CHAPTER 7 SUMMARY FINDINGS AND RECOMMENDATIONS

7.1 Conclusions and Findings From the Healthcare Cost, Coverage and Access Index (HCCA)

This report describes how the research team generated a county-level index of healthcare cost, coverage, and access, (HCCA) that can be replicated from data collected uniformly and annually by federal agencies. It shows that parts of the Appalachian Region, particularly in central and southern Appalachia, rank in the lowest percentiles nationally.

When applied to all counties in the nation, the HCCA showed that nearly half of Appalachian counties ranked below the 40th percentile. Appalachia also ranked low on the healthcare resource (HCRA) and healthcare cost components (HCC). It ranked high on health insurance coverage (HIC). Even on that measure, certain states have significant numbers of counties that ranked in the lowest quintile. The region's biggest disparity challenge lies in healthcare reimbursement (HCC). Half of Appalachian counties ranked in the lowest national quintile. Healthcare resource access (HCRA) is less a problem in the Appalachian Region on average, but the region has more than 176 counties that ranked below the 40th percentile. Thus, barriers associated with travel for care are still a reality in the Appalachian Region.

With the exception of the insurance coverage component, HIC, the HCCA measures correlate significantly with the health outcomes measure, years of potential life lost from preventable causes under age 75 per 100,000 population (YPLL_75). Healthcare cost was inversely related to YPLL_75, with low cost areas having high premature mortality.

When the research team controlled for either socioeconomic status (ARC Economic Distress Index), or for persistent poverty, the HCCA could account for variation in the YPLL_75 from one county to another. The ARC Economic Distress Index alone is a good predictor of YPLL_75 nationwide and in Appalachian states, but less so in Appalachian counties; whereas the HCCA Index was a good predictor in all geographies. This suggests a relationship between healthcare cost, coverage and access that is independent of socioeconomic status.

The proposed HCCA and its component indices can be a useful tool for measuring progress in development of healthcare access in the Appalachian Region. Including an additional measure of health outcomes, the YPLL_75, in future measures could show the extent to which advances in cost, coverage and access have been accompanied by improvements in health status.

7.2 Implications of Health Reform

Federal healthcare reform, the Accountable Care Act (ACA), will change healthcare delivery systems and payment structures. Health reform will bring significant increases in Medicaid coverage in the Appalachian Region, adding at least 30 percent to most state eligible pools. Low reimbursement and the additional strain of increased coverage on state budgets raise the question of whether improved health coverage will change true accessibility for residents. Moreover, data in this study show limited correlation between health insurance coverage and good health outcomes in areas with high poverty.

Health reform legislation launched several national initiatives involving billions of dollars in federal expenditures to improve healthcare access and provide cost savings. Some are grant funds, involving short term subsidies for service delivery changes with hopes that successful programs will find funding sources. Others involve structural change in reimbursement formulas. Though grant programs direct significant funds to universities and some to healthcare providers, the major healthcare funds flow is in the reimbursement associated with Medicare and Medicaid entitlement programs. These funds follow the user, hence should spread funding across a broad geography.

The largest initiative involving entitlement programs resides at CMS in the Center for Medicare and Medicaid Demonstration Programs and Center for Medicare and Medicaid Innovation (CMMI) pilots. CMMI is charged to "research, develop, test and expand innovative payment and service delivery models that will improve the quality and reduce the costs of care" for patients covered by CMS-related programs.

CMS demonstration sites are receiving significant funding to invest in infrastructure and programmatic changes that will improve communication among health providers and improve funding for primary care. Early reports indicate that such communication and primary care investment can reduce healthcare spending as much as 30 percent. If so, success of this program could reverse or, at best, confuse any conclusions about total health expenditures.

Health reform statutes also required the U.S. Department of Health and Human Services/ Health Resource and Service Administration (HRSA) to re-examine the way it defines underserved areas. A negotiated rulemaking committee to review criteria for the designation of medically underserved areas and health professional shortage areas is charged with this responsibility.

7.3 Recommendations

7.3.1 Policy Issues

Healthcare policy issues that merit ARC attention must affect multiple states and have achievable solutions. Even with limited resources, ARC could do much for the region by working with HRSA and CMS to ensure access to Rural Health Clinics throughout the region and by advocating for regional adjustments to the geographic eligibility criteria in central and southern Appalachia.

If proposed changes to the CMS hospital Geographic Wage Index do not include special provisions for communities in rural central and southern Appalachia, access provisions in the ACA reform statute may not reach reality there, because providers will not be able to afford the tools required to optimize health reform programs.

In fact, several federal agencies are key players. One, CMS, directly affects sustained payment for services. Health reform research studies show improvements in health outcomes most likely to occur among persons using care provided in integrated healthcare delivery systems aligned with primary care medical homes.

With its policy position, ARC has opportunities to represent a regional voice in several areas of healthcare reform:

- Advocating for Geographic Wage Index change, through CMS, MedPac, or Institute of Medicine;
- Advocating for Rural Health Clinic expansion through CMS Center for Medicare and Medicaid Innovation and HRSA;
- Communicator of successful efforts to address care management for Medicare/ Medicaid dual eligibles;
- Champion of expanded FTC broadband access, which is so essential for remote area healthcare delivery;
- Communicator of local success with information technology and community-based initiatives that extend the reach of specialists into remote areas;
- Continued support for initiatives to develop the healthcare labor force, including entry-level positions inside the region;
- Participant in HRSA definition of underserved areas; and
- Advisor on CMMI Innovation, particularly programs that will pay for extended practice providers like community health workers and dental hygienists.

7.3.2 Participate with Institute of Medicine Committee to Modify CMS Geographic Wage Index

The HCCA Index cost component is the unmodified CMS hospital Geographic Wage Index. Data for the Geographic Wage Index are collected from cost reports filed by hospitals. However, Medicare applies it to adjust payments and, by reference to Medicare, other payers use it for their payment baseline. At least four national committees are reviewing the Geographic Wage Index, including the Institute of Medicine, the Centers for Medicare and Medicaid, the Research Triangle Institute and MedPac. Many are calling for changes in the way this controversial measure is calculated and applied. High indices boost local payments and low indices pull them down.

In June 2011, the National Institutes of Medicine (IOM) published its first report on the Geographic Wage Index[91]. The report explored the structure of two indices used by CMS to adjust Medicare payments to allow for geographic variations in cost. The first is the hospital Geographic Wage Index. A second index is applied to physician service payment. Both hospital and physician wage indices are applied within state boundaries. Both address the labor component of healthcare costs. The physician index is the most simple, for in many states, it is uniform statewide. In some states, specific metro areas have a different index. The hospital Geographic Wage Index is much more complex, varies significantly within and across state lines, and has been politically modified with carve out exceptions since its introduction in 1965.The IOM June report observed some structural problems with the hospital Geographic Wage Index.

- Some counties have no hospital, so they are represented by the nearest hospital
- Areas within states are aggregated to two groups, individual CBSA's and "Rest of State"

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[91] Edmunds, Margaret and Frank A. Sloan, Editors, Geographic Adjustment in Medicare Payment Phase I: Improving Accuracy. Committee on Geographic Adjustment Factors in Medicare Payment. Board on Health Care Services. Institute of Medicine of the National Academies. Washington, D.C. June 1, 2011

- Communities on the boundaries of CBSA's are often relegated to a lower cost area when they are, in fact, paying CBSA wages
- Some labor costs are becoming uniform nationally; the index should be tailored to reflect the costs that actually vary locally
- Variation in the index is too broad. With 1.0 as the national average, the lowest index is 0.7 and the highest is 1.65. The actual differential should probably be 0.8 to 1.2[92]
- Reclassifications are common, made possible by special exceptions for:
    - Sole Community Hospital
    - Rural floors
    - Frontier Index
    - Special petitions based on proof of labor migration patterns
- Reclassifications more often reflect political considerations, than uniformly reflect national labor cost differences.
- Boundaries do not truly reflect labor market boundaries
- Data on the cost reports are self-reported, thus have limited transparency

The IOM Committee agreed that labor costs differ between metropolitan and non-metropolitan areas, with higher wages prevailing in metropolitan areas. However, it recommends more focus on the price of labor in each market that is beyond the control of the hospital. It notes that the cost reports are prone to reflect a hospital's own decisions about wages.

The IOM has recommended a number of changes:

- Use one index. Do not separate physicians from other providers.
- Use Bureau of Labor Statistics wage data for a fixed, defined set of occupations
- Standardize all geographic areas to metropolitan and non-metropolitan
- Use data from all healthcare employers, not just hospitals
- Develop a weighting system for all types of healthcare workers to reflect the actual mix of different healthcare professionals in the labor force. The IOM recommends that the weights be derived from the hours each profession works in the specific type of healthcare facility: hospital, hospice, home health agency, etc.
- Adjust the index nationwide to account for commuting patterns. This would smooth the differences at the boundaries of metropolitan statistical areas. It would likely boost payments for some rural areas.
- Maintain MSA and statewide non-MSA boundaries.

These are recommendations, and will likely take years to translate to national policy. However, Congress did mandate that a report on the Geographic Wage index be produced in 2011. No doubt, many of these recommendations will be seriously considered, and built into new amendments to the Medicare and Medicaid statute.

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[92] Interview with RTP staff to the IOM Committee. Kathleen Dalton, Ph.D. June 1, 2011.

7.3.3. Support Regional And Local Healthcare Labor force Reforms And Technology

ARC has the structure to integrate health resource planning into overall comprehensive planning. As a member of the White House Rural Council, ARC can advocate for policy change.

ARC has several opportunities in workforce development, and in technology evolution.

> *"ARC's primary care development program in the 1970's was one of the best things that happened in northeast Mississippi. People from different communities got together and shared what they were learning and trying. Political party and racial lines disappeared".*
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> *-Reece Dixon, State Legislator Noxubee County Mississippi, 2011.*

- Successful health workforce/ health resource developments that take place in one state or within the ARC states can be diffused more effectively across regional and state boundaries when sponsored by the ARC. Similarly, failures may not spread if ARC helps tell the story or the "lessons learned".
- Demonstrations in one state or community can be shared quickly among local decision makers and may not have to wait for dissemination through the peer review literature. CMS is encouraging this approach as a part of its "Rapid Cycle Improvement Initiative", which requires extensive documentation and quick feedback facilitated by a developed electronic contact system.
- Sound evaluation and good documentation of successes and failures in one area can be of use to health program planners in another area within the region and nationally, as ARC participates in critical work sessions with other federal health agencies.
- ARC's long history with the J-1 visa program to bring physicians to underserved areas should be documented and evaluated to determine its possible utility in addressing shortages expected as health reform emerges. In several parts of Appalachia, where communities worked with ARC to set high standards and emphasize retention strategies, it has been an excellent source of highly qualified physicians, many of whom stayed.

Labor departments and workforce intermediaries are increasingly recognizing that healthcare is one of the few current growth industries. Even with efforts to reduce total costs, innovative and expanded roles for front line, entry health workers will exist across the care delivery spectrum in areas like emergency medicine technicians, health behavior community workers. Opportunities for entry include:

- Basic education with a health focus in secondary and community college education (numeracy, literacy, computer skills);
- Career ladder development to permit entry level workers and returning military to convert skills acquired to credits in academic professional programs, eventually reaching licensed professional levels; and
- State loan repayment programs.

ARC should also systematically assess how its general economic development programs may have affected health and health systems, for example, by increasing physician recruitment/ retention, reducing emergency and routine travel time, increasing health literacy, etc.

A wide array of mandates and opportunities are associated with the rapid innovations occurring in health information technology, payment initiatives and healthcare labor force; many of which are enjoying support from federal agencies. Using its cross-agency relationships, ARC can facilitate access to these by providers in the region, and, act as an intermediary to assure that regional providers are not unduly hampered by the mandates.

Expanded requirements for information technology are exceeding the healthcare industry's capacity to absorb it. Capital costs associated with electronic medical records, evidence based medicine, pharmaceutical protocols, and other evidence based medicine documentation, and electronic review of community health data, are almost as costly as the hospitals and clinics that house the providers. This represents an enormous hurdle in both capital infrastructure and labor force training for providers who are already facing economic challenges.

7.3.4 Advocate for Low Resource Areas

All 13 states have loan repayment programs for diverse health professionals in the medical, dental, nursing and allied health areas. Most are cooperatives with the National Health Service Corps, and funded through the Health Resources and Services Administration (HRSA). The definition of Medically Underserved Areas by HRSA excludes many communities from access to these benefits. Many ARC counties can benefit from these programs, and ARC could play a role in creating an Appalachian exception to include counties that have high YPLL_75 scores and/or low Health Care Resource Availability scores but may not meet HRSA criteria. Better collaboration and information sharing between programs across state line might lead to improvements, especially in boundary communities.

There are many federal loan repayment programs, e.g., National Health Service Corps loan repayment program, nursing loan repayment programs, geriatric career incentive rewards, pediatric specialist loan repayment program, public health workforce loan repayment program.

Funding associated with the 2010 stimulus legislation, American Recovery and Reinvestment Act (ARRA), dramatically expanded the number of National Health Service Corps (NHSC) clinicians deployed throughout the country. Documenting how much ARC counties were affected by these federal resources and what impact they are likely to have on long term retention is important. An assessment of the extent to which ARC states and communities have made use of opportunities for the health workforce and health resource programs initiated or expanded through health reform, via the Affordable Care Act, would tell how well and quickly the region responds to short-notice funding opportunities.

Continuing the ARC role of informing the region's communities about new opportunities (and challenges) in Federal funds availability helps the region to compete with better resourced companies and providers outside the region.

Private philanthropies have been catalytic in drawing attention to the special needs of the region. Because they are closer geographically, the regional foundations like Benedum, Kate B. Reynolds and the Foundation for Healthy Kentucky offer the strongest promise for start-up initiatives. Funding by these foundations often provides a platform from which regional providers can advance to larger scale funding from foundations like the Robert Woods Johnson Foundation, which regularly launches initiatives aimed at healthcare delivery improvement. ARC working with these foundations has helped many in the region and could be expanded as some of these foundations begin to work collaboratively.

Continued advocacy by ARC for expansion of opportunities to qualify for Rural Health Clinic designation would make low-cost primary care access even more available in the Appalachian Region. One Appalachian state, Maryland, has no Rural Health Clinics in 2011; New York and Ohio have few.

Telemedicine offers significant advantages to remote regions, and funding programs cover both infrastructure and service development; payment for services is still in developmental stages. ARCs experience in economic development makes it uniquely positioned to encourage novel health workforce development programs. Ideally, such programs should have multiple goals:

- Enhance population health and improve community health outcomes;
- Contribute to "bending the cost curve" of healthcare by shifting some healthcare tasks "downward" from more expensive providers (e.g., physicians, RNs) to lower cost frontline workers (e.g., patient care technicians and community health workers) to intervene before problems become expensive to solve; and
- Create stable jobs and career ladders for those frontline workers who can be recruited from unemployed, or underemployed local workers, or youth who might otherwise leave the region, or returning veterans whose skills are not formally recognized by credential boards.

7.3.5 Actively Engage with CMS Center for Medicare and Medicaid Innovations

The Appalachian Regional Commission has an opportunity to represent Appalachia's interests in an advocacy role with CMMI. CMMI has significant authority and funds to try innovative approaches to care delivery and extract lessons learned directly to new payment methods. Its mandates to increase access and reduce total healthcare costs fit well with the ARC mission. CMMI began announcing programs in 2011 and will solicit ideas and organize funding initiatives from 2012 through 2020. The program is ideally suited to the Appalachian Region; it requires state and healthcare provider participation and would put ARC and participating states front and center with some of the program's strategic goals. In one of the first initiatives, CMS will subsidize programs that develop and sustain employment for extended practice providers and entry-level workers like community health workers.

Listed among its intended targets are programs that reflect the ARC Health Demonstration legacy:

- Multi-Payer Advanced Primary Care Practice Demonstration
- Comprehensive Primary Care Initiative
- Partnership for Patients
- State Demonstrations to Integrate Care for Dual Eligible Individuals
- Demonstration to Improve Quality of Care for Nursing Facility Residents
- Financial Models to Support State Efforts to Coordinate Care for Medicare-Medicaid Enrollees

One of the key reasons for the project is described as the "Need to identify and test new ways to create the workforce of the future that will deliver and support new care models", for example:

- New roles and skills for existing health professionals,
- New types of workers to support care transformation, and
- Team-based models to better utilize a mix of health providers.

7.4 Areas for Further Study

The region can benefit from pushing the boundaries in most dimensions of this report. Although most Appalachian residents have health insurance, what is covered may be limited. And, nationwide, the amount of care covered by insurance is declining. In some areas, a person eligible for Medicaid has better coverage than a person with high deductible private insurance. A new measure that better reflects the depth of coverage will be needed to truly understand distinctions in the value of health insurance coverage from one geographic area to another. Standardization of coverage is a national issue that will require participation of both the measurement agencies at CDC, AHRQ and HRSA, and the payers at CMS and private insurance. It should get substantial attention as CMS, the states and the insurance industry work out the terms of the ACA-mandated health insurance exchanges.

Beyond changes to the Geographic Wage Index, healthcare payment system reform will profoundly affect the Appalachian Region. Initial attempts to curb high use may actually hurt areas of the region that benefit from the economic impact of healthcare spending. It will be important for the region's healthcare industry to keep pace with rapid cycle innovations emerging from health reform initiatives; and to participate in evaluations of both beneficial and adverse impacts on the region.

The region's rich history of effectively using alternative health professionals is ready for career path development and inclusion in payment programs. A baseline report describing the many programs that are working effectively under grant subsidy would accelerate their inclusion in national health reform payment programs.

The cost of dual eligibles in Appalachian counties was not explored in this report, nor was the state burden of long term healthcare services. Both represent a large part of the state budget burden for healthcare and a review of successful efforts at reducing these costs while increasing health status would also be useful to Appalachian states.

Block grants for Medicaid, which are under consideration as a way to give states more flexibility and put defined limits on federal contributions, may or may not help Appalachian states. A review of proposals against current federal payments to states would be helpful.