The Unique Landscape of Rural Community Environments

RTC:Rural focuses our research on disability in rural America because we understand that the needs and opportunities of people living in rural communities can be very different than those in urban areas. Rural landscapes dominate American geography. Rural areas account for 72% of the total landmass of the United States and approximately 45 million Americans live in these areas (OMB, 2015). While rural Americans account for only 14% of the total US population, they represent a higher share of people who live in poverty, have a disability, and are elderly (details in Geography of Rural Disability section, below).

Americans living in rural areas typically rely on services that are more informal and less specialized; must travel farther and pay more for those services; and tend to receive lower quality services than their urban counterparts (Whitener, Weber, & Duncan, 2001; Dabson & Weber, 2008). These factors intensify the experience of aging and disability, and illustrate the need to address the unique rural challenges to acquire services and supports. In fact, our most recent research has revealed that people living in rural areas report onset of disability a decade earlier than urban residents (see Rural Penalty, below).

A Community-Based Approach to Disability Research

RTC:Rural studies the interactions between personal and environmental factors that influence the rural disability experience in the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) priority areas of health, community living, and employment. We incorporate the first-hand experiences of rural people with disabilities to develop evidence-based solutions that respond to their unique needs. We tailor our methods to rural environments and the systems disability consumers and stakeholders use. By engaging...
stakeholders in our research and development activities, we ensure that the solutions we produce are relevant, appropriate, and meaningful for rural people. Finally, we work to educate policy makers to foster broad adoption of effective solutions.

Recent Research Results and Solutions

Following are brief descriptions that highlight current results from our community-based research. We begin with our geography of rural disability projects, which provide a foundation for understanding the rural health, community living, and employment focus areas. We also include descriptions of current and emerging solutions to the rural challenges people with disabilities face to demonstrate our commitment of research to practice.

I. Geography and Rural Disability

Our geography projects use the American Community Survey (ACS) and other national datasets to help us understand the disability experience and access to services across rural America. This work builds on past research to clarify working definitions of rural geography and develop resources to help people access data for their rural communities. Geographic analyses are an essential component of our integrated research agenda as they lay the groundwork for our health, employment, and community living research.

The Geography of Disability in Rural America

Our analyses of national datasets show that rates of disability are higher in rural counties than in urban ones. Disability rates vary from 11.7% in urban (metropolitan) counties to 17.7% in the most rural nonmetropolitan counties. These higher rates persist across gender, race, impairment type, and all age groups. Rural veterans and rural people experiencing poverty also report higher disability rates than their urban counterparts (Seekins & Greiman, 2014; von Reichert, Greiman, & Myers, 2017). Although we generally see higher disability rates in rural counties, we have also found considerable regional variation across the nation. Our widely disseminated Disability across America map series illustrates this diversity across regions. Our maps allow us to further explore these differences, such as employment rates for people with disabilities. Regional and geographic variations in employment outcomes are not fully explained by health, education, and economic factors. Consequently, we are currently exploring factors such as access to health and independent living services and contribution of government contracts to employment outcomes among people with disabilities.

- Billy Altom, Little Rock, Arkansas
  Executive Director, Association of Programs for Rural Independent Living

“As a grassroots organization, we operate based on the knowledge and resources of our peers and partners across the country, and it is invaluable to our work at the Association of Programs for Rural Independent Living to have RTC:Rural as a research partner. Their work has helped us all understand the distribution of people with disabilities throughout our country and our communities, and also highlights the continuing struggles that people with disabilities in rural America deal with in trying to access services. We work together to find solutions to common problems and to bring rural issues in independent living into focus on the national level.”
The U.S. Census Bureau makes its data available via the American FactFinder; however, through conversations with disability service providers and consumers we learned that the online FactFinder technology has some serious accessibility limitations. In response, we developed the Disability Counts Data Finder which provides an accessible online tool for individuals and service providers to easily obtain disability data for the counties they serve.

**Access to Centers for Independent Living**

Centers for Independent Living (CILs) provide critical services and supports for people with disabilities. However, the reach of these services can be limited by financial, administrative capacity, and geographic factors. CILs are generally funded to serve cities and towns in which they are located and surrounding counties. However, data on these counties are disjointed and limited. Therefore, we used a network analysis as an alternative method for measuring geographic access to services. We measured driving distances to and from CIL locations based on a national road network and, by combining this with data from the ACS, determined the disability populations living beyond the reach of a CIL.

According to our analysis, there are approximately 400 Centers for Independent Living, with a total of nearly 650 office locations across the country. Preliminary results indicate that there are over 3.6 million households with individuals with disabilities located more than 65 miles from a CIL. This represents 12% of all households with individuals with disabilities, and a majority of these households are located in rural areas.

**II. Health and Rural Disability**

We began our rural health and disability research in 1989 when we first studied how rural people transition from inpatient rehabilitation units to their homes in rural communities. About that time, we conducted pioneering research on secondary health conditions that limit participation. That early work led to a robust program of research in rural health and disability. For rural people, health and wellness challenges such as access to healthcare and preventive medicine may be important factors in the development and progression of disability over time and space. We work to identify and address these barriers with our health and rural disability research agenda.

**The Rural Disability Penalty**

There are many questions to be answered about the dynamics of disability. How does one become disabled? How much of the disability experience is associated with personal factors, like impairment type, and how much is associated with the environment? Why do rural people experience disability rates that are different from urban people? To explore these questions, we...
have been collecting longitudinal data in 12 rural communities and have been analyzing data from the 2008-2016 Current Population Survey (CPS).

Looking at age and disability data, we found a rural disability penalty in both datasets. Using the CPS data, we found that rural people report higher rates of disability than urban people across all age groups. **Specifically, rural people report disability rates that are similar to their urban counterparts who are 10 years older.** Additionally, people of color report the highest disability rates and the greatest rural penalties. For example, we found that white rural men aged 65-74 experience disability rates 4.3 percentage points higher than their urban peers while non-whites of the same age group experience disability rates 7.2 percentage points higher.

**Transitory and Enduring Disability**

We made an additional, unexpected discovery during these analyses. **We found that the six questions to identify people with disabilities used across multiple US national surveys actually identify two different groups: those with enduring and those with transitory disability.** Generally, these data are assumed to identify people with enduring disability, which are used to make policy and programmatic decisions (Ward, Myers, Wong & Ravesloot, 2017). However, of those reporting a disability on the CPS, only 44% reported any of the six impairments consistently over time and 56% responded inconsistently—they reported impairments on one survey but not another. We also observed that a person’s health status, use of assistive equipment, and participation in the community change over time in a manner consistent with their responses to the disability identifier questions. Lastly, the rural penalty is evident for both those reporting enduring and transitory disability – Figure 3 “Rural and urban differences across age groups for reporting any transitory and enduring disability” shows these comparisons.

These findings suggest that when researchers, policymakers, and service providers address rural and urban differences in health and well-being, they need to consider that disability is dynamic and often progressive. Additionally, future work should be mindful of how disability and the environment intersect with gender and race, creating significant disparities for people of color in rural places.

**Rural Healthcare Access**

Recovery following hospitalization is critical for maintaining health. Unfortunately, hospital discharge planning does not always take into account the needs and limited health management resources of rural people with disabilities. Recently, we examined issues related to discharge from Regional Referral Hospitals to rural communities. We interviewed and surveyed people about healthcare and support service access in rural areas following inpatient treatment in an urban area.

The most common access barrier we found was distance from services, in part because discharge planners did not routinely inform their patients of rural community services available to them after discharge. Providers at regional referral hospitals are often unfamiliar with the resources available in a patient’s home community.
and are unable to make effective referrals. The transition back home is also problematic because discharge planning often does not adequately account for limited access to care in rural areas, putting patients at risk without proper supports. With funding from the Patient-Centered Outcomes Research Institute (PCORI), we developed, tested and disseminated the **Rural Options after Discharge—Model of Active Planning** (ROADMAP), a program to facilitate better access to healthcare and support services in rural communities following hospital discharge (Seekins, Boehm, Wong, Yearous, & Smith 2017).

Healthy Community Living

**Healthy Community Living** (HCL) is the family of health promotion programs we are developing and implementing through dynamic websites. HCL provides a continuum of programs to meet people of all ages at different stages of independent living.

- **Living Well with a Disability** is a program that helps participants set and achieve quality of life goals while learning about the important role health self-management plays in reaching those goals. It was first developed 25 years ago in collaboration with CIL partners and has now been implemented at over 250 community agencies across the country (Ravesloot et al., 2016).
- **Working Well with a Disability** is an extension of Living Well and was developed for people who are pursuing or maintaining employment. Working Well helps people address healthy work-life balance with health self-management activities to support their employment (Ipsen, Seekins, Arnold, & Ravesloot, 2006).
- **Community Living Skills** is designed for those who want to develop a solid independent living skills foundation. It is currently in development with CIL partners. CILs can use it on its own or as a precursor to Living Well.
- **Health My Way** is an app we are developing that will tailor content to a user’s needs as it coaches them towards health promotion decisions that are right for them. It provides an alternative for people with disabilities living in rural communities where cost and transportation can be substantial barriers to participation in onsite programs like Living Well.

III. Rural Community Living

Participating in the social fabric of your community is vital to quality of life. For this reason, RTC:Rural has examined the accessibility of rural environments and the ability of people to meet the demands of participating in rural community locations and events.
Home Usability and Community Participation

Life starts at home. Consequently, RTC: Rural is examining how challenging home environments can be barriers to community participation (Greiman & Ravesloot, 2016). By analyzing American Housing Survey data, we found that of rural households that include someone with a mobility impairment, 59% have a stepped entrance and 91% who live above the main floor in an apartment do not have access to a working elevator. In addition, lack of home modifications are a problem for rural people, where 60% of people with mobility impairments do not have grab bars in their bathrooms (Greiman, & Ravesloot, 2014). The high level of effort required to overcome these barriers at home impacts participation in the community. This is an increasingly serious problem as rural populations are on average older than those in urban areas and aging at a higher rate (Cheeseman Day, Hays, & Smith, 2016; Glasgow & Brown, 2012).

Partnering with the University of Kansas and CILs in Montana and Missouri, RTC: Rural is testing a home usability program that assists people with mobility impairments in evaluating and adapting their homes to decrease the effort needed for routine activities. Enabling consumers to find solutions and advocate for home-usability needs is empowering and potentially engages consumers to advocate for better home accessibility policy. We also expect that less effort exerted inside the home will translate into increased energy to participate outside the home.

Accessibility and Participation in Rural Communities

Putting forth the effort to leave home only makes sense if one’s community is accessible. RTC: Rural has developed two methods for assessing the accessibility of rural community infrastructure. One tool allows people to assess accessible features of business and civic places in their community (Seekins, Arnold, & Ipsen, 2014). The other tool uses Google Street View to assess community infrastructure including parking, path of travel, and business entrances (Seekins, Rennie, & Hammond, 2014). Using these tools, we found that 36% of rural businesses and civic venues were not accessible to wheelchair users, and only two thirds of places that were accessible had 70-100% of floor space that was wheelchair accessible (Seekins, Arnold, & Ipsen, 2012).

Participation in Rural Events

An important reason to leave home for people of all ages is to attend community events. In rural areas these events provide opportunities to connect with community members and expand options for increased quality of life. When we ask people with disabilities about their experiences at community events, they talk about needs for convenient parking and places to rest. They say they can attend some, but not all aspects of events due to access issues. These are not merely inconveniences, but lost opportunities in an environment where opportunities are already thin. We are...
currently creating guidelines to help rural community organizers better address access needs of the community. We have also engaged people with disabilities to become part of the solution through self-advocacy and community organizing.

**Self-Advocacy**

Learning to advocate for oneself is a basic skill for getting needed accommodations. RTC:Rural partnered with the Association of Programs for Rural Independent Living (APRIL) and youth advocates to develop and implement a self-advocacy training program for youth with disabilities. The [Advocacy Skill Building Toolkit](#) is unique in its use of improv activities to hone communication and public speaking skills, stimulate fast thinking, and encourage finding one’s voice. This allows youth to engage and apply advocacy skills in real life advocacy opportunities such as through letter writing and giving personal testimony (Beers, Olsen & Boehm, 2016).

**Rural Transportation**

Transportation is one of the primary issues people with disabilities in rural areas must contend with on a daily basis. The lack of accessible and affordable transportation options has direct impacts on rural community participation. Working with APRIL, RTC:Rural developed and tested the [Toolkit for Operating a Rural Transportation Voucher Program](#), which provides a model for how to bring together community members and resources to develop and operate a transportation system for people with disabilities in rural areas (Gonzales, Stombaugh, Seekins & Kasnitz, 2006).

**IV. Employment**

Our employment research uses systems-level approaches to improve employment opportunities and outcomes among people with disabilities living in rural places. We respond to identified rural barriers such as limited economic opportunity, choice, and access to services to develop and test employment and delivery options appropriate in resource-constrained environments. This has included research exploring self-employment as an alternative to traditional employment, engaging people with disabilities to lead rural economic development initiatives, and exploring strategies for improving Vocational Rehabilitation service delivery to rural consumers.

**Rural Self-Employment Opportunities**

We analyzed RSA 911 data that Vocational Rehabilitation (VR) agencies collect about consumers to explore self-employment rates and outcomes. We found that among those who left VR with any kind of employment outcome, approximately 2% were self-employed – a rate well below non-VR consumers who have disabilities (11.8%) and people without disabilities (9.7% in metro and 11.7% in non-metro). Rates of self-employment were higher for consumers in isolated and small rural communities, as compared to those in more urban locations, and self-employed consumers in all locations earned comparable...
wages to those in competitive employment arrangements (Ipsen & Swicegood, 2017). Together, these data suggest that self-employment is underutilized within the VR system.

To expand self-employment capacity within VR, we worked closely with the Utah State Office of Rehabilitation to develop policies, procedures and supporting materials to help counselors work more effectively with consumers who desire self-employment. This has resulted in the development of an online self-employment guide for use by counselors and consumers that will be tested in state VR agencies. This consumer-focused website will enable counselors and consumers to work together through the self-employment process, even when they are at a distance from one another.

**Premature Exit from the VR System**

The VR program spends approximately $365 million annually to serve consumers who disengage from services and drop out of the program. Premature exits are associated with worse economic outcomes when compared to those who stay engaged with the VR program (Hayward & Schmidt-Davis, 2003). We conducted a prospective longitudinal study of 355 VR consumers to understand factors that contribute to early drop out (Ipsen & Goe, 2016).

Almost half of respondents felt that progression through VR services was too slow. Additionally, satisfaction with VR services was positively associated with the pace of service delivery, rates of contact between the counselor and consumer both in person and via phone/email methods, and counselor qualities. This study set the stage for exploring ways to increase the pace and frequency of counselor/consumer contact during the VR process.

**Rural Contracted Services**

Receipt of job placement and development activities are important predictors of VR employment outcomes. Most VR agencies hire contractors to deliver many of these services such as vocational assessment, job development, and job coaching. Agencies generally pay contractors following two models: fee-for-service (hourly rates for bundles of approved services) and performance-based funding (lump sum payments for meeting specific benchmarks, such as job placement).

Many VR agencies have moved towards a performance-based reimbursement model to promote faster service delivery and increased employment results. A drawback of this model, however, is the tendency to focus on people who are more employable.

We conducted qualitative interviews with VR informants from 40 agencies to understand the specific benefits and drawbacks of various models to pay contractors and, in particular, implications for rural service delivery. Informants highlighted that performance-based funding created gaps in service availability in rural locations, in part because unpredictable funding streams are difficult for smaller contractors to shoulder. In a related study we conducted, 86% of agency informants who use contractors said there were gaps in services to rural locations that could delay case progression, and 75% agreed that incentives for serving rural cases were necessary to increase service availability in rural areas.

Understanding the pros and cons of different funding models helps VR agencies develop and implement hybrid solutions. One such model includes fee-for-service payments that are augmented with bonuses for placements, pacing, and job quality. We presented these findings to a national audience of VR representatives at our 2017..."
**State of the Science webinar**, which encouraged conversation and sharing about the best ways to promote job development in rural areas.

**Increasing Employment Outcomes through Telecommunications and Online Strategies**

Telecommunication strategies have the potential to bypass transportation barriers and open up new employment opportunities. Our survey of 1,432 VR counselors about their ability to counsel consumers on online job development tools found that nearly 40% of VR staff were blocked from using relevant social media sites at work, and among those that could, almost half felt unprepared to assist clients with certain online job search competencies (Goe & Ipsen, 2016). To address this gap, we developed and tested a series of five webinars focused on improving capacity to use social media. We found that counselors felt significantly more prepared to use online tools during the VR process after participating in our webinars (Goe, Ipsen, & Bliss, 2017). We also conducted a qualitative examination of VR social media policies to explore how states supported and provided clarification about using social media within VR practice. Only one policy acknowledged social media as a tool for consumer job search (Ipsen & Goe, 2017). This finding reinforced the need for VR to better incorporate online job-seeking strategies within practice.

Our earlier work in telecommunications (Ipsen, Rigles, Arnold & Seekins, 2012; 2013) led to the development of the [Telecom Toolbox website](http://telecomtoolbox.com), which provided strategies for counselors and consumers to use while communicating remotely. Since that time, we have expanded the Telecom Toolbox website to include the use of social media and online strategies to enhance job seeking.

**Looking Ahead**

In all our work, RTC:Rural connects research to practice and policy by developing evidence-based solutions that respond to the unique needs of people with disabilities living in rural communities. By conducting research across health, employment, and independent living domains, RTC:Rural uncovers relationships among personal and environmental factors that influence quality of life. We incorporate these relationships into our research agenda and utilize stakeholders to help us understand them. Our projects integrate disability stakeholder collaboration along every stage of the research continuum to develop solution-focused results that are both relevant and appropriate for intended rural audiences. This approach holds great promise for addressing emerging and persistent issues in rural communities, but must fit within the national agenda. Through a shared understanding of rural contexts, we will work to engage regional and national disability leaders in sharing understanding of how emerging policies impact rural communities and to help understand and prepare for changes coming in the future.

"In our rural area I serve 18 counties and an area of Minnesota that's actually been consistently losing population for the past 65 years. So we keep getting more rural and more rural. So there are some challenges there. We really have limited providers and limited availability for internal placement staff as well.

"[On the other hand,] there is a better sense of community, I would say, in my rural areas. The [job development] providers are really willing to work with us and you would think that it might be a bad thing they are the only show in town, but a lot of times it's a little bit easier to get together at the table and try to problem solve how are we going to do some of this work together."

– Mimi Schafer, Minnesota Vocational Rehabilitation Services
Photos

Unless otherwise noted, all photos are from our Healthy Community Living project, under which people from around the country have sent in photos of “Real People, Real Places” that have to do with living with disability in America.

References


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