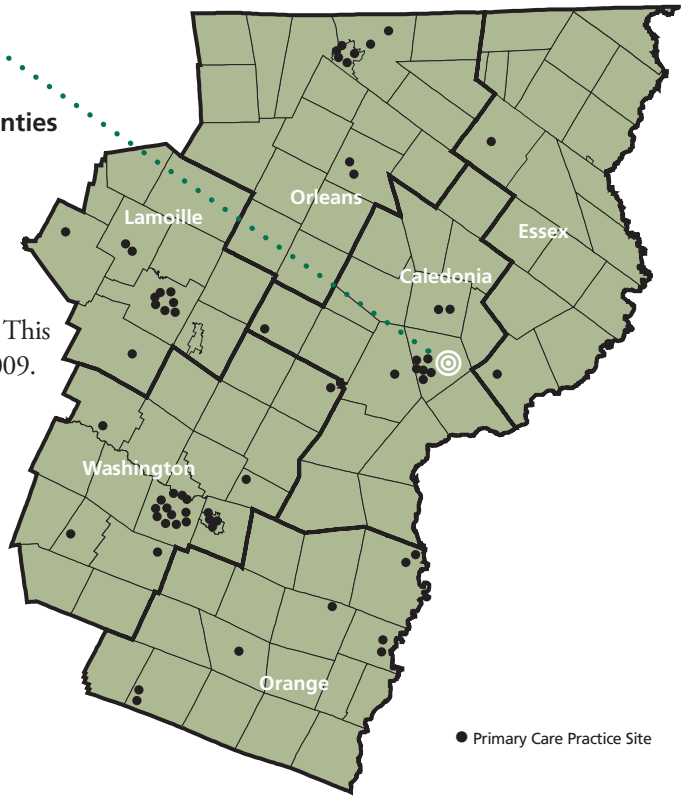
	County	APRN, CNM, PA-C Limited/Closed Practice
Northeastern	Caledonia	21%
Northeastern	Essex	67%
Northeastern	Lamoille	57%
Northeastern	Orange	18%
Northeastern	Orleans	62%
Northeastern	Washington	56%
Champlain	Addison	36%
Champlain	Chittenden	22%
Champlain	Franklin	24%
Champlain	Grand Isle	0%
Southern	Bennington	11%
Southern	Rutland	45%
Southern	Windham	26%
Southern	Windsor	0%
	TOTAL AVERAGE STATEWIDE	**31%**



Northeastern Vermont AHEC

Caledonia, Essex, Lamoille, Orange, Orleans, and Washington Counties
There are 61 primary care practices in this six-county region of 177,497 Vermonters (U.S. Census, VT estimated population, July 2009). 140 primary care physicians and 87 APRNs, CNMs, and PA-Cs yield a total primary care workforce of 227 individual practitioners (PCPs).

Converted to FTEs, there are 126 physician FTEs and 56 other PCP FTEs. This is a net increase of three physician FTEs and three other PCP FTEs since 2009.



Supply and Distribution by County in FTEs

While the overall supply of PCPs has increased since 2009, there are still shortfalls of 17 primary care physician FTEs in all but Caledonia County, which is at an adequate level combining all primary care specialties (see p. 3). The counties with the greatest need for physicians across primary care specialties are Essex, Orange, and Orleans. The supply of other PCPs in this region is at just adequate levels across the region (see p. 4).

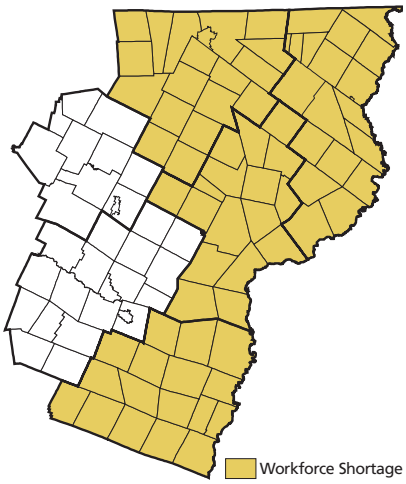
Supply and Distribution by Specialty in FTEs

There is a pervasive shortage of physicians in adult primary care, i.e., internal medicine. Combining the efforts of internal medicine and family medicine physicians, who serve both adults and children, there are shortfalls of at least one and up to seven physician FTEs in Caledonia, Essex, Orange, and Orleans Counties, as shown in the highlighted areas on the map below.

Primary Care Specialties (MD/DOs)	No. MD/DOs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	68	60	58	2.5
Internal Medicine	33	32	50	-18
Obstetrics–Gynecology	16	15	16	-1
Pediatrics	23	19	19	0

*small discrepancies are due to rounding

There is a small shortfall of obstetrics–gynecology physician FTEs in the region, which changed from an adequate supply in 2009. Essex, Lamoille, and Orange Counties all show some need for these physicians. Neighboring counties in the region are at just adequate levels. This may be leading to some women having to travel long distances for these services.



While the overall picture of the six-county region shows an adequate supply of pediatrician FTEs, at the county level there is a shortfall of one or two physicians in Lamoille and Washington Counties. Since there is an overall shortfall of internal medicine physician FTEs, and some pediatric shortages, this puts pressure on the current workforce, including the family medicine physicians, to address the needs of both children and adults in the region.

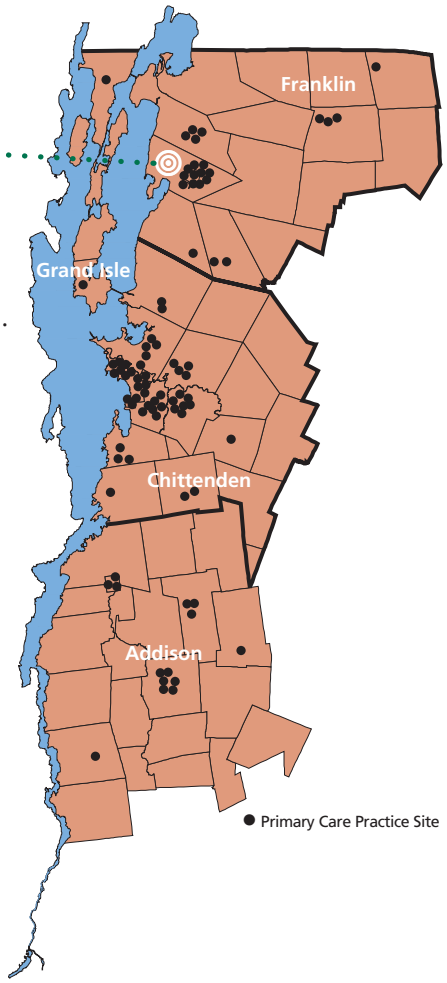
PCPs Limiting or Not Accepting New Patients

In this six-county region, there has been a net increase in the number of primary care physicians. However, 55% have limited or closed their practice; this is above the statewide average of 36%. It was 50% in this region in 2009. The percent of APRNs, CNMs and PA-Cs who have limited or closed their practice has risen from 31% to 44%, also above the statewide average of 31%.

Caledonia, Essex, Lamoille, Orleans and Washington Counties continue to show very high percentages of physicians limiting or not accepting new patients, ranging from 47%-71%. The last four also show other PCPs, as well, are limiting/not accepting new patients at relatively high rates: 36%-67% (see p. 6).

Across all primary care physicians, three-quarters (76%) of those who have limited or closed their practice to new patients are in FM or IM. In fact, two-thirds (67%) of the FM and IM physicians have limited or closed their practices to new patients in this region.

Champlain Valley AHEC



Addison, Chittenden, Franklin and Grand Isle Counties

There are 85 primary care practices in this four-county region of 244,815 Vermonters (U.S. Census, VT estimated population, July 2009). 244 primary care physicians and 86 APRNs, CNMs, and PA-Cs yield a total primary care workforce of 320 individual practitioners (PCPs).

Converted to FTEs, there are 202 physician FTEs and 52 other PCP FTEs. This is a net increase of three physician FTEs and eight other PCP FTEs since 2009.

Supply and Distribution by County in FTEs

While the overall supply of PCPs has increased since 2009, there are still shortfalls of 10 primary care physician FTEs in Franklin County and five in Grand Isle County (see p. 3). Franklin County did have a net gain of two physician FTEs since 2009.

The ample supply of primary care physicians in Chittenden and Addison Counties is the result of high numbers of obstetricians–gynecologists and pediatricians in the region, with an inadequate supply of family and internal medicine physicians.

The region is below adequate supply of APRNs, CNMs, and PA-Cs in Addison, Chittenden and Franklin Counties combining all primary care specialties (see p. 4).

Chittenden County, home to one-quarter of the Vermont population, is also home to 30% (140/475.5) of the primary care physician workforce in FTEs.

Supply and Distribution by Specialty in FTEs

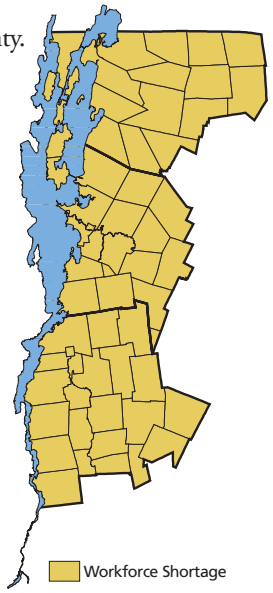
The data indicate that there is an ample supply of primary care physicians across the region; however, there is a pervasive shortage in adult primary care when isolating the efforts of internal medicine physicians, who care for adults, and family medicine physicians, who care for both adults and children. Shortfalls are: three FM/IM in Addison, three in Grand Isle, seven in Chittenden, and 13 in Franklin County, as shown in the highlighted areas on the map below.

Primary Care Specialties (MD/DOs)	No. MD/DOs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	87	67	80	-12
Internal Medicine	61	55	69	-14
Obstetrics–Gynecology	40	32	23	10
Pediatrics	56	48	26	21

*small discrepancies are due to rounding

Supply of obstetrics–gynecology physician FTEs varies by county. There is a positive supply of 12 FTEs in Chittenden, an adequate supply in Addison and Franklin, and a need for one physician FTE in Grand Isle County.

Supply of pediatrician FTEs varies by county. There is a positive supply of six in Addison, 13 in Chittenden, and three in Franklin County, but a shortfall of one peditrician FTE in Grand Isle County.



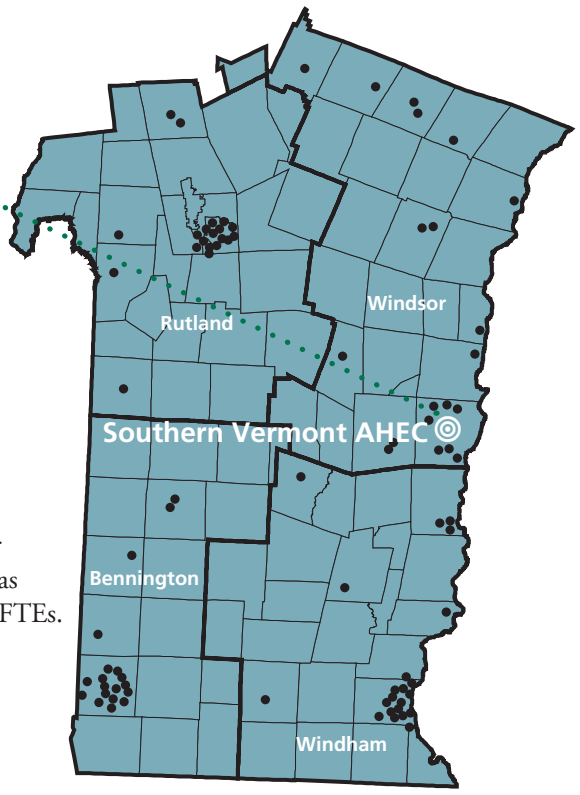
PCPs Limiting or Not Accepting New Patients

31% of physicians and 24% of other PCPs in this region are limiting or not accepting new patients, which is below the overall state averages (p. 6).

Addison and Chittenden Counties show the largest percent of physicians limiting or not accepting new patients in the region at 40% and 31%. Addison County also shows the highest proportion in the region of other PCPs not accepting new patients at 36%.

In this four-county region, for all the primary care physicians, 84% of those who have limited or closed their practice to new patients are in FM or IM, which is consistent with the shortages of these PCP physicians in the region. In fact, 43% of the FM and IM physicians have limited or closed their practices to new patients.

Southern Vermont AHEC



Bennington, Rutland, Windham, and Windsor Counties
There are 80 primary care practices in this four-county region of 199,448 Vermonters (U.S. Census, VT estimated population, July 2009). 166 primary care physicians and 76 APRNs, CNMs, and PA-Cs yield a total primary care workforce of 242 individual practitioners (PCPs).

Converted to FTEs, there are 147 physician FTEs and 52 other PCP FTEs. This is a net loss of five physician FTEs and three other PCP FTEs since 2009.

Supply and Distribution by County in FTEs
Across all PCP specialties, there is a shortfall of seven physician FTEs in Windsor County and 12 in Rutland County (see p. 3). For Rutland County, the picture has worsened from that in 2009, when the shortfall was nine primary care physician FTEs.

Windsor and Windham Counties also experienced losses in physician FTEs. A small gain in Bennington County has put this county at adequate supply.

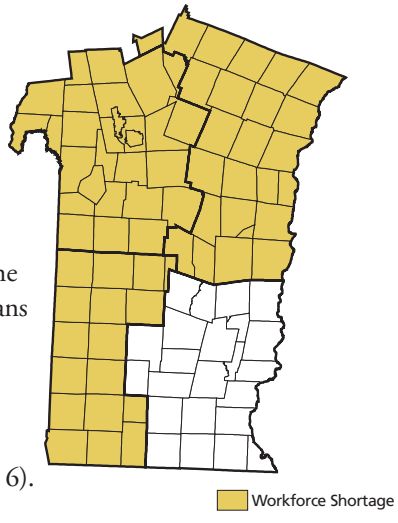
The supply of APRN, CNM, and PA-C FTEs varies by county with shortfalls of three in Bennington and two in Windsor County (see p. 4).

Supply and Distribution by Specialty in FTEs
Analysis by primary care specialties indicates significant shortages in adult primary care and obstetrics–gynecology.

Primary Care Specialties (MD/DOs)	No. MD/DOs	No. in FTEs*	Recommended in FTEs*	Supply in FTEs*
Family Medicine	83	73	65	8
Internal Medicine	39	34	56	-22
Obstetrics–Gynecology	16	15	18	-3
Pediatrics	29	24.5	21	3

*small discrepancies are due to rounding

In three of the four counties in this region, there is an overall shortage in adult primary care when combining the efforts of internal medicine physicians, who care for adults, and family medicine physicians, who care for both adults and children. The shortfalls are in Bennington, Windsor, and Rutland Counties, as shown in the highlighted areas on the map below.



The region continues to have a shortfall of obstetrics–gynecology physicians in Rutland and Windsor Counties.While the region has an overall adequate supply of pediatricians, Rutland County has a slight shortfall.

In Rutland County, since there is an overall shortage of internal medicine physician FTEs, and some pediatric shortages, this puts pressure on the otherwise adequate supply of family medicine physicians to address the needs of children and adults in the region.

PCPs Limiting or Not Accepting New Patients
In this four-county region, the percent of primary care physicians who have limited or closed their practice has remained similar to the 2009 rate at 29%, which is below the statewide average (see p. 6).

For all the primary care physician specialties combined, 88% of those who have limited or closed their practice to new patients are in FM or IM. This is consistent with the shortages of these PCP physicians in the region. In fact, 35% of the FM and IM physicians have limited or closed their practices to new patients.

22% of the APRNs, CNMs, and PAC-s have limited or closed their practice to new patients, which is also below the statewide average (p. 6). This is some improvement since 2009 when it was 34%.

ENDNOTES

Primary Care Practice: Office or clinic which offers general primary care to adults and/or children, an ongoing relationship between a PCP and the patient, comprehensive care, continuity of care, and coordination of care in family medicine, general internal medicine, general obstetrics–gynecology, and general pediatrics.

Sites which are not included are: walk-in/immediate/acute care clinics, school-based clinics, free clinics, planned parenthood clinics, college health centers, Department of Corrections facilities, sites for at-risk youth, sites for homeless people, nursing homes, residential assisted-living facilities, and Veterans Administration clinics. While some primary care services are delivered at these sites, they are not considered primary care sites with full community access, comprehensive care, and continuity of care.

Primary Care Disciplines and Specialties: Primary care disciplines and specialties in this report are guided by Graduate Medical Education National Advisory Committee (GMENAC) and Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services standards and methodologies.

Survey of Primary Care Practitioner (PCP) Workforce: Office administrators from all 226 primary care practices in Vermont were surveyed by AHEC and responded during a 2-month period in the spring. In most cases, the practice receives last year's survey from their regional AHEC and updates personnel and their in-office patient hours, i.e., the hours blocked-in for each practitioner to see patients. The hours reflect the current, typical, weekly office hours of each PCP at the practice site. PCPs include physicians (MD/DOs), advanced practice registered nurses (APRNs, often referred to as "nurse practitioners"), certified nurse midwives (CNMs), and certified physician assistants (PA-Cs). Per diem PCPs are not included if the practitioner is temporary and the practice is searching for a permanent PCP.

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 HRSA to measure physician shortage areas in geographic regions (http://bhpr.hrsa.gov/shortage/hpsaguidepc.htm).

HRSA PHYSICIAN FTE METHODOLOGY

Primary Care Specialty	Office Hours		Adjustment Factor		Hours Per Week		Full-Time Equivalent
Family Medicine	#	x	1.4	÷	40	=	FTE
Internal Medicine	#	x	1.8	÷	40	=	FTE
Obstetrics–Gynecology	#	x	1.9	÷	40	=	FTE
Pediatrics	#	x	1.4	÷	40	=	FTE

An upward adjustment of office hours 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. The adjustment also reflects hours spent outside of the office involved in patient care which may include: care at the hospital, nursing home, emergency department, or care in the patient's home.

No physician is assigned to be more than one FTE, even if their adjusted hours exceed 40 per week. If the physician's typical week is less than 40 hours after the adjustment, they are considered less than one FTE, which is calculated to two decimal places (100th place).

APRN, CNM, and PA-C Full-Time Equivalent (FTE): Calculating a Full-Time Equivalent for these PCPs is also based on the current, typical, weekly patient in-office hours. One FTE is 40 hours per week. FTEs are calculated to two decimal places (100th place).

Aggregating FTEs by Category: Aggregated FTEs by discipline (MD/DOs and other PCPs combined), primary care specialty, and region are represented in whole numbers in this report.

PCPs with more than one primary care specialty or who work at more than one practice site have their FTE split proportionately. No individual PCP can be assigned more than one FTE across specialties or practice sites.

Small Discrepancies Due to Rounding: Presentations of whole numbers in the charts are accompanied by the note that small discrepancies in aggregated totals are due to rounding. For example: 24.40+25.40+25.40+25.20 = 100.40 is presented as 24+25+25+25=100. While all calculations are carried out to two decimal places, final numbers are then presented in whole numbers in this report.

Benchmark to Identify Adequacy/Shortage: AHEC uses the same benchmark as the Vermont Department of Health, which is based on guidelines from the GMENAC (1981). The GMENAC benchmark for the distribution of primary care physicians per population in a geographic region, for each primary care specialty is:

GMENAC PHYSICIAN RECOMMENDATIONS

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
Pediatrics	10.7 PED physicians per 100,000

Given the estimated Vermont population of 621,760 (U.S. Census, VT estimated population, July 2009) at the time of the data collection, the number of primary care physicians required to yield an adequate supply in Vermont is 500.5. Based on GMENAC assumptions of an additional 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 and/or CNM and/or PA-C for every three primary care physicians in a region.

Preliminary report of 2010 U.S. Census data projects a 2.8% increase in the Vermont population to 625,741.

Limitations of the GMENAC Benchmark: Since the research establishing the GMENAC benchmarks was in the early 1980s, factors such as the aging population, which places additional demands on the healthcare system, the changing nature of the delivery of primary care practice with more focus on prevention and management of chronic illness, the scope of practice and availability of APRNs, CNMs, and PA-Cs in primary care, and other factors, suggest the need for updating the benchmarks to re-set the bar of PCPs per capita. However, areas of mal-distribution identified in this report continue to reflect the regions in the state and primary care specialties which pose the greatest challenges for Vermonters to access primary care.

Shortages in FTEs: Shortages are defined as one or more practitioners (in whole numbers) below the benchmarks set forth above for physicians and other PCPs.

Impact of Physician Hospitalists on the Primary Care Workforce: Primary care workforce effort is based on hours scheduled to see patients at the primary care site. Some practices are able to add patient office hours to physician schedules as a result of their relationship with physician hospitalist services. Hospitalists care for community-based primary care physicians' patients during their hospitalizations. While this impact is not specifically measured, the additional patient office hours are in the cumulative FTE totals presented in this report.

Net Changes in Supply and Distribution: Numbers in this report are presented in the aggregate. Identifying "no change" in total supply across time, or only small changes, is not meant to infer that PCPs have not left practice or have not been recruited. In fact, the PCP workforce is very dynamic in communities all across Vermont, with some starting practice and others leaving.

In order to maintain an adequate workforce supply, new practitioners will always be needed to replace those who leave for retirement or other reasons. Thus, the same or similar numbers of PCPs across time means that there has been little to no net gains or losses, despite the departure of some and addition of others.

In this report, the focus is on the supply of PCPs. Where there is not an adequate supply from one year to the next, there may be fluctuation during the year in the actual PCP workforce numbers, but no net increase. This results in a continuing inadequate supply across time.

Primary Care Survey

PRACTICE NAME _____ DATE OF COMPLETION _____

PHYSICAL TOWN OF PRACTICE _____

CONTACT PERSON _____ CONTACT EMAIL _____ CONTACT TELEPHONE _____

Please include all MDs, DOs, APRNs, CNMs, and PA-Cs who see patients at your practice site. Indicate office hours, not including call, rounds or administrative time.

Practitioner Name	Degree/ Certificate	Specialty	In-Office Patient Hours Per Week	Accepting New Patients? Yes	No	Limited to:

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

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