North Dakota Department of Health and Human Services

North Dakota HCBS Rate Study

Deliverable 3.0: Analysis of North Dakota HCBS Population and Service Utilization

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Introduction

The North Dakota Department of Health and Human Services (DHHS) entered a contractual engagement with CBIZ Optumas (Optumas) on July 1, 2022, to complete an in-depth review of the state's Home and Community Based Services (HCBS). As part of the review, Optumas was tasked with reviewing the current HCBS populations' demographics and analyzing their utilization patterns to look for service gaps that may exist. As part of the service array analysis, Optumas also compared North Dakota's service offerings to HCBS offered in Colorado, Nebraska, Montana, and South Dakota. Optumas originally started with four additional states (Idaho, Iowa, Kansas, and Minnesota), but DHHS suggested that the final states chosen have similar payment methodologies to North Dakota. The four states that were removed from the comparison pay for HCBS through Managed Long-Term Services and Supports (MLTSS), meaning that Medicaid agencies contract with managed care organizations to deliver services. In North Dakota, Colorado, Nebraska, Montana, and South Dakota, services are not delivered via managed care, but through coordination directly with the state.

The HCBS populations in North Dakota that were reviewed include the 1915(c) waivers for aging (HCBS), autism (AUT), medically fragile (MFCWVR), and children's hospice (CHW); 1915(i) State Plan Amendment; personal care services included in the Medicaid State Plan (MSP-PC), Service Payments to the Elderly and Disabled (SPED), Expanded Service Payments to the Elderly and Disabled (EX-SPED), and Development Disabilities waiver (DD).

Data Description

The data used for purposes of this analysis were comprised of claims incurred from January 1, 2021, through June 30, 2022, paid through July 2022 for the fee-for-service (FFS) population in North Dakota. An additional data set was provided with incurred dates of service from January 1, 2021, through December 31, 2021, paid through July 2022, for the North Dakota Medicaid Expansion population. Optumas did not use the Medicaid Expansion claims data after reviewing it because there were minimal claims with HCBS procedure codes.

Optumas also used monthly, member-level eligibility files provided for the FFS population. The eligibility data has three plan fields and five level of care fields that were used to determine which group each member was eligible for. The members flagged as being eligible for MSP-PC were determined by looking at the claims data where members were using those services but were not already flagged as being part of one of the other populations. Since the claims data for Medicaid Expansion was not used, the eligibility data for that population was also not used.

Claims data with incurred dates prior to 1/1/2021 were analyzed but not used for purposes of this report since Optumas was reviewing current population demographics and utilization.

After the draft of this report was sent to DHHS, it was determined that the data that was used was limited to Medicaid eligible members only, which impacted the numbers for the SPED population. The changes to this report reflect the use of the new dataset that Optumas received from DHHS.

Review Current Population Demographics by Setting by Geography

North Dakota is largely rural with few urban population centers as indicated on the map below. The largest population center is Fargo within Cass County. According to the United States Census Bureau, the population estimate for North Dakota as of July 1, 2021, was 774,948 people total. Of those residents 65 years and younger, during the period between 2016 and 2020, 7.2% had a disability. As of 2020, the population per square mile was 11.3, up from 9.7 people per square mile in 2010. The state is comprised of 53 counties, 38 of which are frontier according to the Center for Rural Health in the University of North Dakota (UND) School of Medicine and Health Sciences. The map below highlights population density of all counties within the state with orange representing the largest population area in Cass County. The other counties are all shades of blue with darker blue counties representing the least populated per square mile across the state.

Map 1: North Dakota Population Density by County
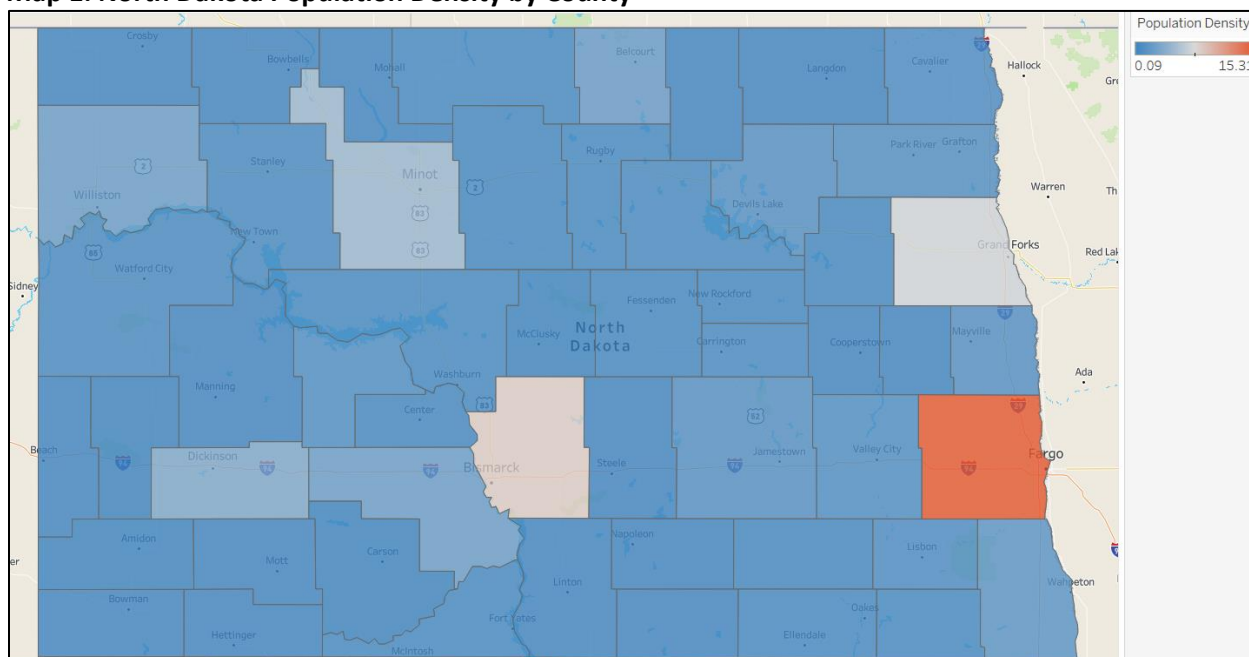
The map on the following page illustrates where people receiving services through the Autism Spectrum waiver live across the state. Predictably, the largest single group of recipients lives in Fargo. The second largest population on the Autism Spectrum waiver (AUT) is in Bismarck within Burleigh County. Total population on the waiver is 114 as of June 2022. According to the eligibility data, the beige appearing counties reflect areas where no known people with an autism spectrum disorder (ASD) reside.

Map 2a: Autism Spectrum Waiver Member Counts by City/Town
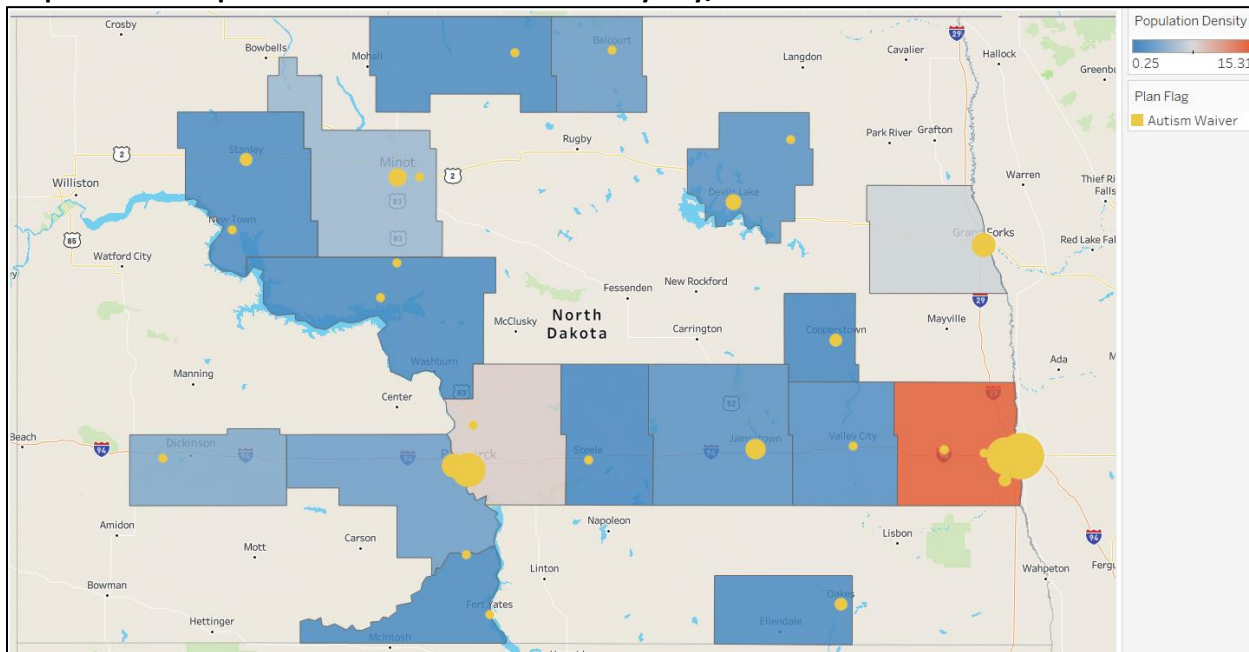
Map 2b indicates the number of people on the Developmental Disability (DD) waiver in North Dakota by county and city. The purple circles represent where people receiving those waiver services are located. The larger the circle, the larger the population receiving services. 4,802 people in the state receive services through the DD Waiver as of June 2022.

Map 2b: Developmental Disability Waiver Member Counts by City/Town
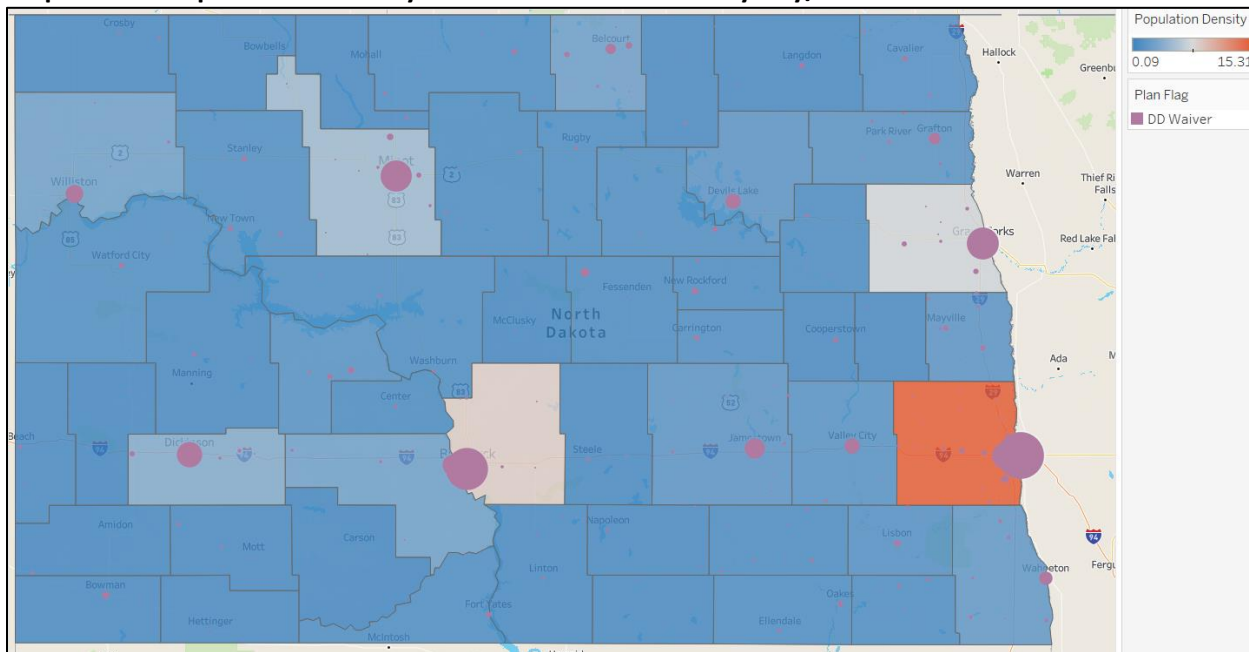
The map below illustrates the number of children on the Medically Fragile Children's waiver (MFCWVR) across the state. Again, the greatest number of children receiving those services reside in Fargo and Bismarck. The red circles on the map indicate where the members reside within cities and counties across the state. 26 children currently receive services through the Medically Fragile Children's waiver as of June 2022.

Map 2c: Medically Fragile Children's Waiver Member Counts by City/Town

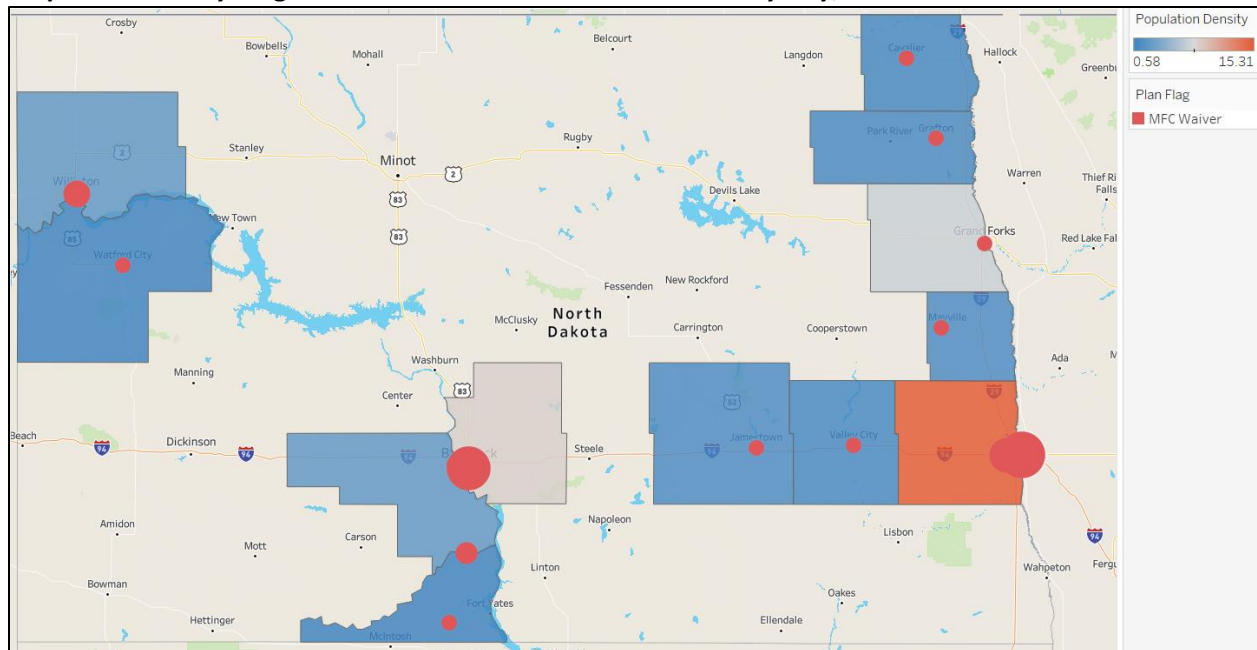The map on the next page indicates where those receiving personal care services through the Medicaid state plan amendment (MSP-PC) reside. Teal circles indicate the geographic area where members receiving services live. The larger the circle, the larger the member population in that area. While the largest group of recipients are still in Fargo, it is apparent that those eligible for services under this waiver tend to also live in rural areas.

Obtaining an accurate count from the data was challenging because this is the only program that is not flagged in the eligibility data. Optumas looked at FFS claims data to determine who was using MSP-PC services from January 2021 through June 2022, by procedure code. Using this approach, it was determined that there were approximately 1,084 members receiving personal care services through the Medicaid State Plan in June 2022.

Map 2d: Medicaid State Plan Personal Care Member Counts by City/Town
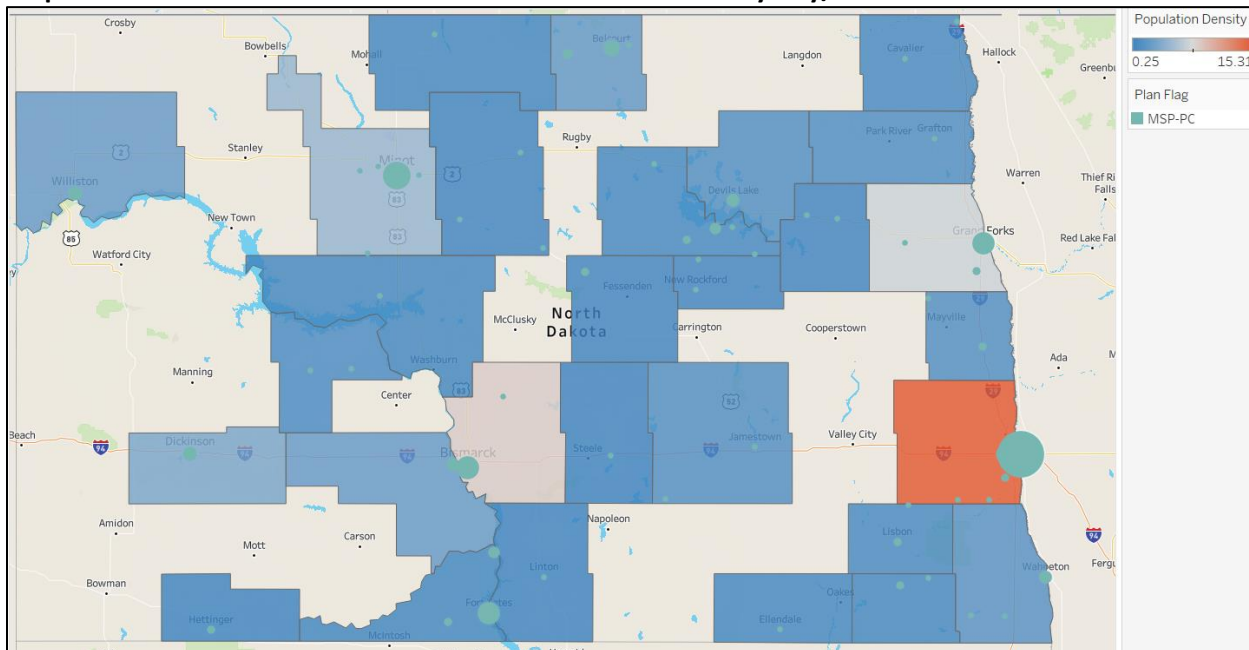
The orange circles on the map below illustrate where recipients of the Home and Community Based Services (HCBS) waiver reside across the state. Fargo, Bismarck, Minot, and Grand Forks are the cities with the most recipients. However, recipients reside across the state as indicated by the smaller orange circles. 409 members receive services through the North Dakota HCBS waiver in June 2022.

Map 2e: HCBS Waiver Member Counts by City/Town
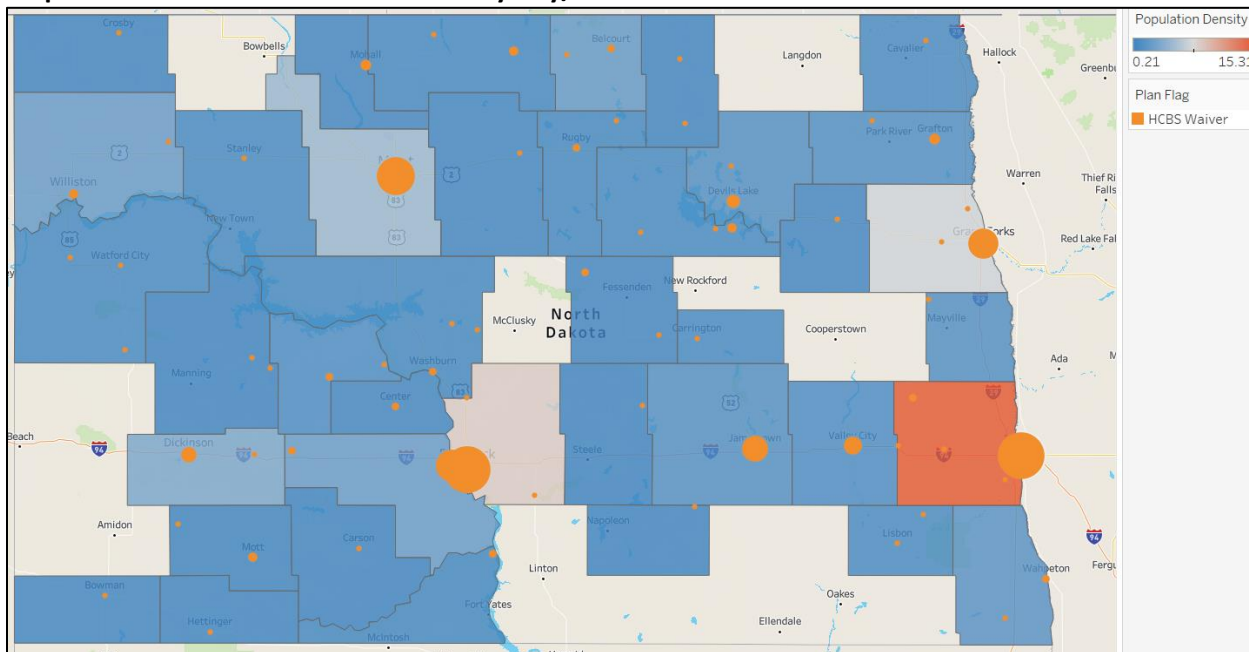
Green circles on the map below indicate where recipients of Service Payment to the Elderly and Disabled (SPED) state funded program reside. Larger circles indicate population centers where larger groups of recipients live, but smaller circles indicate recipients also live in rural and frontier areas. Currently, there are 1,613 SPED recipients in North Dakota as of June 2022.

Map 2f: Service Payment to the Elderly and Disabled Member Counts by City/Town
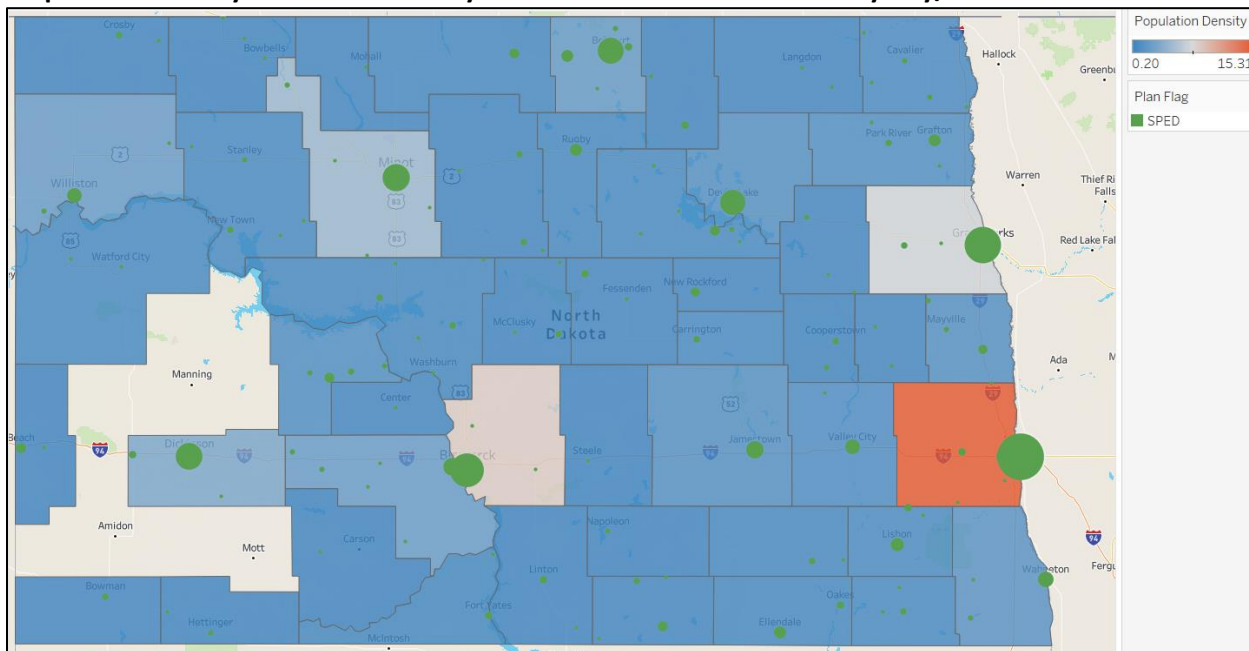
Map 2g on the following page identifies areas of the state where recipients of the Expanded Service Payment to the Elderly and Disabled (EX-SPED) reside. EX-SPED is state funded only. The largest groups of recipients of this assistance live in Fargo and Minot. The gray circles indicate, however, that service recipients for this program live in different parts of the state, including rural and frontier areas. There are currently 121 EX-SPED recipients across the state as of June 2022.

Map 2g: Expanded Service Payment to the Elderly and Disabled Member Counts by City/Town
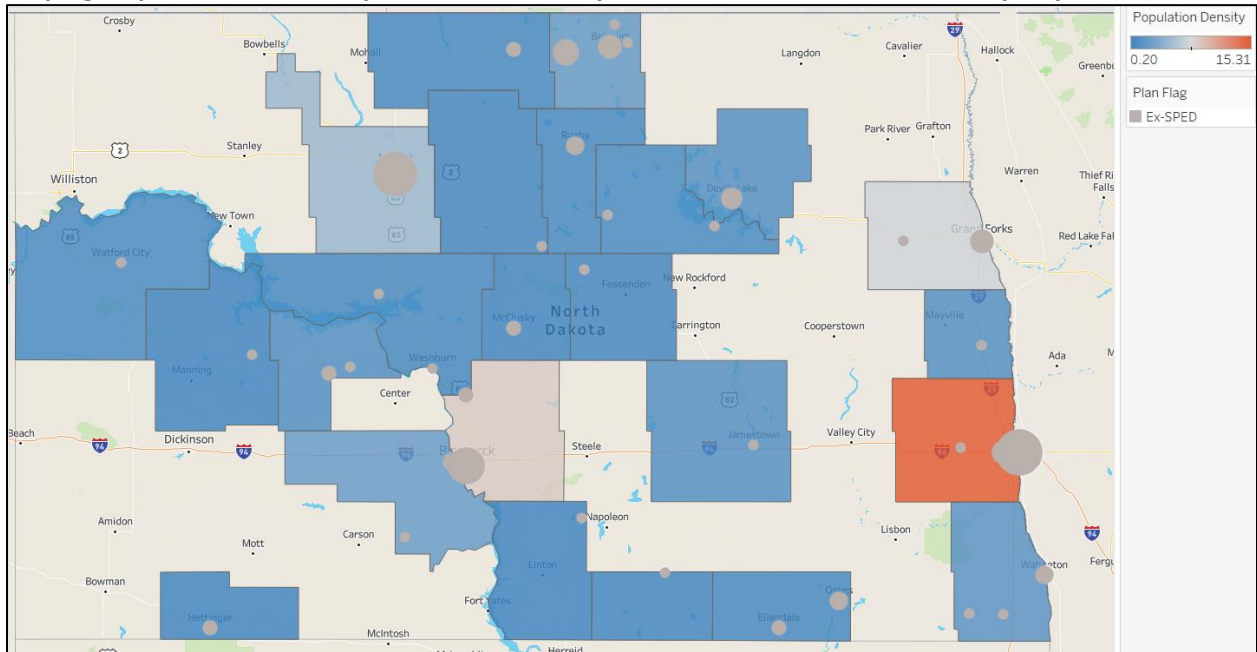
The North Dakota 1915(i) waiver provides services for people primarily in Fargo, Bismarck, and Jamestown. However, smaller blue circles can be seen in rural and frontier areas of the state on the map on the following page. 132 people are currently on the North Dakota 1915(i) waiver *from the FFS population*. Members who qualify for Medicaid Expansion are eligible for 1915(i) services, but there is almost no utilization in CY21 of services. The 1915(i) program was implemented in February 2021. DHHS has said there were 217 members between the FFS population and Medicaid Expansion who where eligible for 1915(i) as of June 2022.

Map 2h: 1915(i) Member Counts by City/Town
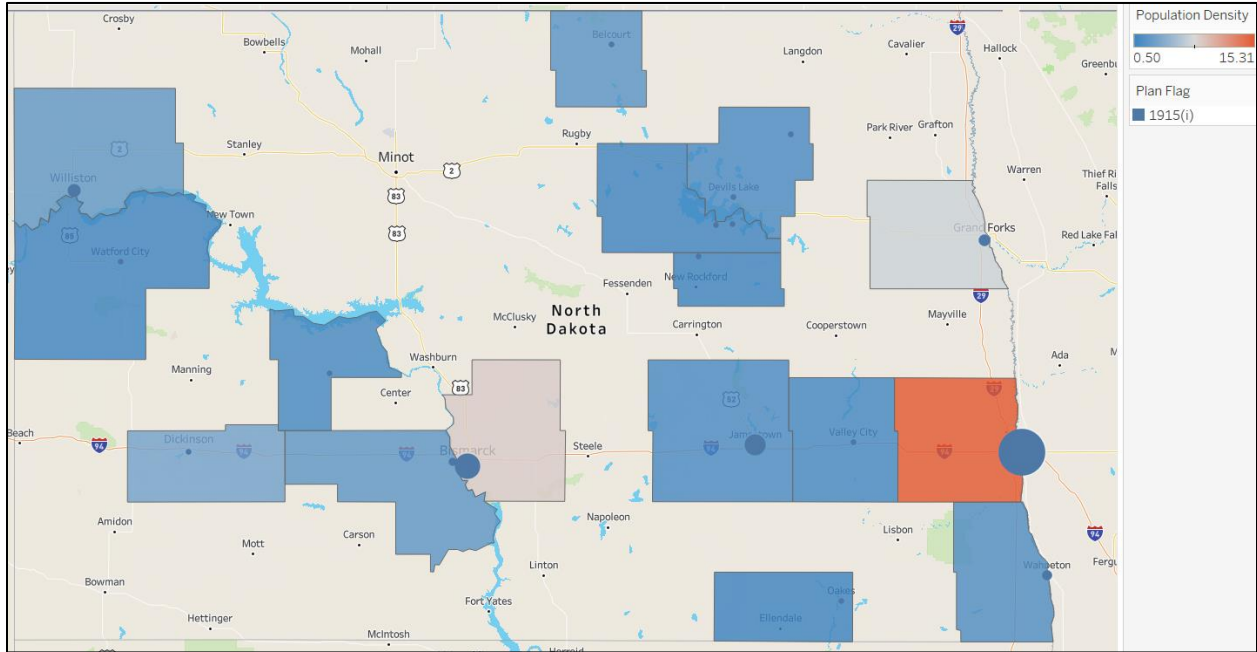
Review of Utilization Rates/Patterns

The first look at utilization rates (units per member) was done durationally by program. The members who received Medicaid State Plan personal care services and those on HCBS waiver had the highest utilization rates followed by DD waiver. HCBS and DD show a decline in utilization in the latter months, with MSP-PC remaining relatively flat. Utilization by members in the Autism waiver are also showing a decline in utilization with 1915(i) steadily increasing. The data below is based on incurred claims from January 2021 through December 2021, which is the base data used for the budget model.

Chart 1a: Utilization of All HCBS Services in North Dakota by Program Over Time (Jan'21 – Dec'21)
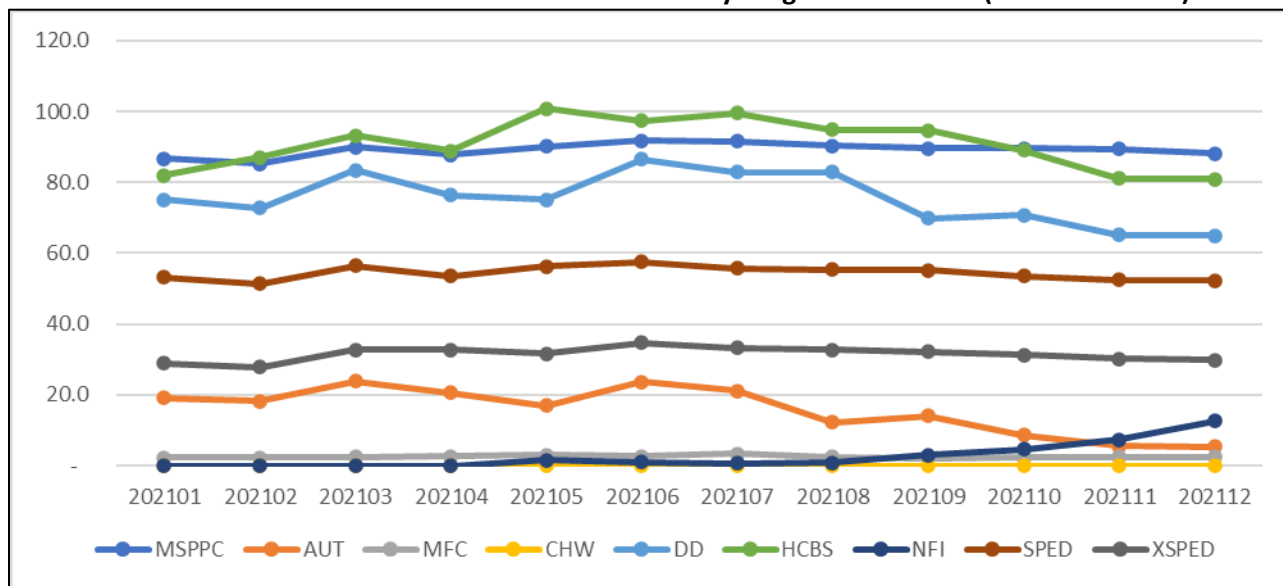
To better see utilization of services over time for programs other than MSP-PC, HCBS, and DD, a second graph is shown on the following page excluding those three. Children's Hospice continues to have no members utilizing services. All other programs show varying decreases in utilization except for 1915(i). Since 1915(i) was a new program in February 2022, utilization of those services is steadily increasing.

Chart 1b: Utilization of Subset HCBS Services in North Dakota by Program Over Time (Jan'21 – Jun'22) (Excludes MSP-PC, HCBS waiver, and DD waiver)
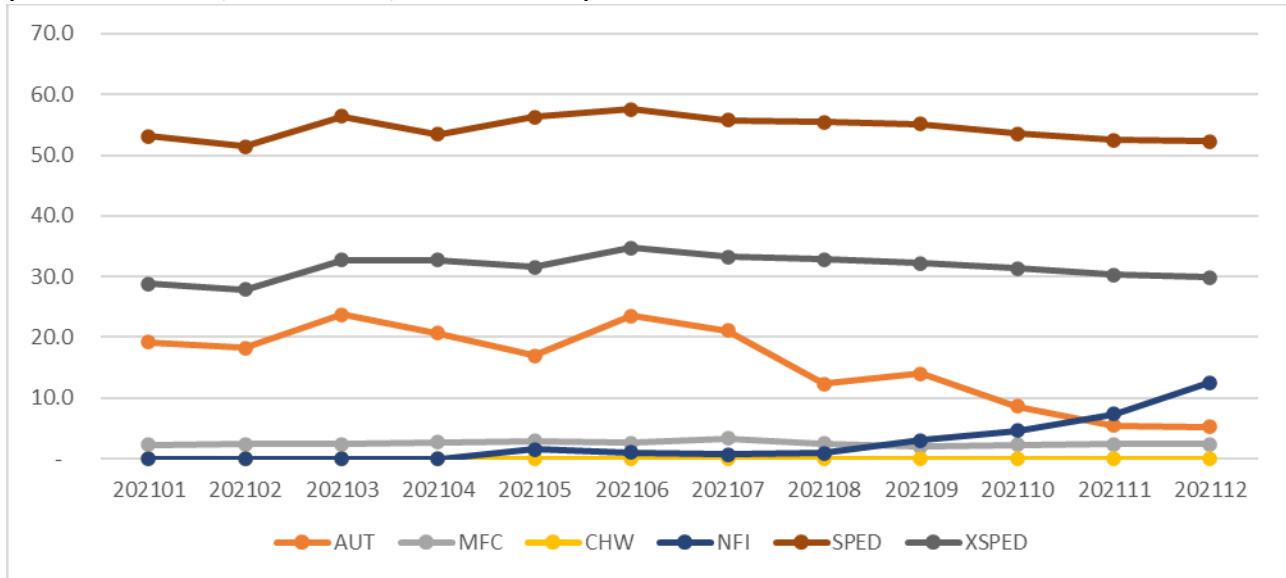
Optumas used the FFS claims and eligibility data to drill down and examine utilization at the program, county, and service level across time and will share those results in the final Deliverable #6 that is due to DHHS on November 11, 2022. An example of the additional comparisons that Optumas will provide in the final report is utilization of all services by the HCBS waiver population for rural, urban, and frontier counties.

To conclude, Optumas reviewed utilization of HCBS over time by program, county, and services to identify and understand gaps that might exist. A review of these gaps is discussed in this report and additional insights will be provided in the final report due on November 11, 2022.

Comparison to Other States

Service offerings by HCBS population in North Dakota were compared with those from four other states: Colorado, Nebraska, Montana, and South Dakota. A crosswalk of services provided in North Dakota was provided by DHHS and was compared to services in other states. The North Dakota crosswalk is shown in Appendix B.

Optumas looked at payment methodologies for HCBS in eight states; in addition to the four listed above, Idaho, Iowa, Kansas, and Minnesota were also reviewed. In these four states, HCBS is paid through managed care. Since that differs from North Dakota's current methodology, the states were eliminated from the comparison.

The service offerings in Colorado, Nebraska, Montana, and South Dakota can be seen in Appendix D.

Optumas cross-walked North Dakota's services by waiver program to services and programs in the four comparison states. Tables on the following pages provide these comparisons. A key is provided at the bottom of each table indicating whether the state offers the same services across each of the North Dakota waivers.

North Dakota									
Montana									
Services	**MSP-PC**	**AD**	**DD**	**AUT**	**MFC**	**CH**	**SPED**	**Ex-SPED**	**1915i**
Adult Day		x	x				x	x	
Adult Foster Care		x	x				x	x	
Adult Residential		x							
Assistive Technology				x					
Benefits Planning		x	x						x
Case Management	x	x		x	x	x	x	x	x
Chore Service		x					x	x	
Community Support Services		x							x
Companionship Services		x							
Counseling Services					x				
Dietary Supplements					x				
Emergency Response System (LIFELINE)		x	x				x	x	
Environmental Supports/Modification		x	x		x		x	x	
Equipment and Supplies		x	x		x				
Expressive Therapy						x			
Extended Personal Care		x					x		
Family Home Care							x	x	
Family Peer Support									x
Family Personal Care		x							
Grief Counseling						x			
Home Delivered Meals		x					x	x	
Homemaker Service		x	x				x	x	
Hospice						x			
Housing Support Services									x
In Home Support (provider managed)			x						
Nurse Education Care		x					x		
One-time Transition Costs		x	x						
Palliative Care						x			
Personal Care	x						x		
Personal Care (assisted living)							x		
Prevocational Training			x						x
Residential Habilitation		x	x						
Respite Care		x		x		x	x	x	x
Respite Care (institutional)		x			x		x	x	
Self-directed Supports			x	x	x				
Skilled Nursing			x			x			
Supported Education									x
Supported Employment		x	x						x
Training and Supports to Unpaid Caregivers									x
Transition Coordination		x							
Transitional Living		x							
Transportation		x					x	x	

Key
Montana Waiver Service
North Dakota Waiver Service
Similar Service offered in both states

Color only = Shared or similar service offered, but not equally across waivers. Color plus X = Shared or similar service offered in both waivers.

Services	MSP-PC	AD	DD	AUT	MFC	CH	SPED	Ex-SPED	1915i
North Dakota									
Colorado									
Adult Day		x	x				x	x	
Adult Foster Care		x	x				x	x	
Adult Residential		x							
Assistive Technology				x					
Benefits Planning									x
Case Management	x	x		x	x	x	x	x	x
Chore Service		x					x	x	
Community Support Services		x							x
Companionship Services		x							
Counseling Services					x				
Dietary Supplements					x				
Emergency Response System (LIFELINE)		x	x				x	x	
Environmental Supports/Modification		x	x		x		x	x	
Equipment and Supplies		x	x		x				
Expressive Therapy						x			
Extended Personal Care		x					x		
Family Home Care							x	x	
Family Peer Support									x
Family Personal Care		x							
Grief Counseling						x			
Home Delivered Meals		x					x	x	
Homemaker Service		x	x				x	x	
Hospice						x			
Housing Support Services									x
In Home Support (provider managed)			x						
Nurse Education Care		x					x		
One-time Transition Costs		x	x						
Palliative Care						x			
Personal Care	x						x		
Personal Care (assisted living)							x		
Prevocational Training			x						x
Residential Habilitation		x	x						
Respite Care		x	x	x		x	x	x	x
Respite Care (institutional)		x			x		x	x	
Self-directed Supports			x	x	x				
Skilled Nursing			x			x			
Supported Education									x
Supported Employment		x	x						x
Training and Supports to Unpaid Caregivers									x
Transition Coordination		x							
Transitional Living		x							
Transportation		x					x	x	

Key
Colorado Waiver Service
North Dakota Waiver Service
Similar Service offered in both states

Color only = Shared or similar service offered, but not equally across waivers. Color plus X = Shared or similar service offered in both waivers.

Service	MSP-PC	AD	DD	AUT	MFC	CH	SPED	Ex-SPED	1915i
North Dakota									
Nebraska									
Adult Day		x	x				x	x	
Adult Foster Care		x	x				x	x	
Adult Residential		x							
Assistive Technology				x					
Benefits Planning									x
Case Management	x	x		x	x	x	x	x	x
Chore Service		x					x	x	
Community Support Services		x							x
Companionship Services		x							
Counseling Services					x				
Dietary Supplements					x				
Emergency Response		x	x				x	x	
Environmental Supports/Modification		x	x		x		x	x	
Equipment and Supplies		x	x		x				
Expressive Therapy						x			
Extended Personal Care		x					x		
Family Home Care							x	x	
Family Peer Support									x
Family Personal Care		x							
Grief Counseling						x			
Home Delivered Meals		x					x	x	
Homemaker Service		x	x				x	x	
Hospice						x			
Housing Support Services									x
In Home Support (provider managed)			x						
Nurse Education Care		x					x		
One-time Transition Costs		x	x						
Palliative Care						x			
Personal Care	x						x		
Personal Care (assisted living)							x		
Prevocational Training			x						x
Residential Habilitation		x	x						
Respite Care		x	x	x		x	x	x	x
Respite Care (institutional)		x			x		x	x	
Self-directed Supports			x	x	x				
Skilled Nursing			x			x			
Supported Education									x
Supported Employment		x	x						x
Training and Supports to Unpaid Caregivers									x
Transition Coordination		x							
Transitional Living		x							
Transportation		x					x	x	

Key
Nebraska Waiver Service
North Dakota Waiver Service
Similar Service offered in both states

Color only = Shared or similar service offered, but not equally across waivers. Color plus X = Shared or similar service offered in both waivers.

Service	MSP-PC	AD	DD	AUT	MFC	CH	SPED	Ex-SPED	1915i
North Dakota									
South Dakota									
Adult Day		x	x				x	x	
Adult Foster Care		x	x				x	x	
Adult Residential		x							
Assistive Technology				x					
Benefits Planning									x
Case Management	x	x		x	x	x	x	x	x
Chore Service		x					x	x	
Community Support Services		x							x
Companionship Services		x							
Counseling Services					x				
Dietary Supplements					x				
Emergency Response (personal)		x	x				x	x	
Environmental Supports/Modification		x	x		x		x	x	
Equipment and Supplies		x	x		x				
Expressive Therapy						x			
Extended Personal Care		x					x		
Family Home Care							x	x	
Family Peer Support									x
Family Personal Care		x							
Grief Counseling						x			
Home Delivered Meals		x					x	x	
Homemaker Service		x	x				x	x	
Hospice						x			
Housing Support Services									x
In Home Support (provider managed)			x						
Nurse Education Care		x					x		
One-time Transition Costs		x	x						
Palliative Care						x			
Personal Care	x						x		
Personal Care (assisted living)							x		
Prevocational Training			x						x
Residential Habilitation		x	x						
Respite Care		x	x	x		x	x	x	x
Respite Care (institutional)		x			x		x	x	
Self-directed Supports			x	x	x				
Skilled Nursing			x			x			
Supported Education									x
Supported Employment		x	x						x
Training and Supports to Unpaid Caregivers									x
Transition Coordination		x							
Transitional Living		x							
Transportation		x					x	x	

Key
South Dakota Waiver Service
North Dakota Waiver Service
Similar Service offered in both states

Color only = Shared or similar service offered, but not equally across waivers. Color plus X = Shared or similar service offered in both waivers.

Identify Potential Gaps in Service Array

DHHS provided Optumas with a crosswalk of services across all state waiver programs, which is included in Appendix B. Since the first draft of this report was sent to DHHS, additional updates were made to the crosswalk and the results can be seen in subsequent deliverables. These data were as building blocks for the fiscal impact model.

Optumas used the crosswalk received from DHHS to evaluate whether there were services not being utilized between January 2021 and June 2022. This view provided high-level insight into gaps in the service array for each program. The results of this analysis can be found in Appendix C, which lists services by program with no utilization from January 2021 through June 2022.

When reviewing HCBS claims data, Optumas determined that members receiving services reside in all 53 counties; however, seven of those counties do not have providers. This was determined by using the **prov_serv_zip** field in the FFS claims data, which was interpreted to be the servicing provider zip code. The counties without providers were Billings, Burke, Golden Valley, Griggs, Sheridan, Slope, and Steele. All seven counties are classified as frontier counties, which could mean that providers drive from other counties to provide services. Each of the seven counties either has a Human Service Zone office located in the county or adjacent to the county. It's possible that the Human Service Zones act as the enrolled Qualified Service Provider in those counties.

Map of Human Service Zones from North Dakota's website:

As mentioned in the Introduction section of this report, Optumas received claims data for the North Dakota Medicaid Expansion population with incurred dates from January 1, 2021, through December 31, 2021. Table 1 lists the HCBS procedure codes found in the data.

Table 1: HCBS Procedure Codes in the North Dakota Medicaid Expansion Data

proc_1	proc_2	# of Claims	Procedure Code Description
H0038		3	Peer Support for 1915(i)
RV0023	G0299	16	Skilled Nursing - RN for CHW
RV0250	G0299	8	Skilled Nursing - RN for CHW
RV0551	G0299	585	Skilled Nursing - RN for CHW
RV0551	G0300	25	Skilled Nursing - LPN for CHW or Extended Home Health for DD
RV0651	Q5001	350	Hospice for CHW
RV0944	T1016	1	Case Management for MFCWVR and CHW
RV0945	T1016	2	Case Management for MFCWVR and CHW
T1016		326	Case Management for MFCWVR and CHW

Optumas assumed that 1915(i) claims would be found in the Medicaid Expansion data, but H0038 is the only procedure code found for that program and there are only three instances of that procedure code in the data. For this reason, the data indicates that very few Medicaid Expansion members enrolled in the 1915(i) waiver are receiving services outside of peer support, which indicates the existence of service gaps. The other HCBS procedure codes listed in Table 1 would not be for members on the Children's Hospice waiver or Medically Fragile Children's waiver since the Medicaid Expansion population is only adults.

Two of the waiver programs were identified as having wait lists: Autism Spectrum waiver has 66 children on the wait list; and Medically Fragile Children's waiver has 10 on the wait list. Both are due to lack of providers according to the program. Additionally, providers may have waiting lists of which the state is not aware. Any member waiting for services is an indication that a gap exists.

Optumas will continue analyzing and report on gaps in services in future deliverables.

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Appendices

The appendices are contained in the accompanying Excel workbook with the following title:

ND HCBS Appendices for Deliverable 3.xlsx

Appendix A: List of HCBS Procedure Codes
Appendix B: HCBS Service Crosswalk Grid with Procedure Codes
Appendix C: HCBS Service Crosswalk Grid with Counts of Members Who Have Used Services
Appendix D: Lists of Other States' HCBS Service Offerings