

Promoting Telehealth in Rural America NOSORH Comments on the FCC Further Notice of Proposed Rulemaking

Introduction

On February 22, 2022 the Federal Communications Commission (FCC) released a Further Notice of Proposed Rulemaking (FNPRM), WC Docket No. 17-310, seeking comment on several proposed revisions to the Commission's Rural Health Care (RHC) Program rules. The proposed revisions are designed to ensure that rural healthcare providers receive funding necessary to access the broadband and telecommunications services. In this communication, the National Organization of State Offices of Rural Health (NOSORH) provides comments and recommendations related to issues raised in the FNPRM.

NOSORH was established in 1995 to assist State Offices of Rural Health (SORHs) in their efforts to improve access to, and the quality of, health care for over 57 million rural Americans. All 50 states have a SORH, and each SORH helps their state's rural communities to build effective health care delivery systems. High speed broadband services are important to rural health care, permitting delivery of telehealth services, digital exchange of clinical data between providers, and submission of billing to payors. Ensuring adequate high-speed broadband for all rural areas will provide a necessary digital backbone for the rural health care system.

NOSORH's comments, provided below, address questions of how the FCC might best approach the definition, categorization and prioritization of rural locations for its RHC Program. The comments also discuss how the release of 2020 Census data can affect RHC Program operations. Finally, the comments provide NOSORH's perspective on the real-world relationship between the measured *degree of rurality* and *telehealth costs*.

Comments

Issue - Defining and Categorizing Rural Locations

Discussion: The current definition of rural used by the RHC Program is an adequate approach to delineating locations that are distinct from those in larger urban settlements. A Census Tract (CT) focus is appropriate, permitting identification of locations near larger settlements that are non-urban in nature. It permits delineation of rural locations within larger areas – such as counties – which might otherwise go unidentified.

There are several alternative definitions of rural which might be worth consideration. Some of these definitions are *county-based* and are less useful for identifying rural locations within county boundaries. There are several, however, which include sub-county rural areas. Two of these consider *distance to urban settlements* in addition to *total*

population size of the rural location. This could provide an additional dimension to the FCC's delineation of rural.

The Federal Office of Rural Health Policy (FORHP) defines a useful set of designated rural areas. This dataset includes both county-wide and subcounty locations, and is the successor to the Goldsmith modifications previously used by the Health Resources and Services Administration (HRSA) in identifying subcounty rural areas. The FORHP definitions are based on population settlement size as well as on proximity to larger urban settlements. Commuting distance is used as a measurement of urban proximity.

The FORHP set of designated rural locations is updated regularly. Its definitions are included in the 'Am I Rural' tool, permitting simple lookup of any address:

<https://www.ruralhealthinfo.org/am-i-rural>

Use of the FORHP definitions would permit coordination of FCC RHC Program eligibility with those of this Federal office, as FORHP uses these definitions as a basis for its multiple initiatives. It should be noted that FORHP's definitions are not readily adaptable for defining degrees of rurality.

The US Department of Agriculture – Economic Research Service Rural-Urban Commuting Area (RUCA) codes are defined at the Census Tract level and provide a comprehensive identification of rural locations as well as a useful categorical approach to degree of rurality. RUCA codes reflect measures of *population density*, *urbanization*, and *daily commuting* to create an overall rurality indicator. The RUCA approach assigns each tract a rurality score of between 1-10 based upon these multiple measures. RUCA codes provide a multi-level, multi-dimensional categorization of rurality.

FORHP rural definitions are based, in part, on RUCA definitions, resulting in a high correspondence between FORHP and RUCA definitions of rural. RUCA codes are included in the 'Am I Rural' lookup tool, permitting RUCA code identification for any location.

The Index of Relative Rurality (IRR) is a conceptual measure developed by researchers at Purdue University. The IRR considers four dimensions - *population size*, *population density*, *extent of urban (built-up) area*, and *remoteness* – to create a continuous scale index number between 0-1. Each dimension measure is weighted evenly in the resulting index. Higher IRR scores are considered more rural and lower IRR scores are considered more urban.

The IRR has been applied largely at the county level, but could, theoretically, be applied to Census Tract or other levels. The IRR is not currently included in the 'Am I Rural' lookup tool. There is also some question about the index's consistency with other measures of relative rurality. One study calculated the IRR for ZIP Codes and compared results to RUCA ZIP Code classifications:

<https://onlinelibrary.wiley.com/doi/10.1111/jrh.12148>

The study found that RUCA definitions and the IRR do not consistently classify the same ZIP code areas and populations as rural. This raises some question about the IRR usefulness for program policy purposes.

Recommendation: NOSORH understands that no single definition of rurality can fully measure all dimensions of what is considered ‘rural’. Given the limitations of all definitions, **NOSORH recommends that the FCC consider using RUCA categories of rural at the Census Tract level.** This would make FCC program eligibility considerations consistent with the approach of FORHP and other rural initiatives. It would also permit potential applicants to utilize the ‘Am I Rural’ tools to assess their eligibility for the FCC RHC Program.

Issue – Priority Rural Tiers

Discussion: The FCC currently uses an eight-tier priority system giving highest priority to rural locations in designated Medically Underserved Areas/Populations (MUA/Ps) and lower priority to rural locations outside of MUA/Ps. NOSORH believes that the current rural categories used by the FCC in its prioritization are reasonable. NOSORH also believes, as discussed previously, that other approaches to rural categorization, such as an approach based on RUCAs, would be useful in defining rural priority categories.

NOSORH, however, believes that there are serious problems in the use of MUA/Ps as indicators of medical service need. MUA/Ps have multiple limitations:

- MUA/Ps are based upon service need measures limited to primary care. This is not necessarily a good indicator for specialty service or inpatient facility needs. MUA/Ps.
- MUA/Ps mix and match *total population and sub-population needs*. Of the 17,444 locations designated as MUA/P, 13,181 (76%) are MUAs and 4,263 (24%) are MUPs. MUAs are geographic designations for the total population of a geographic area. MUPs are designations for subpopulations of an area, such as low-income population, Medicaid-eligible population, homeless population, Native American population or migrant population. A health care provider in an MUP does not necessarily provide services to the designated sub-population and should not be given priority for FCC RHC Program funding if it does not.

Even if the FCC were to limit priority to MUA, excluding MUPs, serious issues still exist. The MUA designation dataset is not regularly reviewed, and many of the MUA designations are outdated. See the table below:

Medically Underserved Areas (MUAs)		
-- Last Update		
More than 10 Years	11,407	86.5%
More than 20 years Old	9,119	69.2%
More than 25 Years	8,383	63.6%
All MUAs	13,181	100.0%

Note that 86.5% of all MUAs are more than 10 years old. For almost 70% of all MUAs it has been more than 20 years since the designation was last updated. This makes MUAs seriously flawed as a measure of current medical underservice.

If we were to limit consideration to *rural* or *partially rural* MUAs, the same question of outdated measurement exists. See the table below:

Rural Medically Underserved Areas (MUAs)		
-- Last Update		
More than 10 Years	3,342	82.6%
More than 20 years	2,690	66.5%
More than 25 Years	2,496	61.7%
All MUAs	4,046	100.0%

Rural MUAs are outdated in about the same proportion as all MUAs. About 5 out of 6 rural MUAs are at least 10 years old and 2 out of 3 are at least 20 years old. Clearly another measure of medical underservice is needed.

Recommendation: NOSORH recommends that the FCC explore alternative ways of establishing whether an applicant is in a rural location with documented medical underservice. A simple starting point would be to consider the status of the health service provider. For example, the Centers for Medicare and Medicaid Services (CMS) maintains an active list of *Essential Community Providers* (ECPs). See the table below for ECP categories:

Table 1: Federally Defined Essential Community Providers⁷	
Major ECP Category	Provider Types
Federally Qualified Health Center (FQHC)	FQHC and FQHC "look-alike" clinics, outpatient health programs/facilities operated by Indian tribes, tribal organizations, program operated urban Indian organizations
Ryan White Provider	Ryan White HIV/AIDS program providers
Family Planning Provider	Title X family planning clinics and Title X "look-alike" family planning clinics
Indian Health Provider	Indian Health Service (IHS) providers, Indian tribes, tribal organizations and urban Indian organizations
Hospital	Disproportionate share hospital (DSH) and DSH-eligible hospitals, children's hospitals, rural referral centers, sole community hospitals, free-standing cancer centers, critical access hospitals
Other ECP Provider	STD clinics, TB clinics, hemophilia treatment centers, black lung clinics, and other entities that serve predominately low-income, medically underserved individuals

This listing is updated annually and published for use by the public. Individual providers, if not otherwise part of a pre-defined category, can apply to CMS to be considered as part of the 'Other ECP Provider' category. The use of such this exception mechanism can extend ECP qualification and program priority to providers of many types – far beyond those identified by the MUA primary care underservice measure.

NOSORH notes that additional categories of provider could be included in the core definition of ECP. These could include community mental health centers, hospitals participating in the Small Rural Hospital Improvement Program, or selected long-term care facilities. **NOSORH suggests that expanded categories of prioritized providers should be identified in subsequent requests for input.** NOSORH also notes that

several states have their own lists of ECPs which could be used as guidance for additional ECP categories.

Complications Presented by the 2020 Census Enumeration

Discussion: The 2020 Census enumeration will have a significant impact on the identification of eligible and priority locations for the RHC Program. All rural-focused initiatives will be facing similar complications. Census 2020 *redistricting* is substantial, and the redefinition of Census areas affects all analysis levels - including Blocks, Block Groups, and Tracts.

Census Tracts (CTs), important units for many Federal programs, have been extensively redefined. In New Mexico, for example, the number of CTs has increased more than 20%, from 499 to 612. New tracts are, to some extent, subdivisions of previous tracts. In other cases, however, 2010 tracts have been combined. Further, in numerous cases, tract boundaries have been completely redrawn. These redefinitions will affect both rural and urban locations.

The enumeration itself will also have impact on rural definitions and categories. Some areas that are currently considered rural, under various definitions, may become non-rural. NOSORH notes that the data needed to calculate *tract population*, *population density* and *distance from urban settlements* have not yet been released. These detailed datasets will not become available for 1-2 years. This includes release of Core-Based Statistical Area (CBSA) data, population density data and other indicators used in the categorization of rural and urban areas.

Analysis conducted by other agencies, including the Office of Management and Budget and the USDA-ERS is dependent on these subsequent releases. Secondary analyses by these agencies including the delineation of Metropolitan Statistical Areas, Micropolitan Statistical Areas, Rural-Urban Commuting Area Codes, Rural-Urban Continuum Codes and Urban Influence Codes cannot be completed until release of more detailed enumeration data. Tertiary analyses, including the Index of Relative Rurality, will also be affected.

Recommendation: NOSORH suggests that the FCC delay any major revision of rural definitions, categories and priorities until the full results of the 2020 Census enumeration have been released. This delay will permit appropriate recalculation of all rurality measures and categories. It will also allow time for analysis of the *impact* of the new data on previously prioritized rural locations.

Issue – Relationship of Telehealth Cost and Degree of Rurality

Discussion: The FCC FNPRM states:

“In the Promoting Telehealth Report and Order, the Commission decided that the determination of what rural areas are “comparable” should be based on the factors impacting the cost to provide services, and adopted rurality tiers based ***on the***

assumption that the costs to provide telecommunication services increases as the population density of an area decreases. We continue to believe that grouping health care providers by geographic area is the best way to ensure that carriers are compensated based on services provided to health care providers in “comparable rural areas” and that it is appropriate to consider comparability of rural areas by looking at the factors impacting cost and seek to identify what those factors might be.”

While this might be an accurate assumption in general terms, NOSORH questions whether this association can be expected in the applications from all eligible health service providers. NOSORH notes that telehealth costs can reflect factors separate from any specific measure of rurality. In addition, NOSORH also notes that areas at the same unit of analysis – say Census Tracts – can be vastly different in nature, and that health service providers in apparently equivalent Census Tracts could face markedly different telehealth connection and operational costs.

Much of these differences are associated with population settlement patterns. Settlement patterns in different regions of the country vary substantially. As an example, it has long been accepted that the intermountain region of the nation west of the 100th Meridian has lower rainfall, and that subareas in that geographic region tend to have lower population densities than do subareas east of that dividing line.

- <https://news.climate.columbia.edu/2018/04/11/the-100th-meridian-where-the-great-plains-used-to-begin-now-moving-east/>

NOSORH notes that similar geographic units of analysis differ on either side of this dividing line, particularly in rural locations. Rural counties and Census Tracts can be significantly larger in the semiarid West. This reflects the basis of Census Block definitions which are designed to include *equivalent numbers of residential structures*. If settlement patterns are less dense, there will be fewer residences per square mile and Census Blocks will encompass larger areas.

NOSORH also notes that there can be significant variability in settlement patterns *within* any region of the nation, and that this can have an impact on the cost of telehealth services. As an example, consider Census Tract 970000 in Hidalgo County NM. In the 2010 Census a total population of 2,195 was counted within the tract. The tract itself was huge – more than 3,340 square miles – yielding a Tract population density of only 0.64 persons per square mile. The overwhelming bulk of this population is concentrated within the town of Lordsburg, which makes the overall population density somewhat misleading.

In comparison, consider Census Tract 942900 on the Navajo Nation in San Juan County NM. In the 2010 Census a total population of 4,929 was counted within the tract. The Tract itself was large – over 950 square miles – but only about a third as large as Tract 970000. Its population density was 5.18 persons per square mile. Unlike the Tract in Hidalgo County, however, there is no significant population settlement. The largest Census Designated Place is Newcomb, an unincorporated settlement with only 339 people.

This comparison shows that population size and density do not clearly reflect settlement patterns. Tract 97000 has a highly concentrated population despite its smaller total population and lower population density. Tract 942900 has a higher total population and a higher population density, but its population is much more dispersed, as is typical of the Navajo Nation.

The cost of providing broadband connection and ongoing service to health providers in Census Tract 942900 will likely be higher than in Tract 97000, despite total population and population density indicators that might suggest otherwise. There is no broadband backbone for this vast part of the country. In fact, throughout the entire Navajo Nation there is a lack of basic utility infrastructure. Of the 55,000 households on the Nation, about 15,000 do not have electricity:

<https://grist.org/justice/navajo-nation-electricity-power-covid/>

The cost of building out basic utility networks, including broadband, for these areas will be much different than for areas with more concentrated population and an established utility infrastructure.

NOSORH believes that the FCC operating assumption, that – *the cost to provide telecommunication services increases as the population density of an area decreases* – is reasonable. However, NOSORH believes this assumption cannot easily be translated into effective program policy with Census units as currently defined. The comparison case presented previously shows an instance where the cost of broadband connection in a Census Tract with a larger population and higher population density will likely be higher than a comparative Tract with smaller population and lower population density.

Recommendation: NOSORH suggests that the FCC reconsider its assumption that ‘comparable rural areas’ will have comparable telehealth costs. While NOSORH believes that the development of priority tiers for the funding of RHC Program projects is useful, it **recommends that the funding of projects reflect the actual cost of connection and operation, with the full understanding that these costs, even within otherwise comparable rural areas, can vary dramatically.**