

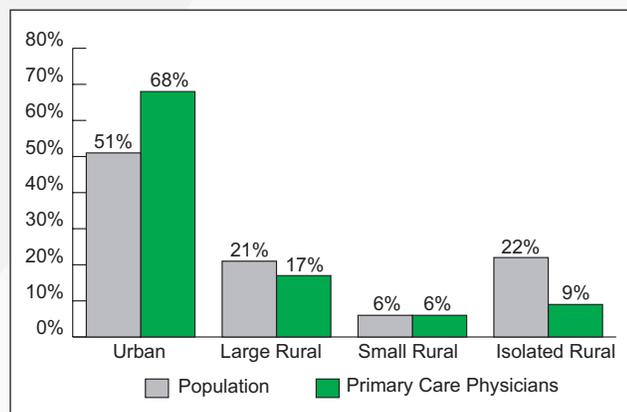
## Availability of Primary Care Physicians in North Dakota

Primary care physicians are defined as those practicing in family/general practice (FP), general internal medicine (GIM), and general pediatrics (Gen Ped).

In 2017, there were 604 active primary care physicians in North Dakota – 364 practicing in FP, 162 in GIM, and 78 in Gen Ped. Of these, 410 (68%) practiced in urban areas, 104 (17%) in large rural areas, 34 (6%) in small rural areas, and 56 (9%) in isolated rural areas. There were 194 primary care physicians in all rural areas combined, which represented 32% of all primary care physicians in North Dakota.

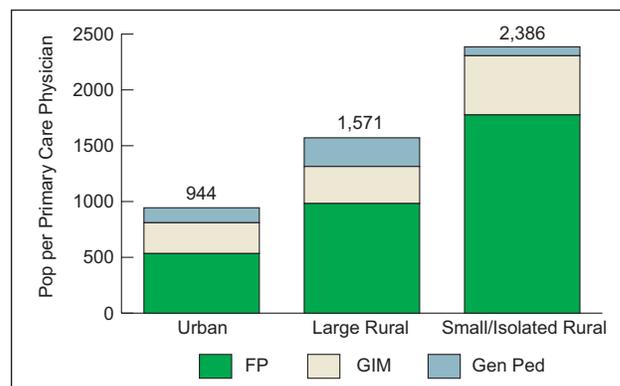
In general, urban areas are defined as those with a core city population of 50,000 or greater. Large rural areas have a population between 10,000 and 49,999; small rural areas are between 2,500 and 9,999, and isolated rural areas have populations less than 2,500.

**Figure 1. Comparison of Percentage of Primary Care Physicians to North Dakota Population by Rural/Urban Status**



- The greatest primary care physician disparity was in isolated rural areas, which had 22% of the population, but only 9% of the primary care physicians.
- More than two-thirds (68%) of North Dakota’s primary care physicians practiced in urban areas, where more than half (51%) of the population resided.
- Urban areas had the highest primary care physicians to population ratio (1.1 per 1,000). The ratio in large rural areas was 0.6, small rural was 0.7, and isolated rural was 0.3 per 1,000.

**Figure 2. Population Per Primary Care Physicians by Rural/Urban Status in North Dakota**



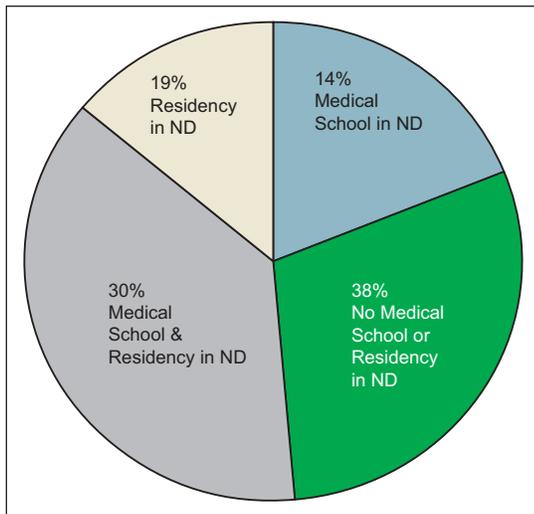
- There were more than twice as many patients per primary care physician in small/isolated rural areas compared to urban areas.
- The largest absolute difference was for small/isolated rural versus urban family practice physicians per population (1,442) (not shown in Figure 2).

**Table 1. Age and Sex of Primary Care Physicians in North Dakota by Rural/Urban Status**

Rural/Urban Status	All	Female		Male		Age
	N	N	%	N	%	Mean
Urban	410	161	39%	249	61%	48.6
Large Rural	104	37	36%	67	64%	51.0
Small Rural	34	13	38%	21	62%	53.2
Isolated Rural	56	19	34%	37	66%	55.0
<b>Total</b>	<b>604</b>	<b>230</b>	<b>38%</b>	<b>374</b>	<b>62%</b>	<b>49.8</b>

- Primary care physicians in large, small, and isolated rural areas were more likely to be male (64%, 62%, and 66%, respectively).
- Primary care physicians in small and isolated rural areas were older than their urban and large rural counterparts.

**Figure 3. Location of Medical School and Residency for Primary Care Physicians Currently Practicing in North Dakota**



- More than half (63%) of primary care physicians practicing in North Dakota either attended medical school, received residency training, or both in North Dakota. The comparable percentage for North Dakota's non-primary care physicians was 35%.
- Of the primary care physicians practicing in North Dakota, 44% went to medical school in North Dakota, and 49% completed at least one residency in the state.
- Nearly one-third (30%) of primary care physicians practicing in North Dakota obtained both their medical school degree and at least one residency training in North Dakota.

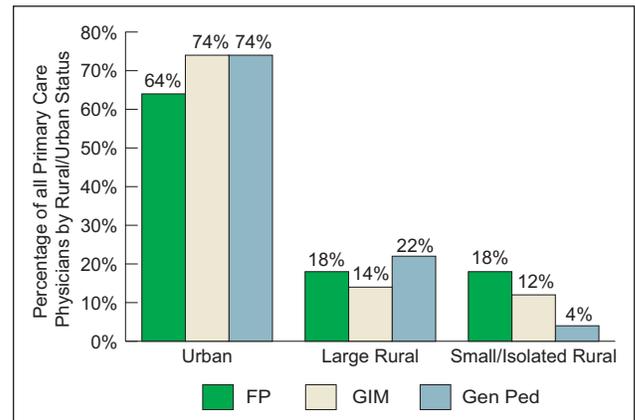
**Table 2. Specialty of Primary Care Physicians by Rural/Urban Status**

Rural/Urban Status	All	FP		GIM		Gen Ped	
	N	N	%	N	%	N	%
Urban	410	232	57%	120	29%	58	14%
Large Rural	104	65	63%	22	21%	17	16%
Small Rural	34	26	76%	7	21%	1	3%
Isolated Rural	56	41	73%	13	23%	2	4%
<b>All</b>	<b>604</b>	<b>364</b>	<b>60%</b>	<b>162</b>	<b>27%</b>	<b>78</b>	<b>13%</b>

- More than half of the primary care physicians practiced in family medicine (60%).
- Approximately 76% of the primary care physicians in small rural and 73% in isolated rural areas practiced family medicine.

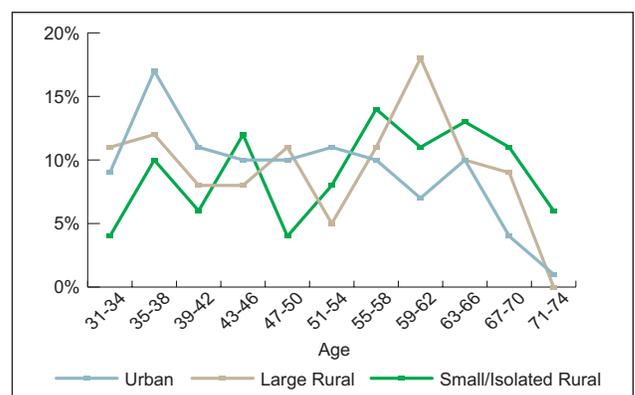
- Nearly one-third of the urban primary care physicians specialized in general internal medicine (29%).
- The percentage of general pediatric primary care physicians was at least three times as high in urban and large rural areas as in small/isolated rural areas.

**Figure 4. Percentage of Primary Care Physicians in North Dakota by Specialty and Rural/Urban Status**



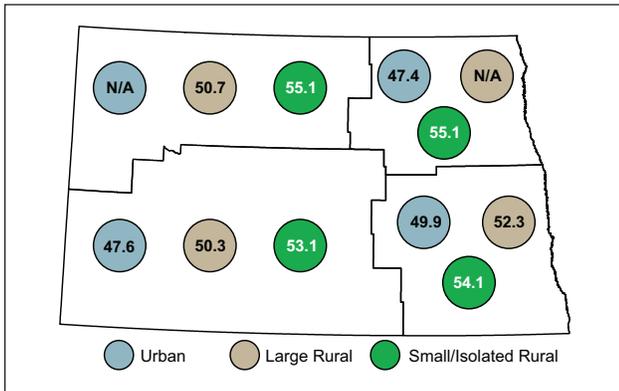
- General internal medicine and general pediatric primary care physicians were more likely to practice in urban areas (74%) than FP physicians (64%).
- FP primary care physicians were more likely to be practicing in small/isolated rural areas (18%) than are general internal medicine (12%) and general pediatric physicians (4%).

**Figure 5. North Dakota Primary Care Physicians by Age and Rural/Urban Status**



- Younger primary care physicians were most likely to practice in urban areas of the state, whereas those between the ages of 59-62 were most prevalent in large rural areas.
- Primary care physicians aged 63 and older were most likely to practice in small/isolated rural areas.

**Figure 6. Average Age of Primary Care Physicians for Rural/Urban Status within Four Regions of North Dakota**



- The youngest (47.4 years) primary care physicians practiced in urban areas in northeastern North Dakota.
- Small/isolated rural areas in the northeast and northwest areas of the state had the highest average age (55.1) for primary care physicians.

**Conclusions**

- Urban areas of North Dakota had 68% of the primary care physicians – and a far greater proportion of the state’s non-primary physicians – while only having 51% of the total population in North Dakota.
- The population of North Dakota’s small and isolated rural areas had disproportionately fewer primary care physicians per person than their urban counterparts.
- Statewide, only slightly more than one-third of the primary care providers were female.
- Approximately 38% of North Dakota primary care physicians did not complete medical school or a residency in the state, however an additional 30% reported completing both in the state.
- Primary care physicians in small/isolated rural areas were older than elsewhere in the state.
- The highest average age for primary care physicians was in small/isolated rural areas of northeast and northwest North Dakota.
- Primary care physicians, on average, were younger in northeast North Dakota urban areas.
- Family practice physicians were more likely to work in small/isolated rural areas.

**Data**

- The physician data are from the 2017 American Medical Association Physician Masterfile.