

## **Access to Care Plan**

### **Department of Vermont Health Access**

#### **Introduction**

Vermont's Medicaid program is delivered through the Global Commitment to Health Waiver (an 1115 Waiver). The Vermont Agency of Human Services (AHS) serves as the lead Medicaid entity for the State and delegates responsibility for the delivery of most Medicaid services to the Department of Vermont Health Access (DVHA). In accordance with the Global Commitment to Health Waiver, DVHA uses a managed care model for the delivery of Medicaid services across the State of Vermont and must comply with most of the provisions of 42 CFR § 438. With the creation of this report, Vermont is also aligning with fee-for-service access requirements at 42 CFR § 447.203. The Department's activities regarding access to care are designed to ensure that the Medicaid provider network has a sufficient range and quantity of providers, is easily accessible to members, and complies with federal network access requirements.

In addition to the development of this Access to Care Plan, which will be updated every three years and posted on its public website, DVHA conducts the following monitoring and network-building activities:

- Twice per year, DVHA generates GIS maps and charts that show the actual distances members are traveling to seek care. These maps are reviewed with the Provider and Member Relations (PMR) Director, the Compliance Director, and the Managed Care Compliance Committee to determine any needed actions.
- DVHA receives weekly reports from its fiscal agent detailing newly enrolling providers as well as providers leaving the network (including the reason they are leaving the network). DVHA approves all new enrollments and disenrollment's from the provider network.
- On a bi-weekly basis, DVHA receives a report of the inventory of unprocessed provider enrollments and provider changes.
- DVHA requires 90-days' notice when a provider decides to leave the network. Upon such notice, DVHA works with the provider and affected members to ensure that members are aware of the change and have an opportunity to find a new provider.
- Annually, DVHA's provider network is subject to an External Quality Review Organization (EQRO) review. These reviews include timeliness and availability of services, travel distance standards, enrollment processes, and strategies for providing access to services in a culturally-competent way with regard for the preferred languages of Vermont Medicaid's members.

- DVHA works with the Vermont Dental Society, Vermont Association of Hospitals and Health Systems, Vermont Medical Society & Area Health Education Centers, and other groups to encourage the recruitment and retention of medical providers.
- The PMR unit and the provider call center routinely field calls from providers who have special issues to resolve. Prompt resolution of provider concerns has proven to be an effective tool for keeping providers enrolled and engaged with the Medicaid program.
- The Member Services call center assists with access issues by providing contact information for providers, including primary care providers who are accepting new patients.
- The Member Services call center logs complaints received from consumers, including access issues. These complaints are reviewed on a quarterly basis by the PMR unit. A report summarizing these complaints is compiled each quarter, and any systemic issues are identified and addressed.

When evaluating the time and distance thresholds listed below, the following factors are taken into account:

- The general demographic makeup of the State of Vermont, including rural versus urban communities.
- Changes (or anticipated changes) in covered members caused by changes in state population, changes in eligibility rules and/or any other changes that could have a significant impact on the total number of members served by the network.
- The characteristics and specific healthcare needs of the population of members served by this network.
- Some members may voluntarily choose to travel to a more distant provider. This practice does not necessarily indicate that the network is inadequate.

For the purpose of this Access to Care Plan, the following definitions apply:

- ***Emergency care*** is care for a medical problem that could result in serious health problems if it is not treated immediately.
- ***Urgent care*** is care for any problem that might endanger a member's health if it is not treated within 24 hours.
- ***Preventative Care*** is defined as ongoing care designed to evaluate and maintain a member's overall health, rather than treating a specific medical problem.
- ***Primary care*** includes gynecologists, Federally Qualified Health Centers and Rural Health Centers, as well as specialty care providers who might also serve as a member's primary care provider.
- When the term ***medical problem*** is used in this document, the term is meant to include physical, mental and behavioral health problems.

## Access to Care

### Emergency Care

Vermont Medicaid's network includes 15 hospital emergency departments which are open and available 24 hours per day, 7 days per week and every day of the year. This network includes two verified level One Trauma Centers. These emergency departments are geographically spread across population centers in our state in such a manner as to ensure that a member will generally not have to travel more than 30 miles to reach an emergency department. A statewide network of enrolled ambulance services is available to provide emergency transportation when necessary.

Vermont Medicaid also maintains a process through which payments can be made to non-enrolled providers when medically necessary, covered services cannot be provided within the existing network or when a member must seek emergency services (and post-emergency stabilization services) outside the network.

### Primary Care

#### Urgent Care:

When a member requests an appointment for urgent care, that member should generally be seen at a primary care provider's (PCP) office within 24 hours.

Travel distance for a member to access urgent care from a PCP shall generally not exceed 30 miles.

#### Care for Non-Urgent Medical Problems:

When a member requests an appointment for a minor medical problem, that member should generally be seen at a primary care provider's (PCP) office within 14 days.

Travel distance for a member to access care for a minor medical problem from a PCP shall generally not exceed 30 miles.

#### Preventative Care:

When a member requests an appointment for preventative care, that member should generally be seen at a primary care provider's (PCP) office within 90 days.

Travel distance for a member to access preventative care from a PCP shall generally not exceed 30 miles.

### Specialty Care

Specialty care includes the following specialties:

- Cardiology
- Urology
- Behavioral health specialists
- Mental health specialists

- Substance abuse specialists
- Obstetrics
- Home health services

### **Urgent Care:**

When a member requests an appointment for urgent specialty care, that member should generally be seen at a specialist's office within 24 hours.

Travel distance for a member to access urgent care from a specialist should generally not exceed 60 miles.

### **Care for Non-Urgent Medical Problems:**

When a member requests an appointment for a minor medical problem, that member should generally be seen at a specialist's office within 14 days-

Travel distance for a member to access care for a minor medical problem from a specialist should generally not exceed 60 miles.

### **Preventative Care:**

When a member requests an appointment for preventative care, that member should generally be seen at a specialist's office within 90 days.

Travel distance for a member to access preventative care from a specialist should generally not exceed 60 miles.

### **Hospital Care**

All of Vermont's hospitals (including Dartmouth Hitchcock in New Hampshire) participate in Vermont Medicaid. Hospitals are located throughout the state such that a hospital may generally be accessed with not more than a 30-minute trip from any location in the state.

### **Pharmacy, Laboratory, Dental, Ophthalmology/Optometry and Advanced Imaging services**

These providers/facilities should be located so that members do not generally need to travel more than 60 miles to access their services

### **Home Health**

Vermont Medicaid's network includes 26 Home Health Agencies, and their service areas cover the entire state of Vermont without any gaps in coverage. Home Health Agencies deliver services in the member's home, everywhere in the State. Network monitoring activities for this provider type focus on statewide coverage rather than the typical distance standards used for other provider types.

## Statewide Summary of Access

Vermont Medicaid Recipients -- travel time (minutes)  
and distance (miles) from home to specified services, 2015

|   | <u>Average (mean)</u> |          | <u>Median</u> |          | <u>Distribution</u> |                     | Recipients |
|---|-----------------------|----------|---------------|----------|---------------------|---------------------|------------|
|   | Time                  | Distance | Time          | Distance | % under<br>30 min   | % under<br>30 miles |            |
| Primary Care                                      | 25.9                  | 18       | 17.9          | 10       | 68%                 | 82%                 | 156,543    |
| Pediatric   | 22.7                  | 15       | 15.3          | 9        | 72%                 | 86%                 | 52,631     |
|   |                       |          |               |          |                     |                     |            |
|   | <u>Average (mean)</u> |          | <u>Median</u> |          | <u>Distribution</u> |                     | Recipients |
|   | Time                  | Distance | Time          | Distance | % under<br>60 min   | % under<br>60 miles |            |
| Specialty Care                                    |                       |          |               |          |                     |                     |            |
| Cardiology  | 41.2                  | 31       | 32.8          | 23       | 73%                 | 83%                 | 18,677     |
| Urology   | 35.6                  | 26       | 27.9          | 18       | 78%                 | 88%                 | 4,375      |
| Behavioral, Mental<br>Health & Substance<br>Abuse | 27.0                  | 19       | 16.4          | 9        | 85%                 | 93%                 | 47,163     |
| Obstetrics  | 29.9                  | 20       | 21.5          | 13       | 86%                 | 93%                 | 22,372     |
| Dental  | 24.1                  | 15       | 17.7          | 10       | 91%                 | 97%                 | 74,103     |
| Ophthalmology,<br>Optometry                       | 33.2                  | 23       | 23.5          | 15       | 81%                 | 91%                 | 32,938     |
| Advanced Imaging                                  | 28.1                  | 19       | 20.2          | 12       | 86%                 | 93%                 | 151,716    |
| Pharmacy  | 14.8                  | 9        | 7.8           | 4        | 96%                 | 98%                 | 136,671    |

## Travel Distance and Travel Time Methods

Travel distance and travel time between Medicaid recipients' homes and their medical, dental and pharmacy providers is estimated by the following process:

1. Select relevant claims based on a provider's specialty;
2. Choose valid location data; and
3. Assign a travel route between representative origin and destination points.

All Vermont Medicaid claims with service provided during calendar year 2015 were available for the analysis. Claims for specific analyses were selected by provider specialty, and address information for recipient and attending provider were obtained with each query. These addresses were abridged down to the postal code represented by a single point inside a town. This "address point" approach based on zip code reduces the spatial analysis from 100,000s of addresses down to 300 zip codes and a few thousand provider locations. See the map of Vermont's residential Zip Codes in Appendix C.

A claim can be thought of as a one-way trip, and the summary statistics for each county then is based on the all the claims, or trips, made during the year by the county or state's residents<sup>1</sup>. The spatial analysis was conducted using Geographic Information Systems ArcGIS 10.4 with the goal of connecting the origin points to the destination points along the highway network. The ArcGIS Network Analyst tool was used to find the 'least cost' route based on roadway time for each origin-destination pair. Any address with an invalid zip code was eliminated from the analysis unless location could otherwise be determined.

Both average (mean) and median statistics are present for each county's travel time and distance in Appendix B. The mean is often skewed as several long trips to reach a far-away hospital mathematically nudges the mean upward. These travel distributions are generally clustered around the low end and tail off with some very long trips. The median—the middle value in rank—is a good alternate measure of central tendency.

ArcGIS Network Analyst is able to use a complex road network data layer, which accounts for intersections, roadway curvature and posted speed limits. Travel time and distance estimates are realistically represented<sup>2</sup>. ArcGIS Network Analyst uses this same representation to determine the maximum spatial distance from each of Vermont's hospitals where one can still be able to reach the facility within 30 or 40 minutes. In the map of Hospital Travel Times, the white areas indicate it may be very difficult to reach a Vermont hospital or nearby non-Vermont hospital in under 40 minutes.

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<sup>1</sup> Unlike medical and dental, only the most recent trip to a particular pharmacy is counted.

<sup>2</sup> There are several limitations to this method. First, not all trips for medical care or pharmacy originate from a patient's home location, though this is always assumed to be the case. Second, the "address point" or postal centroid is made to represent an entire area served by that post office, introducing some error for nearly all locations. Third, trips whose origin and destination are the same cannot be assigned to the network, and are assigned zero (0) distance and time.

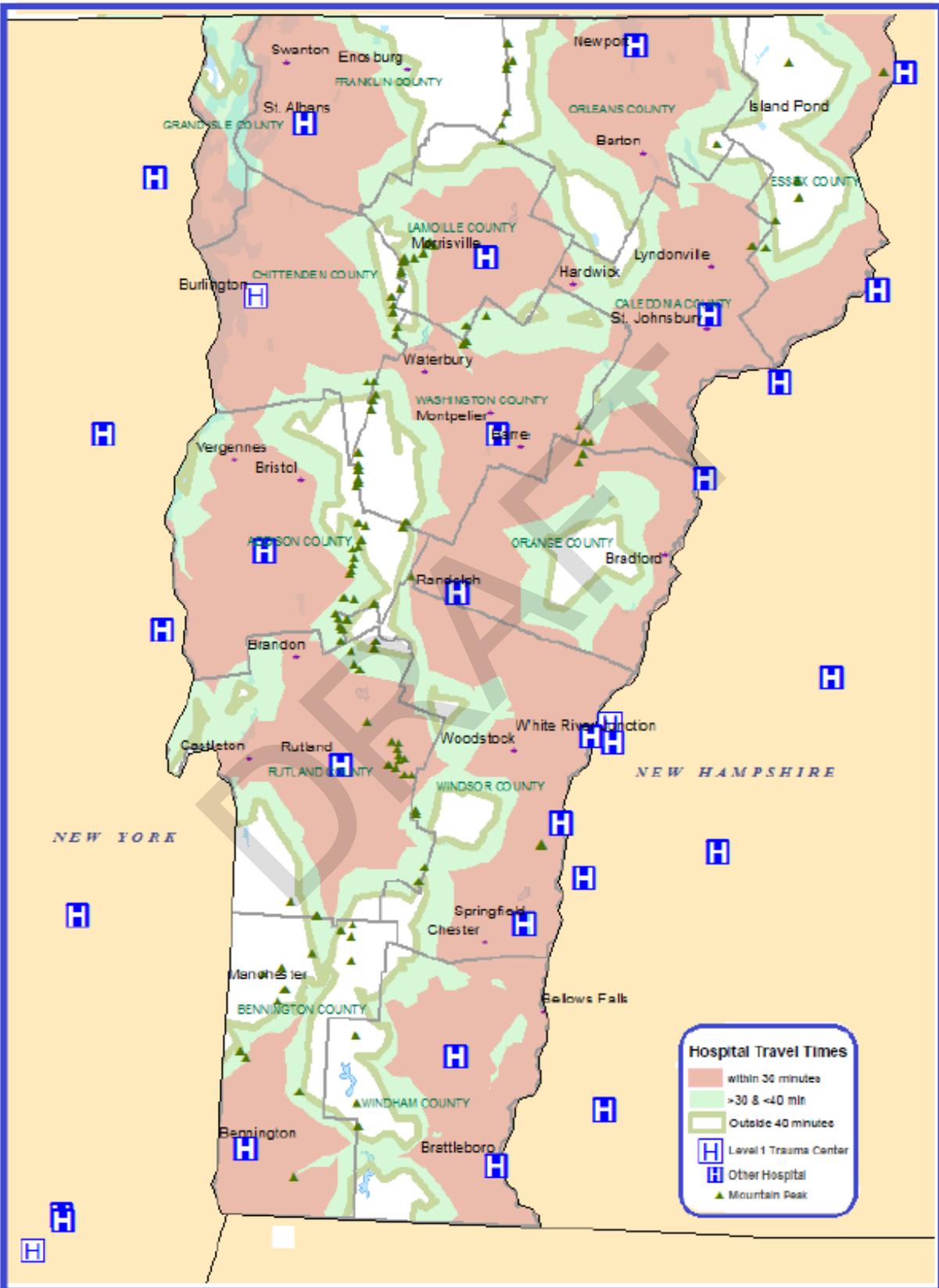
## Access Review

The Department of Vermont Health Access (DVHA) has reviewed the data gathered for this report and finds that the average level of access to the specific types of services in this report are adequate given the characteristics of the State of Vermont. Vermont is a rural, mountainous state where it is not uncommon that residents of certain communities must travel longer distances for things like work, school, groceries, and as evidenced in this report, medical care. In the breakdown by county in Appendix B, there are some counties where the average mileage one would have to travel to certain services is above the thresholds outlined in the report above. This is an expected result given the rural and mountainous geography of the counties in question. However, on a statewide basis, all services identified in this report can, on average, be accessed within the identified mileage threshold, with the exception of cardiology services, which on average is accessible within 31 miles. DVHA does not find this additional mile above the threshold to be significant to the point where corrective action is warranted, particularly because access to cardiology services is driven by primarily by one's proximity to hospitals in the Vermont Medicaid network. Every effort is made to enroll all licensed cardiologists in the State.

Access to hospital services is determined to be adequate in that hospitals are accessible by a 30-minute drive for the majority of Vermont, which is shown in the hospital map in Appendix A. The areas shaded in green and white, where travel is longer than 30 minutes, is expected due to how rural those areas of the state are. As can be seen in the map, these white areas are primarily where there are mountain peaks as well as state and national parks.

Access to home health services is also determined in a manner that is different than primary or other specialty care categories since Home Health Agencies deliver services in the member's home throughout the State of Vermont. It is therefore expected that Medicaid members are received the care they need from the Home Health Agency in their region. Systemic access issues for home health services are determined by complaints receive from members. No systemic issues have been identified at this time.

## Appendix A – Hospital Access



## Appendix B - Access by County

### CY 2015 Medicaid Recipients -- travel time (minutes) for PRIMARY CARE services

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 28.8   | 26.9   | 7,842      | 5%     |
| BENNINGTON          | 22.1   | 10.8   | 10,981     | 7%     |
| CALEDONIA           | 30.9   | 20.5   | 9,262      | 6%     |
| CHITTENDEN          | 14.9   | 10.1   | 31,319     | 20%    |
| ESSEX               | 44.6   | 32.4   | 2,159      | 1%     |
| FRANKLIN            | 30.6   | 24.9   | 12,296     | 8%     |
| GRAND ISLE          | 43.4   | 32.6   | 1,756      | 1%     |
| LAMOILLE            | 30.8   | 21.5   | 6,725      | 4%     |
| ORANGE              | 32.3   | 29.7   | 7,028      | 4%     |
| ORLEANS             | 33.8   | 21.4   | 9,596      | 6%     |
| RUTLAND             | 30.1   | 19.6   | 17,465     | 11%    |
| WASHINGTON          | 22.0   | 14.9   | 13,930     | 9%     |
| WINDHAM             | 26.7   | 20.2   | 12,738     | 8%     |
| WINDSOR             | 26.9   | 22.1   | 13,446     | 9%     |
| Statewide           | 25.9   | 17.9   | 156,543    | 100%   |

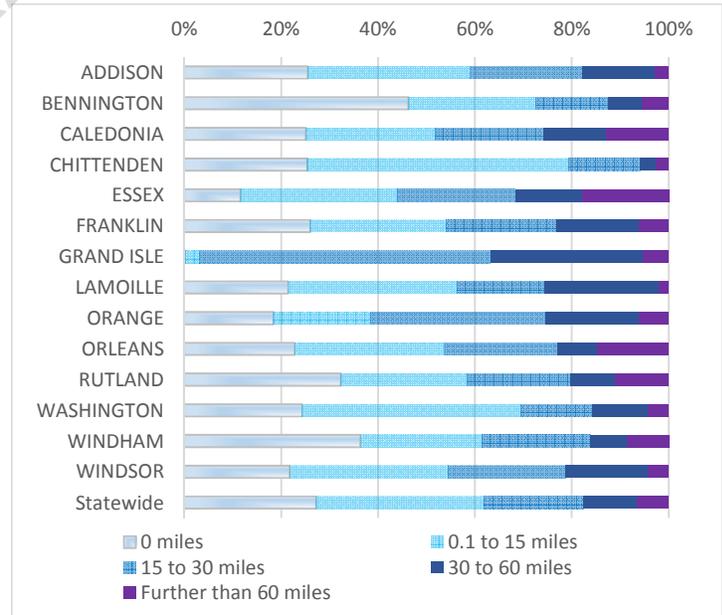
### Primary Care Travel distribution (Time)



### CY 2015 Medicaid Recipients -- distance (miles) for PRIMARY CARE services

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 17.3  | 13.9   | 7,842      | 5%     |
| BENNINGTON          | 14.3  | 5.4    | 10,981     | 7%     |
| CALEDONIA           | 23.6  | 13.0   | 9,262      | 6%     |
| CHITTENDEN          | 10.1  | 5.1    | 31,319     | 20%    |
| ESSEX               | 32.0  | 20.4   | 2,159      | 1%     |
| FRANKLIN            | 20.8  | 13.1   | 12,296     | 8%     |
| GRAND ISLE          | 31.7  | 25.1   | 1,756      | 1%     |
| LAMOILLE            | 18.8  | 10.7   | 6,725      | 4%     |
| ORANGE              | 22.4  | 16.7   | 7,028      | 4%     |
| ORLEANS             | 25.4  | 14.9   | 9,596      | 6%     |
| RUTLAND             | 18.8  | 9.3    | 17,465     | 11%    |
| WASHINGTON          | 15.6  | 8.6    | 13,930     | 9%     |
| WINDHAM             | 19.0  | 10.3   | 12,738     | 8%     |
| WINDSOR             | 19.0  | 14.1   | 13,446     | 9%     |
| Statewide           | 17.7  | 9.6    | 156,543    | 100%   |

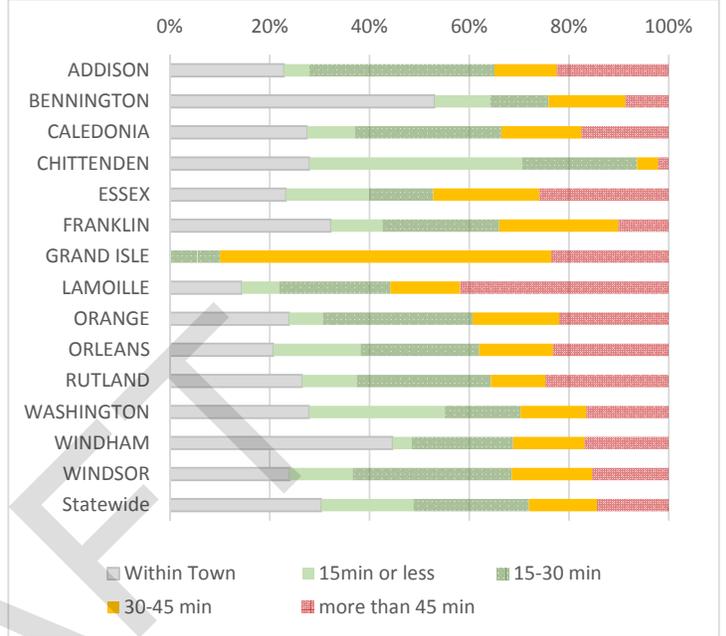
### Primary Care Travel distribution (Distance)



**CY 2015 Medicaid Recipients -- travel time (minutes) for PEDIATRIC medical services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 28.3   | 26.5   | 2,682      | 5%     |
| BENNINGTON          | 17.2   | 0.0    | 4,182      | 8%     |
| CALEDONIA           | 25.5   | 17.9   | 3,411      | 6%     |
| CHITTENDEN          | 12.2   | 9.1    | 10,787     | 20%    |
| ESSEX               | 35.5   | 25.8   | 782        | 1%     |
| FRANKLIN            | 23.1   | 20.3   | 4,885      | 9%     |
| GRAND ISLE          | 39.8   | 32.6   | 613        | 1%     |
| LAMOILLE            | 38.3   | 36.3   | 1,315      | 2%     |
| ORANGE              | 26.8   | 22.6   | 2,805      | 5%     |
| ORLEANS             | 34.9   | 22.2   | 3,256      | 6%     |
| RUTLAND             | 32.2   | 21.6   | 5,370      | 10%    |
| WASHINGTON          | 21.2   | 12.1   | 3,820      | 7%     |
| WINDHAM             | 22.5   | 17.2   | 3,952      | 8%     |
| WINDSOR             | 24.0   | 20.9   | 4,771      | 9%     |
| Statewide           | 22.7   | 15.3   | 52,631     | 100%   |

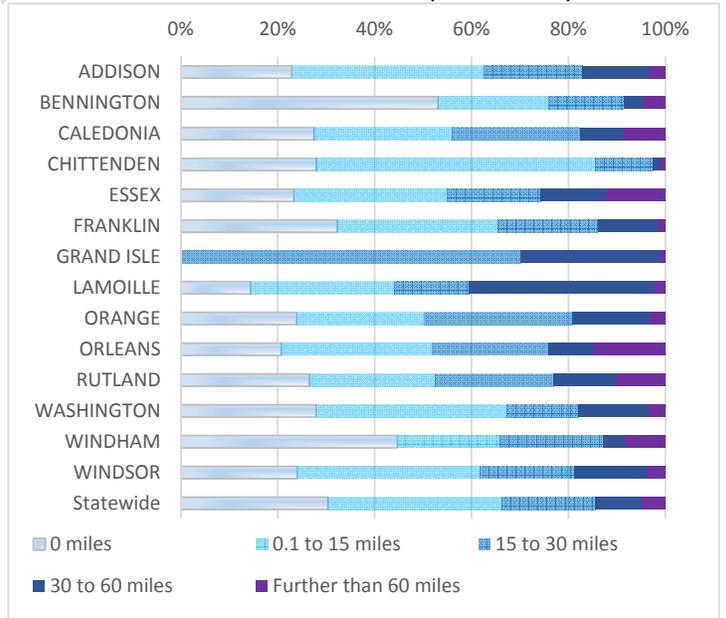
**Pediatric Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for PEDIATRIC medical services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 16.9  | 12.0   | 2,682      | 5%     |
| BENNINGTON          | 11.4  | 0.0    | 4,182      | 8%     |
| CALEDONIA           | 19.6  | 12.6   | 3,411      | 6%     |
| CHITTENDEN          | 7.7   | 4.4    | 10,787     | 20%    |
| ESSEX               | 24.8  | 14.0   | 782        | 1%     |
| FRANKLIN            | 15.5  | 12.3   | 4,885      | 9%     |
| GRAND ISLE          | 28.8  | 25.1   | 613        | 1%     |
| LAMOILLE            | 24.5  | 20.2   | 1,315      | 2%     |
| ORANGE              | 17.9  | 14.6   | 2,805      | 5%     |
| ORLEANS             | 26.0  | 14.9   | 3,256      | 6%     |
| RUTLAND             | 20.1  | 12.3   | 5,370      | 10%    |
| WASHINGTON          | 15.5  | 7.3    | 3,820      | 7%     |
| WINDHAM             | 15.8  | 9.3    | 3,952      | 8%     |
| WINDSOR             | 17.1  | 11.0   | 4,771      | 9%     |
| Statewide           | 15.3  | 8.7    | 52,631     | 100%   |

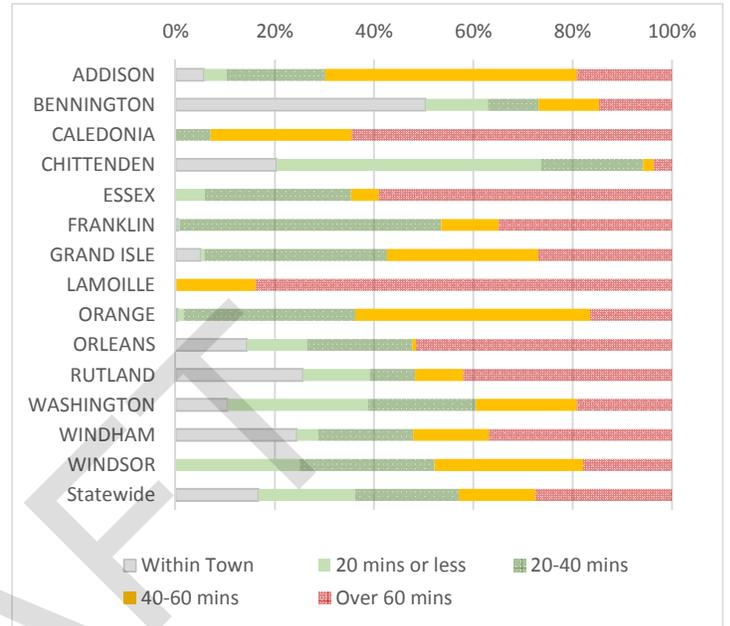
**Pediatric Travel distribution (Distance)**



**CY 2015 Medicaid Recipients -- travel time (minutes) for CARDIOLOGY services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 47.5   | 47.9   | 838        | 4%     |
| BENNINGTON          | 29.3   | 0.0    | 1,720      | 9%     |
| CALEDONIA           | 68.9   | 63.0   | 812        | 4%     |
| CHITTENDEN          | 16.0   | 10.1   | 3,899      | 21%    |
| ESSEX               | 75.3   | 69.6   | 202        | 1%     |
| FRANKLIN            | 56.0   | 36.9   | 1,567      | 8%     |
| GRAND ISLE          | 55.1   | 44.5   | 250        | 1%     |
| LAMOILLE            | 70.8   | 66.5   | 582        | 3%     |
| ORANGE              | 46.7   | 49.2   | 784        | 4%     |
| ORLEANS             | 62.5   | 77.1   | 764        | 4%     |
| RUTLAND             | 48.9   | 40.3   | 2,779      | 15%    |
| WASHINGTON          | 35.0   | 32.1   | 1,616      | 9%     |
| WINDHAM             | 45.7   | 48.3   | 1,427      | 8%     |
| WINDSOR             | 39.8   | 38.6   | 1,437      | 8%     |
| Statewide           | 41.2   | 32.8   | 18,677     | 100%   |

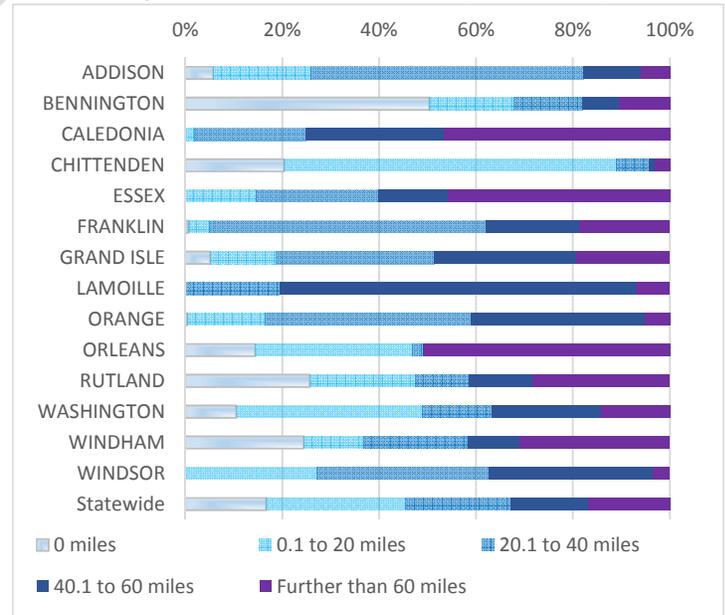
**Cardiology Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for CARDIOLOGY services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 30.4  | 27.3   | 838        | 4%     |
| BENNINGTON          | 20.7  | 0.0    | 1,720      | 9%     |
| CALEDONIA           | 57.9  | 59.5   | 812        | 4%     |
| CHITTENDEN          | 11.4  | 7.1    | 3,899      | 21%    |
| ESSEX               | 58.5  | 54.0   | 202        | 1%     |
| FRANKLIN            | 43.5  | 37.2   | 1,567      | 8%     |
| GRAND ISLE          | 44.0  | 33.3   | 250        | 1%     |
| LAMOILLE            | 49.0  | 45.7   | 582        | 3%     |
| ORANGE              | 35.9  | 34.2   | 784        | 4%     |
| ORLEANS             | 53.8  | 62.0   | 764        | 4%     |
| RUTLAND             | 32.1  | 22.3   | 2,779      | 15%    |
| WASHINGTON          | 29.0  | 25.7   | 1,616      | 9%     |
| WINDHAM             | 36.6  | 27.7   | 1,427      | 8%     |
| WINDSOR             | 31.2  | 28.7   | 1,437      | 8%     |
| Statewide           | 30.8  | 22.8   | 18,677     | 100%   |

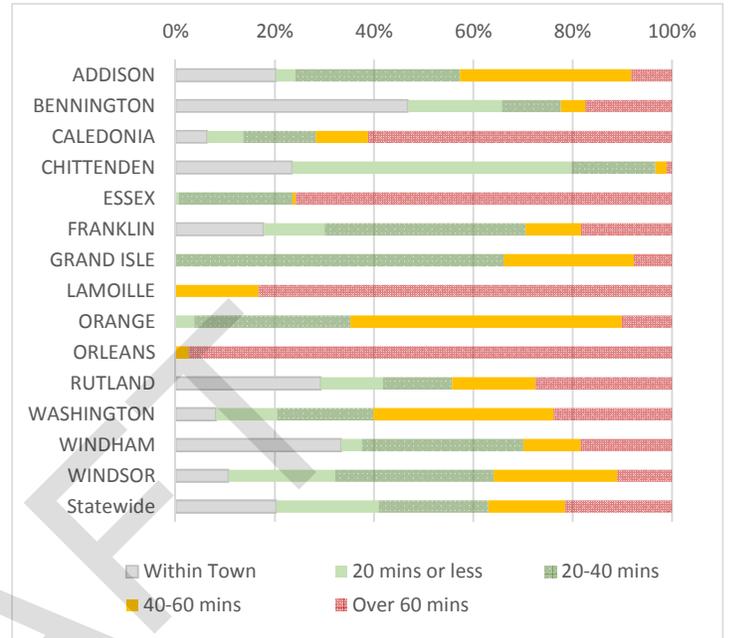
**Cardiology Travel distribution (Distance)**



**CY 2015 Medicaid Recipients -- travel time (minutes) for UROLOGY services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 33.0   | 36.5   | 222        | 5%     |
| BENNINGTON          | 29.2   | 10.8   | 419        | 10%    |
| CALEDONIA           | 61.8   | 60.8   | 205        | 5%     |
| CHITTENDEN          | 12.8   | 10.1   | 838        | 19%    |
| ESSEX               | 87.0   | 104.4  | 48         | 1%     |
| FRANKLIN            | 34.6   | 31.2   | 364        | 8%     |
| GRAND ISLE          | 40.7   | 32.6   | 40         | 1%     |
| LAMOILLE            | 69.0   | 70.7   | 154        | 4%     |
| ORANGE              | 45.3   | 41.8   | 214        | 5%     |
| ORLEANS             | 112.5  | 117.1  | 188        | 4%     |
| RUTLAND             | 37.6   | 28.1   | 620        | 14%    |
| WASHINGTON          | 44.4   | 49.3   | 331        | 8%     |
| WINDHAM             | 29.7   | 21.0   | 332        | 8%     |
| WINDSOR             | 33.2   | 27.8   | 400        | 9%     |
| Statewide           | 35.6   | 27.9   | 4,375      | 100%   |

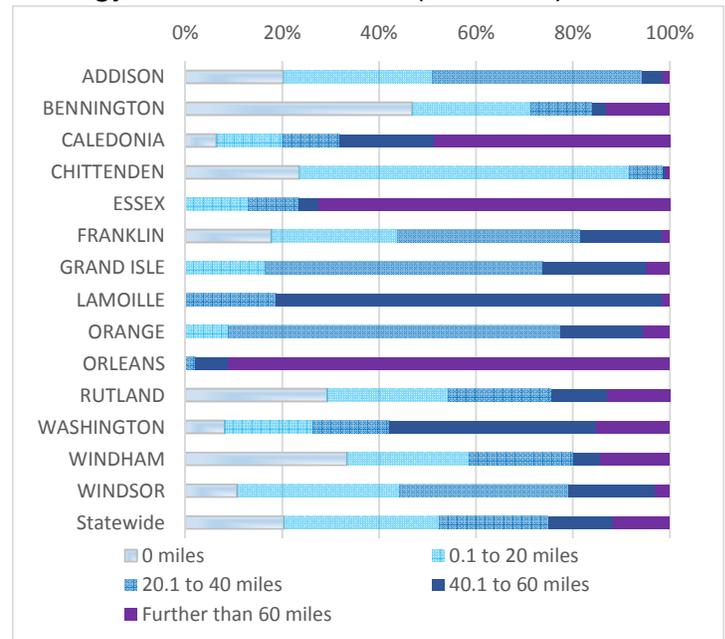
**Urology Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for UROLOGY services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 20.2  | 19.7   | 222        | 5%     |
| BENNINGTON          | 20.4  | 5.4    | 419        | 10%    |
| CALEDONIA           | 53.1  | 59.5   | 205        | 5%     |
| CHITTENDEN          | 8.6   | 5.7    | 838        | 19%    |
| ESSEX               | 64.7  | 68.0   | 48         | 1%     |
| FRANKLIN            | 25.4  | 24.9   | 364        | 8%     |
| GRAND ISLE          | 31.9  | 21.3   | 40         | 1%     |
| LAMOILLE            | 46.9  | 49.3   | 154        | 4%     |
| ORANGE              | 35.1  | 34.6   | 214        | 5%     |
| ORLEANS             | 82.2  | 75.4   | 188        | 4%     |
| RUTLAND             | 24.4  | 18.2   | 620        | 14%    |
| WASHINGTON          | 38.0  | 45.4   | 331        | 8%     |
| WINDHAM             | 22.5  | 14.3   | 332        | 8%     |
| WINDSOR             | 24.3  | 22.4   | 400        | 9%     |
| Statewide           | 25.9  | 18.2   | 4,375      | 100%   |

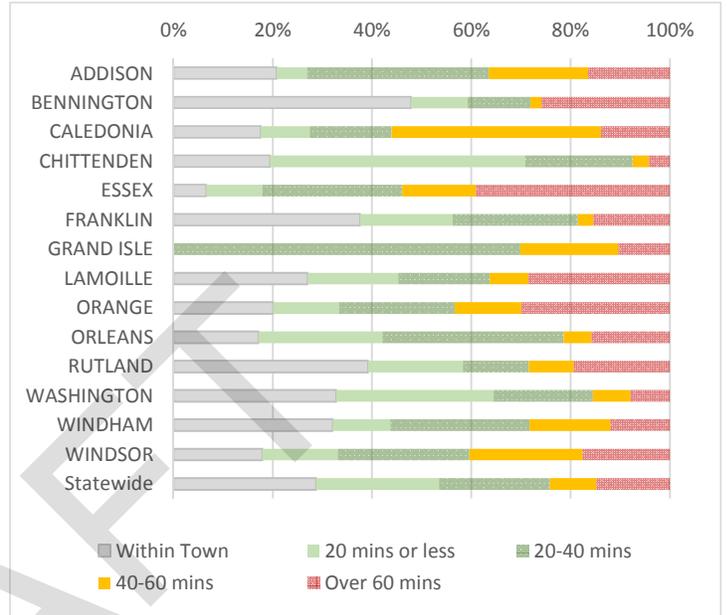
**Urology Travel distribution (Distance)**



**CY 2015 Medicaid Recipients -- travel time (minutes) for BEHAVIORAL, MENTAL HEALTH & SUBSTANCE ABUSE services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 36.4   | 26.9   | 1,883      | 4%     |
| BENNINGTON          | 28.3   | 10.8   | 3,228      | 7%     |
| CALEDONIA           | 38.6   | 40.3   | 2,603      | 6%     |
| CHITTENDEN          | 18.0   | 12.7   | 10,373     | 22%    |
| ESSEX               | 55.0   | 56.2   | 490        | 1%     |
| FRANKLIN            | 24.3   | 12.7   | 3,442      | 7%     |
| GRAND ISLE          | 42.9   | 32.6   | 454        | 1%     |
| LAMOILLE            | 33.1   | 21.5   | 1,932      | 4%     |
| ORANGE              | 39.9   | 34.7   | 2,099      | 4%     |
| ORLEANS             | 30.0   | 22.8   | 2,095      | 4%     |
| RUTLAND             | 29.8   | 13.6   | 5,027      | 11%    |
| WASHINGTON          | 20.8   | 12.1   | 4,846      | 10%    |
| WINDHAM             | 27.9   | 20.2   | 4,394      | 9%     |
| WINDSOR             | 34.6   | 32.9   | 4,297      | 9%     |
| Statewide           | 27.0   | 16.4   | 47,163     | 100%   |

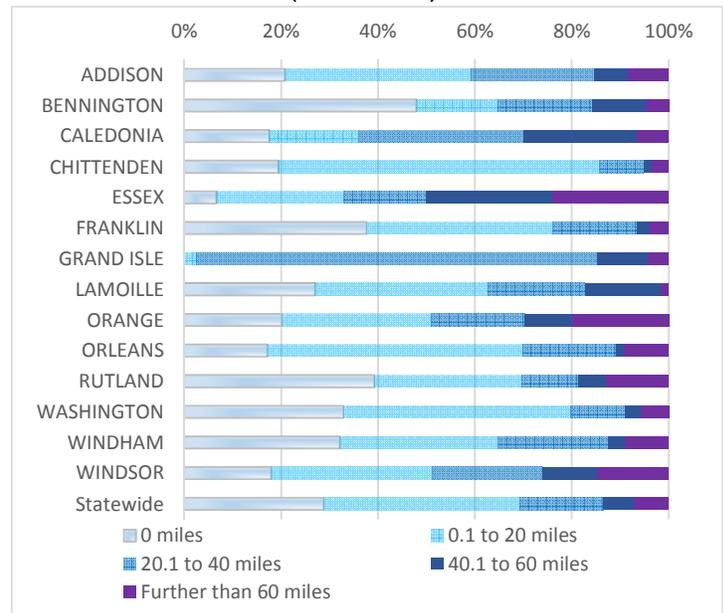
**Behavioral, Mental Health & Substance Abuse Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for BEHAVIORAL, MENTAL HEALTH & SUBSTANCE ABUSE services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 23.1  | 14.7   | 1,883      | 4%     |
| BENNINGTON          | 17.6  | 5.4    | 3,228      | 7%     |
| CALEDONIA           | 30.3  | 29.5   | 2,603      | 6%     |
| CHITTENDEN          | 12.8  | 7.7    | 10,373     | 22%    |
| ESSEX               | 41.4  | 41.9   | 490        | 1%     |
| FRANKLIN            | 15.4  | 8.8    | 3,442      | 7%     |
| GRAND ISLE          | 31.2  | 25.1   | 454        | 1%     |
| LAMOILLE            | 19.7  | 10.7   | 1,932      | 4%     |
| ORANGE              | 30.2  | 19.9   | 2,099      | 4%     |
| ORLEANS             | 20.6  | 15.7   | 2,095      | 4%     |
| RUTLAND             | 19.9  | 7.5    | 5,027      | 11%    |
| WASHINGTON          | 14.9  | 7.3    | 4,846      | 10%    |
| WINDHAM             | 22.2  | 14.3   | 4,394      | 9%     |
| WINDSOR             | 28.5  | 19.2   | 4,297      | 9%     |
| Statewide           | 18.9  | 8.8    | 47,163     | 100%   |

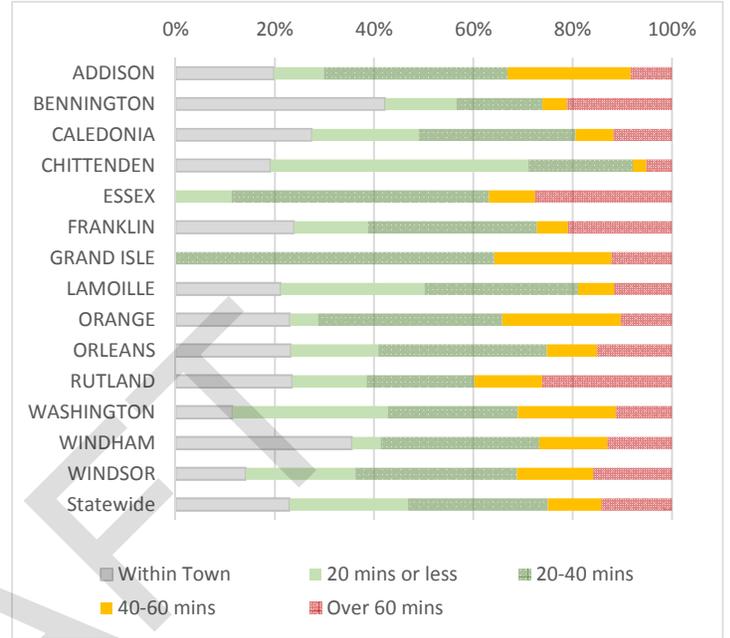
**Behavioral, Mental Health & Substance Abuse Travel distribution (Distance)**



**CY 2015 Medicaid Recipients -- travel time (minutes) for OBSTETRIC services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 31.0   | 26.9   | 1,319      | 6%     |
| BENNINGTON          | 42.0   | 14.5   | 1,614      | 7%     |
| CALEDONIA           | 26.8   | 20.5   | 1,273      | 6%     |
| CHITTENDEN          | 17.4   | 12.7   | 4,142      | 19%    |
| ESSEX               | 49.2   | 39.5   | 247        | 1%     |
| FRANKLIN            | 32.0   | 31.2   | 1,625      | 7%     |
| GRAND ISLE          | 41.1   | 32.6   | 206        | 1%     |
| LAMOILLE            | 25.3   | 18.0   | 1,423      | 6%     |
| ORANGE              | 31.8   | 30.5   | 1,034      | 5%     |
| ORLEANS             | 31.1   | 22.2   | 1,468      | 7%     |
| RUTLAND             | 38.5   | 27.1   | 2,866      | 13%    |
| WASHINGTON          | 31.1   | 25.0   | 1,823      | 8%     |
| WINDHAM             | 28.9   | 20.2   | 1,842      | 8%     |
| WINDSOR             | 33.0   | 27.8   | 1,490      | 7%     |
| Statewide           | 29.9   | 21.5   | 22,372     | 100%   |

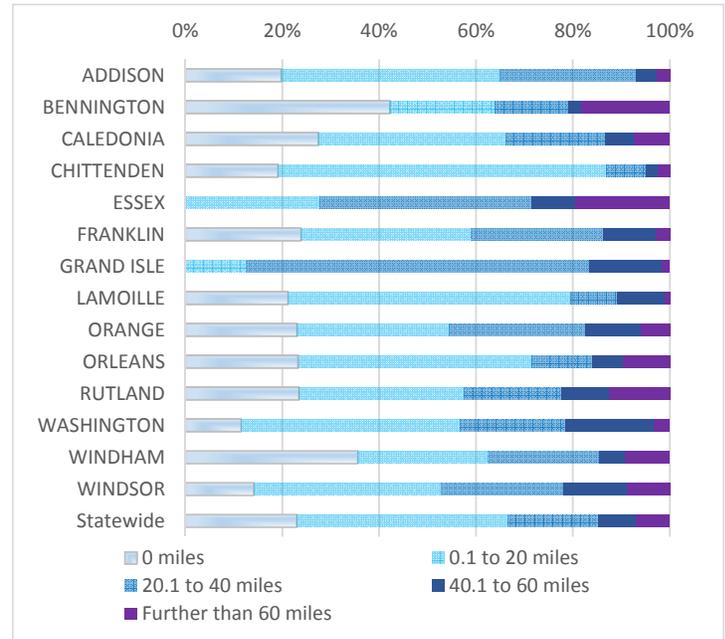
**Obstetrics Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for OBSTETRIC services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 18.5  | 14.7   | 1,319      | 6%     |
| BENNINGTON          | 29.0  | 7.9    | 1,614      | 7%     |
| CALEDONIA           | 19.8  | 14.7   | 1,273      | 6%     |
| CHITTENDEN          | 11.8  | 7.7    | 4,142      | 19%    |
| ESSEX               | 34.7  | 23.3   | 247        | 1%     |
| FRANKLIN            | 21.4  | 19.7   | 1,625      | 7%     |
| GRAND ISLE          | 29.4  | 22.4   | 206        | 1%     |
| LAMOILLE            | 15.0  | 9.3    | 1,423      | 6%     |
| ORANGE              | 22.3  | 16.1   | 1,034      | 5%     |
| ORLEANS             | 21.8  | 13.7   | 1,468      | 7%     |
| RUTLAND             | 24.0  | 17.0   | 2,866      | 13%    |
| WASHINGTON          | 22.2  | 13.6   | 1,823      | 8%     |
| WINDHAM             | 21.0  | 14.3   | 1,842      | 8%     |
| WINDSOR             | 25.1  | 19.2   | 1,490      | 7%     |
| Statewide           | 20.3  | 12.6   | 22,372     | 100%   |

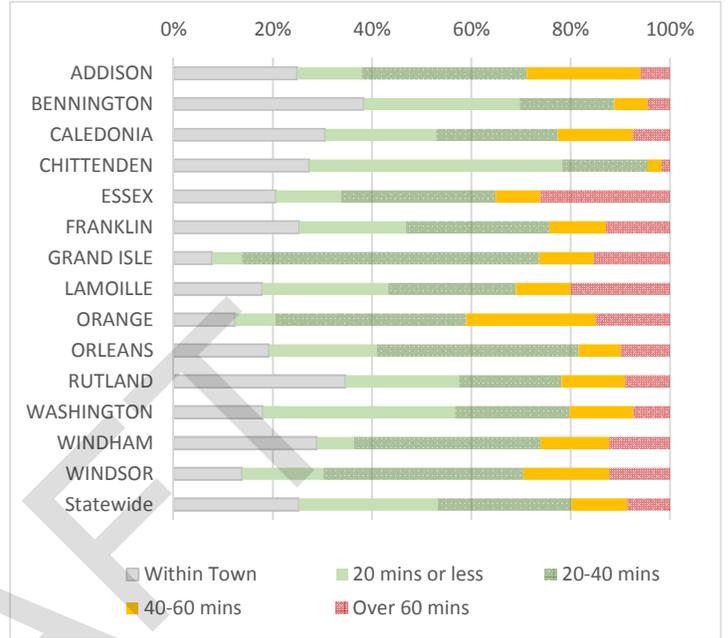
**Obstetrics Travel distribution (Distance)**



**CY 2015 Medicaid Recipients -- travel time (minutes) for DENTAL services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 27.4   | 26.9   | 4,008      | 5%     |
| BENNINGTON          | 17.8   | 14.0   | 4,908      | 7%     |
| CALEDONIA           | 25.6   | 17.9   | 4,976      | 7%     |
| CHITTENDEN          | 13.4   | 9.7    | 15,607     | 21%    |
| ESSEX               | 37.9   | 30.2   | 1,082      | 1%     |
| FRANKLIN            | 27.2   | 24.8   | 5,691      | 8%     |
| GRAND ISLE          | 34.6   | 27.4   | 866        | 1%     |
| LAMOILLE            | 31.3   | 21.5   | 3,587      | 5%     |
| ORANGE              | 37.3   | 34.9   | 3,129      | 4%     |
| ORLEANS             | 27.8   | 22.2   | 5,215      | 7%     |
| RUTLAND             | 23.1   | 18.9   | 8,190      | 11%    |
| WASHINGTON          | 24.7   | 15.3   | 6,797      | 9%     |
| WINDHAM             | 29.6   | 27.7   | 4,985      | 7%     |
| WINDSOR             | 31.1   | 26.7   | 5,062      | 7%     |
| Statewide           | 24.1   | 17.7   | 74,103     | 100%   |

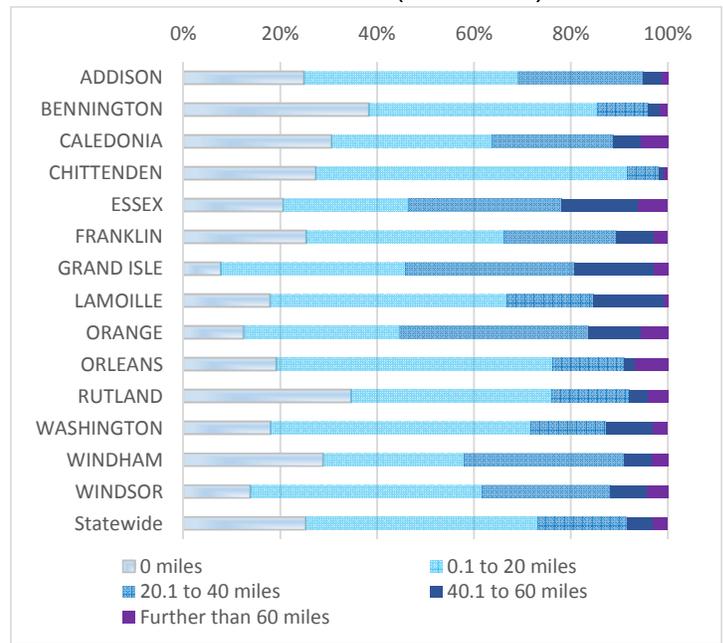
**Dental Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for DENTAL services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 15.8  | 14.7   | 4,008      | 5%     |
| BENNINGTON          | 10.5  | 7.3    | 4,908      | 7%     |
| CALEDONIA           | 18.4  | 12.6   | 4,976      | 7%     |
| CHITTENDEN          | 8.3   | 5.0    | 15,607     | 21%    |
| ESSEX               | 25.1  | 20.4   | 1,082      | 1%     |
| FRANKLIN            | 17.4  | 11.9   | 5,691      | 8%     |
| GRAND ISLE          | 25.2  | 20.1   | 866        | 1%     |
| LAMOILLE            | 18.5  | 10.7   | 3,587      | 5%     |
| ORANGE              | 25.2  | 21.9   | 3,129      | 4%     |
| ORLEANS             | 18.1  | 14.1   | 5,215      | 7%     |
| RUTLAND             | 13.8  | 9.1    | 8,190      | 11%    |
| WASHINGTON          | 17.2  | 10.4   | 6,797      | 9%     |
| WINDHAM             | 18.3  | 16.5   | 4,985      | 7%     |
| WINDSOR             | 21.2  | 16.8   | 5,062      | 7%     |
| Statewide           | 15.5  | 9.6    | 74,103     | 100%   |

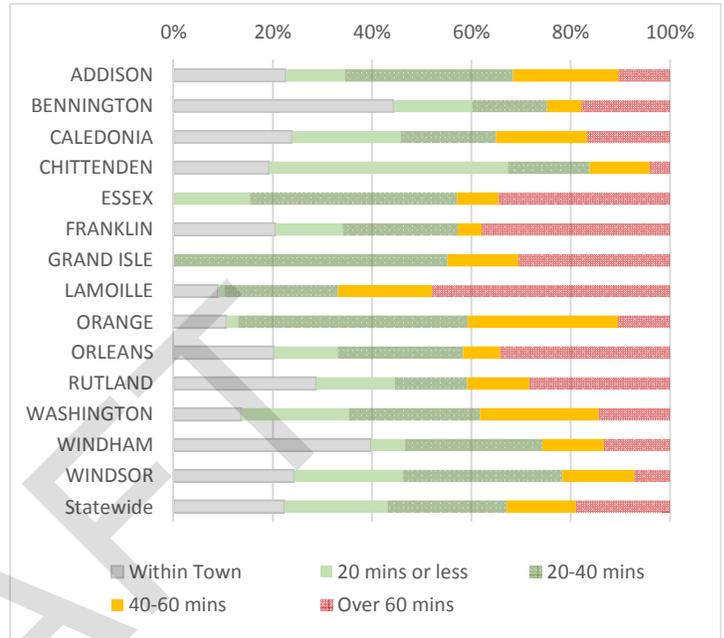
**Dental Travel distribution (Distance)**



**CY 2015 Medicaid Recipients: travel time (minutes) for OPHTHALMOLOGY - OPTOMETRY services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 30.4   | 26.9   | 1,593      | 5%     |
| BENNINGTON          | 30.0   | 13.8   | 1,955      | 6%     |
| CALEDONIA           | 32.7   | 26.7   | 2,342      | 7%     |
| CHITTENDEN          | 20.1   | 14.8   | 5,322      | 16%    |
| ESSEX               | 54.6   | 39.5   | 540        | 2%     |
| FRANKLIN            | 41.2   | 39.8   | 2,896      | 9%     |
| GRAND ISLE          | 53.8   | 34.2   | 360        | 1%     |
| LAMOILLE            | 55.3   | 57.5   | 1,442      | 4%     |
| ORANGE              | 36.2   | 34.3   | 1,618      | 5%     |
| ORLEANS             | 46.0   | 28.3   | 2,264      | 7%     |
| RUTLAND             | 39.3   | 27.1   | 3,780      | 11%    |
| WASHINGTON          | 33.6   | 34.5   | 2,929      | 9%     |
| WINDHAM             | 26.4   | 20.2   | 2,639      | 8%     |
| WINDSOR             | 24.6   | 20.9   | 3,258      | 10%    |
| Statewide           | 33.2   | 23.5   | 32,938     | 100%   |

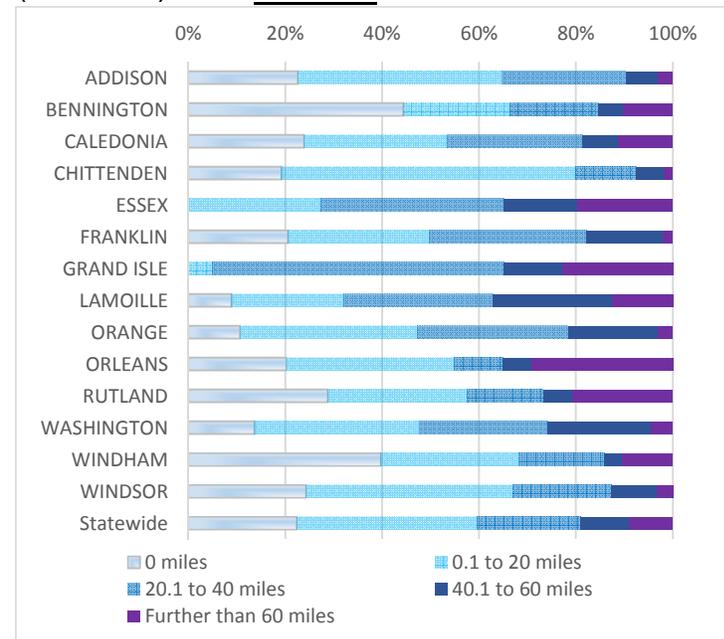
**Ophthalmology, Optometry Travel distribution (Time)**



**CY 2015 Medicaid Recipients: distance (miles) for OPHTHALMOLOGY - OPTOMETRY services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 18.3  | 14.7   | 1,593      | 5%     |
| BENNINGTON          | 20.4  | 7.1    | 1,955      | 6%     |
| CALEDONIA           | 24.4  | 18.7   | 2,342      | 7%     |
| CHITTENDEN          | 13.6  | 8.0    | 5,322      | 16%    |
| ESSEX               | 39.0  | 23.3   | 540        | 2%     |
| FRANKLIN            | 24.5  | 22.2   | 2,896      | 9%     |
| GRAND ISLE          | 38.9  | 26.3   | 360        | 1%     |
| LAMOILLE            | 35.2  | 37.1   | 1,442      | 4%     |
| ORANGE              | 25.5  | 21.1   | 1,618      | 5%     |
| ORLEANS             | 35.5  | 16.4   | 2,264      | 7%     |
| RUTLAND             | 25.7  | 17.0   | 3,780      | 11%    |
| WASHINGTON          | 25.7  | 23.4   | 2,929      | 9%     |
| WINDHAM             | 18.7  | 12.0   | 2,639      | 8%     |
| WINDSOR             | 17.8  | 12.0   | 3,258      | 10%    |
| Statewide           | 22.8  | 14.6   | 32,938     | 100%   |

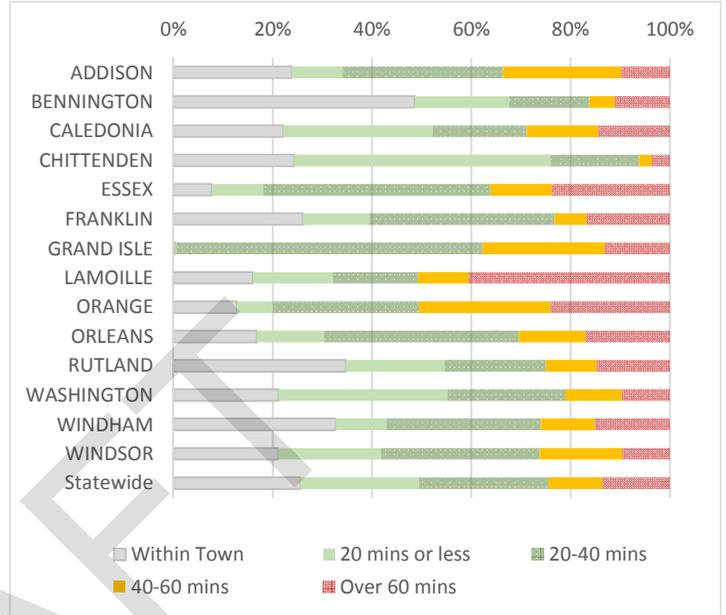
**Ophthalmology, Optometry Travel distribution (Distance)**



**CY 2015 Medicaid Recipients -- travel time (minutes) for  
ADVANCED IMAGING services**

| COUNTY of Residence | One way travel time to Attending Provider service location |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean   | Median | Recipients | %State |
| ADDISON             | 30.8   | 26.9   | 7,195      | 5%     |
| BENNINGTON          | 22.6   | 10.8   | 11,150     | 7%     |
| CALEDONIA           | 29.6   | 17.9   | 8,984      | 6%     |
| CHITTENDEN          | 15.2   | 10.1   | 28,740     | 19%    |
| ESSEX               | 46.9   | 33.9   | 2,130      | 1%     |
| FRANKLIN            | 30.6   | 25.1   | 12,289     | 8%     |
| GRAND ISLE          | 43.6   | 32.6   | 1,686      | 1%     |
| LAMOILLE            | 43.7   | 41.0   | 6,675      | 4%     |
| ORANGE              | 43.5   | 40.6   | 6,730      | 4%     |
| ORLEANS             | 37.7   | 28.3   | 9,580      | 6%     |
| RUTLAND             | 26.4   | 19.2   | 17,440     | 11%    |
| WASHINGTON          | 24.9   | 15.3   | 13,759     | 9%     |
| WINDHAM             | 28.9   | 20.2   | 12,394     | 8%     |
| WINDSOR             | 27.8   | 23.2   | 12,964     | 9%     |
| Statewide           | 28.1   | 20.2   | 151,716    | 100%   |

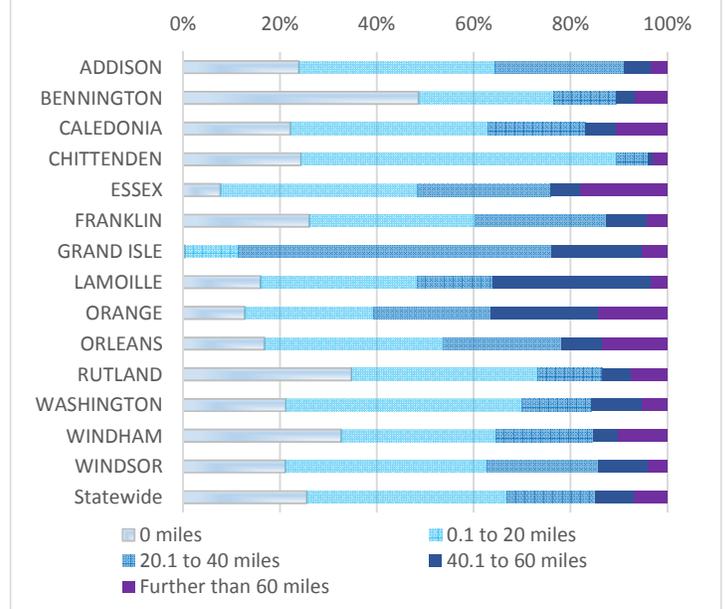
**Advanced Imaging Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for  
ADVANCED IMAGING services**

| COUNTY of Residence | Network (roadway) distance to Attending Provider service location |        |            |        |
|---------------------|---|--------|------------|--------|
|                     | Mean  | Median | Recipients | %State |
| ADDISON             | 18.8  | 14.7   | 7,195      | 5%     |
| BENNINGTON          | 15.1  | 5.4    | 11,150     | 7%     |
| CALEDONIA           | 22.4  | 12.6   | 8,984      | 6%     |
| CHITTENDEN          | 10.4  | 5.4    | 28,740     | 19%    |
| ESSEX               | 33.2  | 20.3   | 2,130      | 1%     |
| FRANKLIN            | 20.7  | 13.6   | 12,289     | 8%     |
| GRAND ISLE          | 32.0  | 25.1   | 1,686      | 1%     |
| LAMOILLE            | 27.5  | 22.7   | 6,675      | 4%     |
| ORANGE              | 32.1  | 28.5   | 6,730      | 4%     |
| ORLEANS             | 29.1  | 18.9   | 9,580      | 6%     |
| RUTLAND             | 16.3  | 9.1    | 17,440     | 11%    |
| WASHINGTON          | 18.1  | 9.9    | 13,759     | 9%     |
| WINDHAM             | 20.3  | 14.3   | 12,394     | 8%     |
| WINDSOR             | 19.5  | 14.5   | 12,964     | 9%     |
| Statewide           | 19.5  | 11.9   | 151,716    | 100%   |

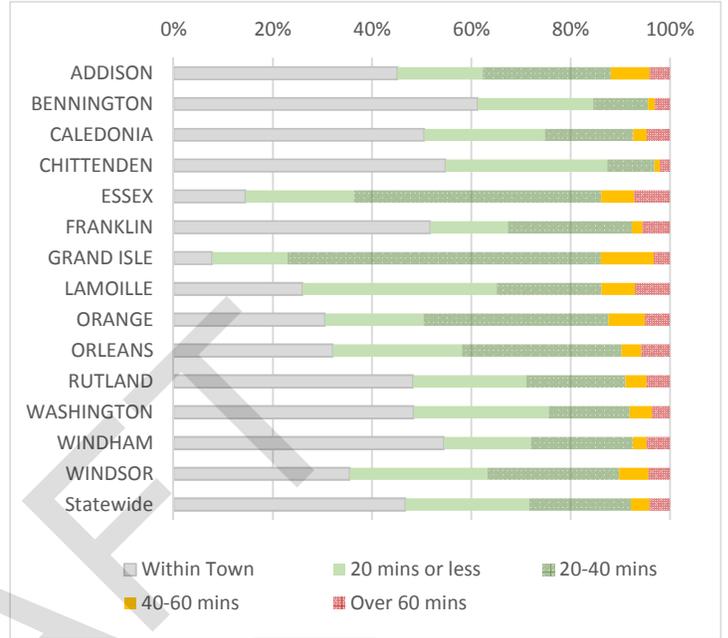
**Advanced Imaging Travel distribution (Distance)**



**CY 2015 Medicaid Recipients -- travel time (minutes) for PHARMACY**

| COUNTY of Residence | One way travel time to Pharmacy |        |            |        |
|---------------------|---------------------------------|--------|------------|--------|
|                     | Mean                            | Median | Recipients | %State |
| ADDISON             | 17.6                            | 12.3   | 6,907      | 5%     |
| BENNINGTON          | 10.6                            | 0.0    | 10,131     | 7%     |
| CALEDONIA           | 14.2                            | 0.0    | 7,913      | 6%     |
| CHITTENDEN          | 9.2                             | 0.0    | 26,278     | 19%    |
| ESSEX               | 29.3                            | 24.5   | 1,865      | 1%     |
| FRANKLIN            | 15.6                            | 0.0    | 11,010     | 8%     |
| GRAND ISLE          | 27.9                            | 30.7   | 1,544      | 1%     |
| LAMOILLE            | 20.2                            | 15.3   | 5,703      | 4%     |
| ORANGE              | 21.5                            | 18.7   | 6,117      | 4%     |
| ORLEANS             | 19.9                            | 13.2   | 8,257      | 6%     |
| RUTLAND             | 15.3                            | 3.8    | 16,054     | 12%    |
| WASHINGTON          | 13.5                            | 4.7    | 11,992     | 9%     |
| WINDHAM             | 14.3                            | 0.0    | 11,088     | 8%     |
| WINDSOR             | 16.7                            | 9.6    | 11,812     | 9%     |
| Statewide           | 14.8                            | 7.8    | 136,671    | 100%   |

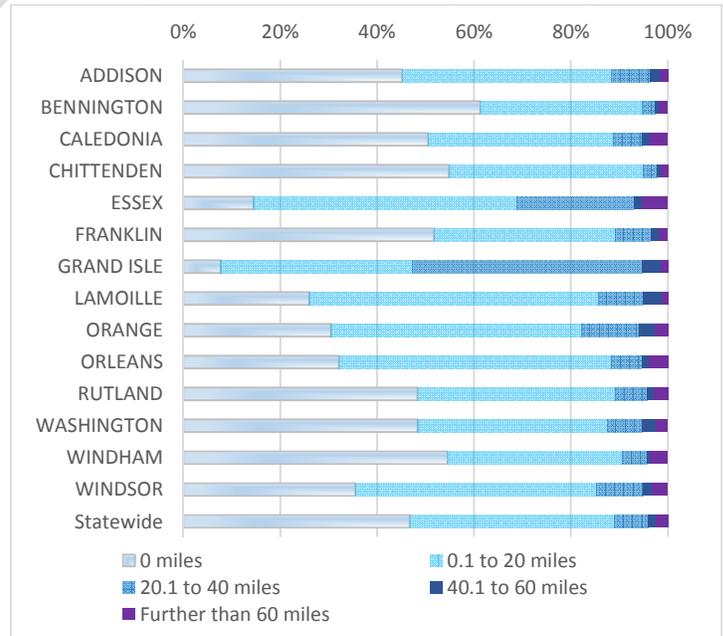
**Pharmacy Travel distribution (Time)**



**CY 2015 Medicaid Recipients -- distance (miles) for PHARMACY**

| COUNTY of Residence | Network (roadway) distance to Pharmacy |        |            |        |
|---------------------|--|--------|------------|--------|
|                     | Mean                                   | Median | Recipients | %State |
| ADDISON             | 10.2                                   | 7.5    | 6,907      | 5%     |
| BENNINGTON          | 6.4                                    | 0.0    | 10,131     | 7%     |
| CALEDONIA           | 9.9                                    | 0.0    | 7,913      | 6%     |
| CHITTENDEN          | 6.1                                    | 0.0    | 26,278     | 19%    |
| ESSEX               | 18.6                                   | 13.9   | 1,865      | 1%     |
| FRANKLIN            | 9.8                                    | 0.0    | 11,010     | 8%     |
| GRAND ISLE          | 19.2                                   | 21.3   | 1,544      | 1%     |
| LAMOILLE            | 11.6                                   | 8.3    | 5,703      | 4%     |
| ORANGE              | 13.2                                   | 9.1    | 6,117      | 4%     |
| ORLEANS             | 13.0                                   | 7.3    | 8,257      | 6%     |
| RUTLAND             | 9.0                                    | 1.7    | 16,054     | 12%    |
| WASHINGTON          | 9.3                                    | 2.3    | 11,992     | 9%     |
| WINDHAM             | 9.7                                    | 0.0    | 11,088     | 8%     |
| WINDSOR             | 11.2                                   | 5.4    | 11,812     | 9%     |
| Statewide           | 9.4                                    | 3.7    | 136,671    | 100%   |

**Pharmacy Travel distribution (Distance)**



# Appendix C - Vermont Residential Zip Codes

