
ILLINOIS CRITICAL ACCESS HOSPITAL PROGRAM: *Learning From the Past, Building the Future*

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ABSTRACT

Critical access hospitals (CAHs) are important in rural areas not only in terms of access to health care, but also as local sources of employment, often representing one of the largest employers in a region. The CAH designation was created by Congress through the Medicare Rural Hospital Flexibility Program (Flex Program) in 1997, allowing small rural hospitals to be licensed as CAHs and offers grants to state governments to strengthen rural health care infrastructure. Since the Flex Program's inception in 1999, Illinois CAHs have been able to improve services and are more financially stable. However, some smaller hospitals may still face the risk of closures or service reductions due to budget cuts, reimbursement issues, and demographic changes. Closures, or even serious cutbacks in services, would have major repercussions for rural health care.

The Illinois Critical Access Hospital Network (ICAHN) has proactively addressed the emerging issues of health system change through research and collaboration. Since 2006, ICAHN and Northern Illinois University's Center for Governmental Studies (CGS) have partnered on several issue papers to highlight the economic impact, quality of care, collaboration, and community wellness efforts of CAHs. In addition, ICAHN is working with rural hospitals on new delivery systems. ICAHN has also benefitted from collaborations with, and input from, the Illinois Department of Public Health's Center for Rural Health. The 15-year CAH program milestone is a chance to reflect on the program, explore current and emerging issues and challenges in rural health care, and look ahead to the future of CAHs and the CAH program in Illinois. Several important themes emerge in this report:

- » 47 of 84 rural counties had elderly proportions at least one-third higher than the state of Illinois, placing even more pressure on small rural hospitals to provide essential services for a less mobile population. This situation **increases the importance of local access to high quality health care services for population retention.**
- » Health care is a major industry for local employment, and in 2013 represented 15.5% of the employment in rural counties statewide, compared with 13.5% for the state. **Health care as an industry has grown in importance in rural areas during the past decade. In fact, health care is the first or second largest employment sector in more than two-thirds of rural Illinois counties (68.2%).**
- » CAH administrators are evaluating current services and examining alternative delivery formats in response to the current and future needs of their communities, regardless of changes in legislation. **Collaboration allows CAHs to focus scarce funding on services and specialties which are in great need in their communities yet are not offered by other entities.**
- » CAHs are most interested in **adding services such as community wellness centers, behavioral health practices, and hospitalist programs, showing responsiveness to the changing needs of their service population.**
- » Most respondents with hospitalist programs reported increases in provider and patient satisfaction and hospital quality outcomes.
- » Attracting and retaining staff is vital and CAHs recognize the importance of **creating a positive work environment that involves both the hospital and the larger community.**
- » In 2013, Illinois CAHs **started or completed nearly 100 capital projects** to improve technological capabilities, patient services, community wellness, rehabilitation or construction of hospital facilities, and other initiatives in responding to changing service demands.
- » **More than half of CAH survey respondents had successful quality improvement demonstration projects in the past three years**, including the Hospital Engagement Network Programs, Project Better Outcomes by Optimizing Safe Transitions (Boost), and Project Re-Engineered Discharge (RED).
- » CAHs have had significant economic impacts statewide, especially in communities where CAHs are located. **Statewide, CAHs support 10,157 full-time equivalent (FTE) workers, earning \$578,004,218, or an average salary of \$56,906 per job.**



INTRODUCTION

Nearly 1 in every 9 people in Illinois and almost one-fifth of the U.S. population live in a rural or non-metropolitan areaⁱ. Rural hospitals provide essential health care services in rural areas and often are the only health care delivery system in communities already facing barriers to accessing services, from long travel distances to quality care and lack of specialty services available. Rural hospitals are important not only in terms of access to care, but also as local sources of employment, often representing the largest employer in a region.

In some of the most rural areas of the country, it is critical access hospitals (CAHs) that offer these much needed health care services to rural residents and provide employment to hundreds of people. The CAH designation was created by Congress through the Medicare Rural Hospital Flexibility Program (Flex Program) in 1997. The Flex Program which officially began in Illinois in 1999, allows small rural hospitals to be licensed as CAHs and offers grants to state governments to help implement initiatives to strengthen rural health care infrastructure.ⁱⁱ

In order to qualify as a CAH, a hospital must be located in a rural area and be more than 35 miles from another hospital (15 miles by secondary roads or in mountain terrain) or had been certified by the state before January 1, 2006, as being a necessary provider of health care services. In addition, the hospital must have an emergency room that is open 24 hours a day and 7 days a week using either on-site or on-call staff. A CAH is normally limited to 25 inpatient beds used for either inpatient or swing bed services (changed to 26 beds). CAHs are also subject to a 96-hour (4-day) limit on the average length of stay.

When the program started in 1999, the primary focus was on (1) development of an initial State Rural Health Plan (SRHP); and (2) conversion of eligible health care facilities to CAH status. In Illinois, the implementation of the CAH program began with a collaboration between the Illinois Department of Public Health (IDPH), the Illinois Health Association (IHA), and rural Illinois hospitals. In March 1999, IDPH released a report, *Illinois Rural Health Plan: Rural Health Access and Critical Access Hospitals*, focused on Illinois CAH conversion and the need for the program,

with an update in 2002 that included 19 hospitals successfully transitioning into CAHs. The hospital data showed improvements in financial stability, emergency services, and rural quality of care since designation.ⁱⁱⁱ In addition, the report stated that many of the 19 rural hospitals in the inaugural class of CAHs would have faced elimination of services or closures if not for the program.

A November 12, 2014 article in *USA Today* reported that since the beginning of 2010, 43 rural hospitals—with a total of more than 1,500 beds—have closed nationwide. The pace of closures has quickened: from 3 in 2010 to 13 in 2013, and 12 already this year.^{iv} While 15 years have passed since the inception of the program, and Illinois CAHs have seen much improvement, they still face the threat of closures or service reductions due to budget cuts, reimbursement issues, and demographic changes, all of which could have devastating repercussions for rural health care.

Since 1999, the health care landscape has changed enormously and rural hospital staff currently encounter challenges in the areas of technology, health policy, patient expectations, and shifts in payment models, among others. Most recently, the Patient Protection and Affordable Care Act (PPACA) proposed many initiatives to improve health care in the U.S. that have affected rural hospitals both positively and negatively. Overall, the PPACA mandated that hospitals:

- » Create or expand initiatives aimed at improving access to services such as urgent care and other unmet community health needs;
- » Engage rural communities better in their own health care management (population health);

ⁱIn the 2010 Census, the Bureau of the Census classified as urban all territory, population, and housing units located within urbanized areas (UAs) and urban clusters (UCs), both defined using the same criteria. In general, this territory consists of areas of high population density and urban land use resulting in a representation of the 'urban footprint.' Rural includes all territory, population, and housing units located outside UAs and UCs.

- » Work in collaboration with other community agencies as the ‘hubs’ of rural health care; and
- » Create transitions of care coordination with urban health care system alignment.^v

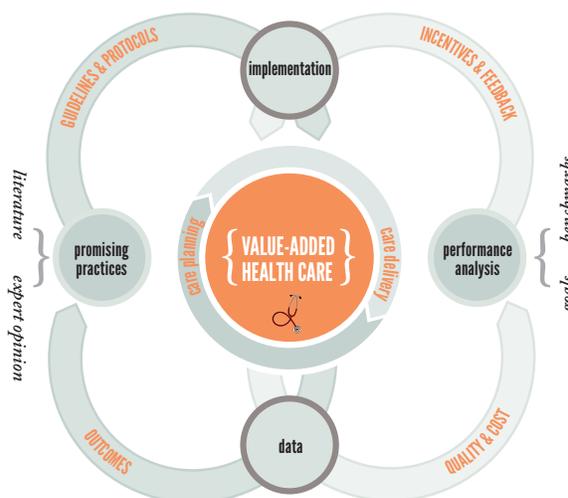
These challenges are continuously being addressed by Illinois CAH administrators and staff, while also focusing on their mission to provide the highest level of care to their patients and service areas often with fewer resources and more pressure than their urban counterparts.

The Illinois Critical Access Hospital Network (ICAHN)² has proactively addressed the emerging issues of health system change through research and collaboration. Since 2006, ICAHN and Northern Illinois University’s Center for Governmental Studies (CGS) have partnered to highlight the economic impact, quality of care, collaboration, and community wellness efforts of CAHs in Illinois to illustrate the positive impacts that CAHs have on rural Illinois.

In early 2012, ICAHN executive director Pat Schou convened a Vision Committee including chief executive officers from Illinois CAHs to discuss issues facing rural health care organizations as implementation of the PPACA began. The Vision Committee identified three top priorities to address in a series of issue papers: quality of care initiatives, the growing importance of collaboration for small organizations, and preparation for population health management and identification of new revenue models. ICAHN produced a series of these issue papers aimed at helping policy makers understand the unique conditions in rural Illinois affecting the provision of health care and providing examples of successful strategies used to address these critical issues. The papers also identified barriers that complicate the replication of successful urban-based models of health care service expansion.

In April 2012, the first issue paper published by ICAHN, *Illinois Critical Access Hospitals: Enhancing Quality of Care in Rural Illinois*, demonstrated that CAHs are essential to the effective delivery of rural health care and are an important safety net for rural patients

by providing high-quality services in a challenging environment. The research showed that CAHs provide a high-value, affordable option for rural patients and rank high on several national health measures including patient outcomes and patient satisfaction indicators.



In addition, many Illinois CAHs have been involved with the Flex Program’s Medicare Beneficiary Quality Improvement Project (MBQIP) focused on improving the quality of care provided in rural CAHs through increasing the voluntary reporting by CAHs of relevant quality data. Voluntary reporting of data was identified in the 2012 *Enhancing Quality of Care* report as a challenge, but through increasing the number of CAHs reporting data, as well as defining and reporting rural-relevant quality measurements, CAHs can adopt proven clinical delivery models. In turn, CAHs can drive quality and performance-based value with better, more accurate data analysis.

Released by ICAHN in January 2013, the second paper in the series, *Illinois Critical Access Hospitals: Collaborating for Effective Rural Health Care*, surveyed CAH staff in six Midwestern states and described effective approaches to achieving successful rural collaboration. The research found that some challenges are too complex, or the solutions too costly, for one organization to manage alone, reinforcing the importance of collaboration. Fortunately, many CAHs already represent small-scale integrated systems

² ICAHN is a not-for-profit 501(c)3 corporation established in 2003 for the purposes of sharing resources, education, promoting efficiency and best practice and improving health care services for member critical access hospitals and their rural communities. ICAHN, with 53 member hospitals, is an independent network governed by a nine-member board of directors. See www.icahn.org.

because they provide emergency and acute care services; offer rehabilitation services; most often employ the physicians; and provide or have relationships with local long-term care, home health, and hospice services.

Across the nation, CAHs and their affiliated organizations have found solutions to fund capital improvements, obtain access to qualified staff, and begun to manage the population health of their service areas. As the U.S. transforms its health care delivery system, CAHs and other rural health organizations anticipate even greater demands and recognize the need to understand and learn how collaboration can enhance current and future service delivery as an option for long-term sustainability and viability.

The third report in the series on population health management released in October 2013, *Illinois Critical Access Hospitals: Managing Healthy Communities in Rural Illinois*, was guided by a panel of CAHs from several regions in Illinois. The panel examined population health model (PHM) challenges, alternative revenue models, and promising practices. Six major recommendations stemmed from panel discussions and the subsequent CGS-ICAHN report, many of which aligned with initiatives proposed in the PPACA. Each of the six recommendations necessitate a continuous improvement process and CAHs throughout Illinois are successfully implementing demonstration projects and sharing best practices.

RECOMMENDATIONS FOR MANAGING A HEALTHY COMMUNITY

1. Start in your own backyard;
2. Take health promotion activities beyond the confines of the hospital;
3. Consider a regional approach to assessment and planning;
4. Public health is really the public's health;
5. Strive for the Triple Aim and collective impact; and
6. Identify upstream, midstream, and downstream strategies, engage partners.

It has been 15 years since the first CAH was designated and this milestone is a chance to reflect on the CAH program, explore current and emerging issues and challenges in rural health care, and look ahead to the future of CAHs and the CAH program in Illinois.

ICAHN, along with financial partners Lancaster Pollard, Murray Company, Eide Bailly LLP, Nixon Peabody (formerly Ungaretti & Harris LLP), and Shive-Hattery, collaborated with CGS to gain a better understanding of major demographic, economic, and policy changes affecting rural health care and how CAH designation has benefited CAHs in Illinois. CGS reviewed several relevant information sources in addition to the issue papers. First, materials from the original CAH implementation program in 1999 were studied with data comparisons to the current situation. Second, in August 2014 CGS and ICAHN sent an online survey covering several topics, to the 51 Illinois CAHs and two hospitals currently in transition to become CAHs. Survey topics included:

- » Profiles of Illinois CAHs including hospital characteristics, financial conditions, current services provided, and future service demands that have been identified;
- » Short- and long-term capital needs;
- » Changes in management decision processes and measurement techniques for activities, and outcomes since 2006;
- » Innovative approaches to diversifying revenue streams and outpatient services added, expanded, eliminated, etc.;
- » Management and visioning efforts of CAHs including collaborative partnerships, and changes in staffing; and
- » Future plans to adjust to recent changes in health care legislation affecting care coordination, population health management techniques.

In total, 21 hospitals completed the entire online survey (40.0% response rate) and the results are discussed throughout the report when relevant. In addition, CGS obtained inputs from an ICAHN steering committee, IDPH's Center for Rural Health, financial partners, and CAH administrators to gain insights into how the CAH designation has affected hospital management approaches. The next section discusses major demographic trends in rural Illinois during the last 15 years and examines how CAHs may have been affected.

15 YEARS AND COUNTING, DEMOGRAPHIC TRENDS IN ILLINOIS

The state demographic profile in the IDPH’s *Illinois Rural Health Plan: Rural Health Access and Critical Access Hospitals* report (1999) revealed the number of Illinois rural residents was on the rise and unemployment was steadily declining. However, since 1999, rural areas in Illinois and other states have experienced many changes that affect delivery of high quality health care services.

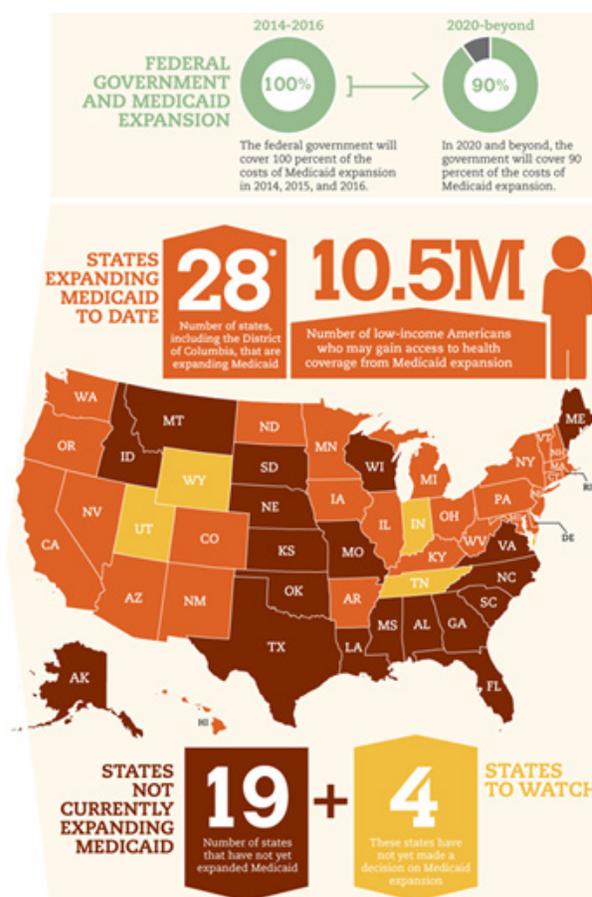
Not the least of these changes is shifting population trends. Rural areas, in many cases, have either lost population or have very slow growth projected in the next several decades. For instance, population in the average downstate non-metropolitan county decreased 2.6% between 2000 and 2010. This trend challenges rural health agencies to find new ways to deliver services in more cost-effective ways. CAHs have worked diligently to identify and implement new approaches, sometimes on a regional level.

One similar trend from IDPH’s *Illinois Rural Health Plan* report, is growth in the population 65 years and older in rural areas. In 1995, 47 of 84 rural counties³ had elderly proportions at least one-third higher than the state of Illinois. Today, population projections for rural Illinois suggest continued population declines but with relatively large expected increases in residents 65 years of age and older. Any growth in the number of these residents will place even more pressures on small rural hospitals to provide essential services for a less mobile population. This trend will increase the importance of local access to high quality health care services for rural communities to retain populations.

The demographic trends also affect the number of Medicare and Medicaid patients that will use CAHs. IDPH’s *Illinois Rural Health Plan* report states that in 2003 Illinois hospitals received \$.37 for every \$1.00

spent delivering outpatient care and \$.83 for every \$1.00 spent delivering inpatient care for Medicaid patients. This means that 93.0% of Illinois hospitals were paid below cost for Medicaid patients. Clearly this was, and is, not a sustainable model for care. Illinois is involved in the Medicaid expansion and nearly every hospital in Illinois, rural or urban, is experiencing an increase in the number of Medicaid cases (Figure 1).

FIGURE 1. MEDICAID EXPANSION



Illinois rural areas, in many cases, are losing population or are projected to have slow growth in the next several decades.

³ The definition of rural in IDPH’s *Illinois Rural Health Plan* report differs from the definition used by the U.S. Census Bureau when calculating certain statistics. In addition, the definitions have changed since the report in 1999, therefore some discrepancies exist in the number of rural counties in Illinois.

This is especially troublesome since prospective payment hospitals will experience reduced payment increases, and most acute care hospitals (including CAHs) will receive lower Disproportionate Share Hospital (DSH) payments due to the PPACA.^{vii}

Along similar lines, access to health care is an important component in local quality of life which, in turn, is often cited as important in attracting and retaining businesses. A productive work force requires access to health services thereby giving businesses a vested interest in locating to places with high quality and affordable health care access. Since employment opportunities are vital to the future sustainability of rural places, CAHs play a strong role in maintaining and promoting local economies. Viable and prosperous CAHs are also important to rural areas for other reasons, including the fact that health care is major industry for local employment. On average, 14.0% of total employment in rural communities nationwide is attributed to the health sector.^{viii} In 2013, the health care industry represented 15.5% of the employment in rural Illinois counties, compared with 13.5% for the state as a whole. In 2000, the combined health care and social assistance industry was 10.5% statewide and 13.3% in rural counties. This illustrates that health care grew in importance during the past decade even with the Great Recession.

At a more detailed level, health care was the largest employment sector in 22 of the 62 rural Illinois counties in 2013. In addition, health care was the second largest employment sector in 21 rural counties, meaning health care is the largest, or second largest, employment sector in more than two-thirds of rural Illinois counties (68.2%). The fact that medical professions typically pay above average wages in rural areas only reinforces the

importance of maintaining vital and affordable local health care services. CAHs are crucial not only to the health and vitality of rural areas but also to the livelihood of some residents who, otherwise, could be forced to relocate to more metropolitan settings for comparable employment. This out-migration would then lead to further population declines.

Thus, CAHs are important to the future of rural Illinois both as a major source of employment as well as providing crucial services to two important growing population segments: residents 65 years and older and those between 35 to 44 years of age. The specific services needed by these two groups differ, and their availability locally is important in stabilizing rural populations. The economic effects of some medical agencies paying above average wages is examined in more detail in the impact analyses when direct, indirect, and induced employment resulting from CAH operations are presented.

CAHs must continually adjust to changes such as client needs, technology advances, state and federal requirements, and local economic conditions. Responses to these shifts include efforts to provide services through collaborative arrangements with other health agencies, different pricing strategies, and alternative delivery systems. These trends are examined in the survey of CAHs described later in this report. The importance of CAHs to their communities as rural health service providers cannot be overemphasized; similarly, CAHs as economic engines and partners in economic development in their communities must be highlighted. The next section profiles Illinois CAHs since the beginning of the program followed by a discussion of the economic impact CAHs have on their communities.

In 2013, the health care industry represented 15.5% of the employment in rural Illinois counties and was the first or second largest employer in two-thirds of rural Illinois counties.

In addition, 6 of the 10 government-owned CAHs in the survey reported no plans to join a health system in the next three years, and neither do 7 of 12 independent, non-profit CAHs. This may be a good sign if it means these hospitals believe they are

self-sustaining and/or in a solid position to continue providing quality care in their service areas. This positive outlook, however, could be affected by changes in reimbursement or new legislation that may require more collaboration (Figure 3).

FIGURE 3. HOSPITAL CHARACTERISTICS

OWNERSHIP TYPE	AVERAGE FTES (#)	RESPONDING CAHS (#)
All Responses	207	27
Government	237	10
Independent Non-Profit	196	12
Part of For-Profit System	195	1
Part of Non-Profit System	173	4

One of the more interesting and parallel findings from IDPH’s *Illinois Rural Health Plan* report is that Illinois rural hospitals were becoming increasingly outpatient-oriented to ‘keep pace with market changes that demand higher quality services at lower cost.’ CAHs and rural hospitals continue to face a shift in types of care and services provided affecting both management decisions and thus revenue stream options.

Between 2003 and 2012, Illinois’ small and rural hospitals experienced substantially higher growth in outpatient visits—almost double—than other hospitals according to the IHA report. In contrast, admissions to small and rural hospitals declined 21.7% and inpatient days by 31.2% during the past decade. In the same time period, outpatient service volumes grew 122.0%. In CAHs, inpatient utilization declined even further during the past decade—admissions by 35.3% and inpatient days by 42.9%.

Due to program limitations on inpatient length of stay and number of beds, there is more focus on outpatient and primary care services in CAHs. According to data from the Illinois Health Facilities and Services Review Board (IHFSRB), in 2013, Illinois CAHs reported approximately 98.0% of total patients seen were outpatient.

While these declines are slightly troubling, the increase in outpatient visits signifies an opportunity for hospitals and staff to adapt to local clients’ needs and diversify their revenue streams, which many survey respondents are doing. These approaches will be increasingly important in the future and several hospitals had capital expenditure projects designed to better serve the growing outpatient population, and the overall population of their service areas.

Illinois small and rural hospitals experienced a significantly higher growth in outpatient visits, almost double, than other hospitals.

CURRENT SERVICES OFFERED

With the increase in outpatient service demand, many CAHs surveyed are evaluating their current services as well as which services may potentially be needed in the future. CAHs most often own and operate primary group practices, specialty facilities, and long-term care facilities (Figure 4). Common types of specialty

facilities operated by CAHs include orthopedic units, general surgical units, and oncology. While many CAHs operate other facilities - such as dental offices, community health centers, mental health practices, EMS, and retail pharmacies - CAHs, overall, do not see it as in their best interest to own these facilities.

In many cases, as with EMS, a third party owns the facilities, with counties as the most commonly-reported owners. For many CAHs, the concerns of owning certain facilities are three-fold: financial risk, lack of specialists available to service rural

areas full-time, and the services are provided by other entities. As a result, collaboration makes sense for many CAH allowing them to focus funding on services and specialties not offered by other entities but which are in great need in their communities.

FIGURE 4. ADDITIONAL FACILITIES OWNED AND/OR OPERATED BY THE HOSPITAL

TYPE OF FACILITY	OWN AND OPERATE	OPERATE	NEITHER OWNED NOR OPERATED
Primary group practice	60.0%	20.0%	20.0%
Long-term care facility	22.6%	38.7%	38.7%
Specialty (E.G., Orthopedic, Oncology, Etc.)	38.5%	30.8%	30.8%
Hospitalist program	16.7%	41.7%	41.7%
Home health services	12.5%	43.8%	43.8%
Behavioral health practice	9.1%	45.5%	45.5%
Emergency Medical Services (EMS)	8.1%	45.9%	45.9%
Retail pharmacy	5.6%	47.2%	47.2%
Mental health practice	2.7%	48.6%	48.6%
Community Health Center (CHS)	2.7%	48.6%	48.6%
Dental office	0.0%	50.0%	50.0%

In order to determine if adding services is in the best interest of the CAH and its service area, hospitals must evaluate their current ability to meet patient demand and also review population health factors such as the number of patients in need of a specific specialty. Overall, respondents reported appropriate staffing levels for patient demand (4.8 on a scale of 5), but said that more

specialties could be offered to better meet demands (3.4). EMS provisions were rated adequate indicating that CAHs were satisfied overall with the ability of their EMS to provide services (4.2). Responses were relatively similar for small and large CAHs, with larger hospitals reporting more satisfaction with staffing levels, specialties offered, and EMS provisions (Figure 5).

FIGURE 5. PERCEIVED ADEQUACY FOR MEETING PATIENT DEMAND BY HOSPITAL EMPLOYMENT SIZE*

CAH SIZE	STAFFING LEVELS	SPECIALTIES OFFERED	EMS PROVISIONS
All Responses	4.8	3.4	4.2
80 to 149 FTEs	4.8	2.4	4.8
150 to 199 FTEs	4.7	3.2	3.2
200 to 249 FTEs	4.8	4.4	4.4
250+ FTEs	5.0	3.8	5.0
Size Not Reported	4.0	4.0	4.0

*Note: 1-5 Scale, with 5 representing Adequate.

Given high priority issues identified by CAH administrators in 2014, the PPACA implementation, and recent reimbursement changes, surveyed CAHs surveyed are most interested in adding community wellness centers, behavioral health practices, hospitalist⁷ programs, and specialties (Figure 6). A majority (55.0%) of respondents are considering adding a hospitalist program. No CAHs are currently planning or considering adding long-term care facilities. Long-term care facilities,

although a prominent need in rural areas especially in the next decade, are often run by independent entities that collaborate with CAHs. Nearly all CAHs responding have no interest in adding dental offices and no CAHs currently own them, suggesting that dentistry is typically seen as outside the domain of surveyed CAHs. Survey respondents were not asked about the level of ownership or collaboration involved with planned or considered additional services.

FIGURE 6. LEVEL OF INTEREST BY CAHS IN ADDING ADDITIONAL SERVICES IN THE NEXT 1-3 YEARS

ADDITIONAL SERVICE FACILITY	DEFINITELY PLAN ON ADDING	CONSIDERING ADDING	NOT INTERESTED IN ADDING
Dental Office	0.0%	10.0%	90.0%
Community Health Center	5.0%	0.0%	75.0%
Long-Term Care	0.0%	0.0%	70.0%
Mental Health Practice	5.0%	20.0%	65.0%
Home Health Services	0.0%	5.0%	65.0%
Retail Pharmacy	0.0%	20.0%	60.0%
EMS	5.0%	15.0%	50.0%
Rheumatology	0.0%	15.0%	50.0%
Behavioral Health Practice	10.0%	30.0%	45.0%
Community Wellness	10.0%	20.0%	40.0%
Oncology	0.0%	40.0%	25.0%
Urology	5.0%	35.0%	20.0%
Hospitalist Program	15.0%	55.0%	5.0%
Specialty	25.0%	20.0%	5.0%

Staffing and recruitment will be an issue to watch if new specialties and other positions are to be added. Many rural areas struggle to recruit and retain primary care physicians and other medical staff. Whether because of geography, economics, culture, education, technological resources, and/or health care resources (i.e., hospital bed capacity, practice scope of service, lack of specialists, etc.), a

comprehensive recruitment and retention plan is needed. For rural communities, hospital recruiting is not only handled by a human resource department; it includes creating an ideal work environment that involves every aspect of the hospital and the larger community. For primary care physicians especially, a CAH not only recruits the doctor but the family as well.

For rural communities, hospital recruiting is not only handled by a human resource department; it includes creating an ideal work environment that involves every aspect of the hospital and the larger community.

⁷ The Society of Hospital Medicine defines hospitalists as physicians whose primary professional focus is the general medical care of hospitalized patients. Their activities include patient care, teaching, research, and leadership related to Hospital Medicine.

HOSPITALIST PROGRAMS

Nearly three-quarters of responding hospitals are planning/considering adding a hospitalist program, so it is worth exploring this issue in more detail. In a 2009 ICAHN Rural Hospitalist Study, *The Advent of Hospitalists in Illinois Critical Access Hospitals*, the author writes that “Physician recruitment imperatives and changing priorities of existing physicians will dictate that almost all CAHs initiate a hospitalist program within the next 10 years.” The report provides two reasons for CAHs seeking hospitalists:

1. Primary care physicians in private practice in rural areas are burning out. It may be that they are aging and are unable or unwilling to manage active and successful office practices while also covering their hospitalized patients at the beginning and ending of each day and sometimes during the night; and
2. “Doctors of the future”. Physicians now leaving residency programs are generally unwilling to take calls and be responsible for hospitalized patients. With half of the doctors being female, there is an increased drive for them to seek a ‘real life’ outside of the profession. Hospitals which have not significantly reduced the ‘after hours’ physician responsibilities will find it very difficult to successfully recruit desirable physician candidates.^x

A properly functioning hospitalist program streamlines medical testing and communication between a patient’s primary care doctor and various hospital specialists. The hospitalist concept can eliminate medical errors and complications associated with health care providers who must practice and be

on call for extended time periods. Since hospitals are unique in patient care, hospitalist programs can also vary in effectiveness and efficiency. Patients often prefer to be under the care of their primary care doctor rather than a different hospital staff person unfamiliar with their medical history, which can affect patient satisfaction.

“Physician recruitment imperatives and changing priorities of existing physicians will dictate that almost all CAHs initiate a hospitalist program within the next 10 years.”

Survey respondents shared some perceived impacts of their hospitalist programs including concerns regarding patient satisfaction and potential positive and negative revenue effects. With nearly 60.0% of surveyed CAHs currently participating in hospitalist programs, either as an owner or operator, and 15.0% of respondents having definite plans to add hospitalist programs, hospitalists are an important component in rural health (Figure 7).

In terms of revenues, more respondents reported an increase in revenues (30.0%) than a decrease (10.0%). In addition, the number of respondents reporting a decrease in length of patient stays outweighed those reporting an increase. Most respondents with hospitalist programs also reported slight to significant increases in the areas of provider satisfaction (100.0%), hospital quality outcomes (88.9%), and patient satisfaction (50.0%). Respondents with active hospitalist programs usually perceived their programs as having favorable impacts, which may partially explain the large proportion of CAHs in Illinois considering adding such programs.

FIGURE 7. PERCEIVED IMPACTS OF HOSPITALIST PROGRAM

PERCEIVED IMPACT	PROVIDER SATISFACTION	PATIENT SATISFACTION	AVG. LENGTH OF STAY / PATIENT	HOSPITAL REVENUES	HOSPITAL QUALITY OUTCOMES
Decrease - Significant	0.0%	0.0%	0.0%	10.0%	0.0%
Decrease - Slight	0.0%	37.5%	25.0%	0.0%	0.0%
No Effect	0.0%	12.5%	62.5%	50.0%	11.1%
Increase - Slight	22.2%	0.0%	0.0%	30.0%	88.9%
Increase - Significant	77.8%	50.0%	12.5%	10.0%	0.0%

COMMUNITY WELLNESS

In addition to a hospitalist program, community wellness was another topic of interest to many CAH administrators. As the PPACA continues to impact the payment model for care, it will be even more vital for CAHs to increase the health of the communities they serve. Community outreach is one avenue for reaching residents before they become patients. A majority of CAHs surveyed either currently have community outreach programs or plan to add

one within the next three years. More than 80.0% of respondents currently employ a patient care coordinator or plan to employ one (Figure 8). Half of respondents reported no plans to add a community wellness center or employ a wellness coordinator.

A majority of CAHs surveyed either currently have community outreach programs or plan to add one within the next three years.

FIGURE 8. COMMUNITY WELLNESS INITIATIVES

PLANS TO ADD COMMUNITY WELLNESS	PATIENT CARE COORDINATOR	COMMUNITY WELLNESS CENTER	COMMUNITY WELLNESS COORDINATOR-FTE	COMMUNITY WELLNESS OUTREACH PROGRAM
Currently Have	0.0%	16.7%	16.7%	25.0%
Planned in 6 Months	0.0%	0.0%	0.0%	0.0%
Planned in 12 Months	0.0%	5.6%	5.6%	0.0%
Planned in 1-3 years	20.0%	27.8%	27.8%	37.5%
No Plans	80.0%	50.0%	50.0%	37.5%

Implementing community wellness initiatives can be challenging for CAHs. Survey respondents noted the most significant challenge was ‘funding availability for hiring community wellness coordinators’, which 64.3% of respondents rated ‘very important’. The perceived difficulty in funding a wellness coordinator position could explain

why half of respondents do not plan to fill this position. Community wellness programs provided by other organizations located in the service area of CAHs was another reason cited as moderately or very important as a challenge, but this could also be a chance for collaboration among several organizations (Figure 9).

FIGURE 9. CHALLENGES TO IMPLEMENTING STRATEGIES FOR COMMUNITY WELLNESS INITIATIVES

CHALLENGE	NOT IMPORTANT	SOMEWHAT IMPORTANT	IMPORTANT	MODERATELY IMPORTANT	VERY IMPORTANT
Funding Availability for Hiring	7.1%	7.1%	7.1%	14.3%	64.3%
Funding Availability for Capital	0.0%	6.3%	12.5%	31.3%	50.0%
Already Provided by Another Organization	14.3%	0.0%	28.6%	14.3%	42.9%
Land Availability for Center	28.6%	7.1%	7.1%	21.4%	35.7%
Need for Community Wellness Program	0.0%	0.0%	7.7%	53.8%	38.5%
Need for a Community Wellness FTE	0.0%	21.4%	28.6%	28.6%	21.4%
Need for Community Wellness Center	0.0%	8.3%	16.7%	41.7%	33.3%
Need for Patient Care Coordinator	15.4%	7.7%	7.7%	23.1%	46.2%
Recruiting Volunteers	7.7%	7.7%	15.4%	46.2%	23.1%

CAPITAL PROJECTS

Many capital expenditure projects during the past several years have included adding space for specialties such as oncology and community wellness initiatives, showing a responsiveness to changing patient demand and population health factors. Hospitals invest in capital projects to better serve their community as well as increase viability. Capital projects in the hospital sector may include purchasing new facilities, purchasing medical equipment, renovating and replacing existing hospitals, and investing in information systems infrastructure. In the absence of these investments, hospitals are unable to stay competitive in terms of quality of care, patient satisfaction, efficiency of service, and ultimately, hospital costs and viability.

IHFSRB collects data on hospital capital projects and the data revealed that in 2013, Illinois CAHs started or completed nearly 100 capital projects to improve technological capabilities, patient services, community wellness, rehabilitation or construction of facilities, and other initiatives (See Appendix for

a list of all 2013 CAH capital expenditures). In the ICAHN-CGS 2014 survey, the average CAH facility was built 56 years ago, with over one-third (38.0%) of respondents undergoing significant expansions or renovations in the past seven years. Nearly 57.0% of CAHs that expanded or renovated facilities in the past three years received state or federal funds for the projects, and the USDA was the most often cited source of state or federal funds. CAHs also used operating funds, bonds, and other finances to start or complete renovations.

In addition, 57.9% of respondents do not plan to renovate or expand in the next three years, possibly due to difficulties in obtaining funds given the reliance on state or federal support for recent expansions. Collectively, surveyed CAHs spent a total of \$109 million on construction projects in the past three years. The projects combined added a total of 65 FTEs in CAHs, although not every project led to FTE increases. These economic impacts are discussed later.



MANAGEMENT, STRATEGIC PLANNING, AND QUALITY IMPROVEMENT

By improving both performance and quality, hospitals and health systems save lives, cut costs and achieve better results. CAHs are using a two-pronged management approach to achieve positive outcomes:

1. Strategic planning and goal setting to achieve their mission by improving effectiveness, empowering employees, and streamlining the decision-making process; and
2. Maintaining a focus on quality improvement initiatives with the aim to improve the overall health of their communities.

STRATEGIC PLANNING

In order to accomplish their mission, measure quality improvement, and respond more rapidly to changing demands, many CAHs are planning strategically for a time horizon of 1 to 3 year, updated annually. Health care is constantly evolving, and hospitals need to ‘plan short-term for long-term gains,’ according to the collaboration issue paper described previously. All CAHs participating in the 2014 CGS-ICAHN survey updated their strategic plans within the past 5 years, and a majority updated their plans in the past 3 years (Figure 10). Few CAHs had updated their plans in the early stages of the economic

recovery between 2009 and 2011. All respondents reported updating their strategic plan at least once every 4 years and half update their plans annually. Over 95.0% of respondents have a designated staff person or team for quality improvement initiatives, including strategic planning which indicates a commitment to the planning process as a first step in improving performance and quality.

“The best way to predict the future is to invent it.” -Abraham Lincoln

FIGURE 10. HOSPITAL STRATEGIC PLANNING

YEAR STRATEGIC PLAN UPDATED	% OF RESPONSES	FREQUENCY OF STRATEGIC PLAN UPDATES	% OF RESPONDENTS
2014	27.8%	Annually	50.0%
2013	27.8%	Every 2 Years	33.3%
2012	38.9%	Every 3 Years	11.1%
2011	0.0%	Every 4 Years	5.6%
2010	0.0%	5 Years Or More	0.0%
2009	5.6%		
2008 or Older	0.0%		

QUALITY IMPROVEMENT (QI) STRATEGIES

Many administrators noted that management and quality improvement initiatives, including benchmarking quality measures, implementing and analyzing electronic health records and attraction-recruitment incentives are, and will be, high priority issues. Survey respondents rated recent quality improvement strategies on effectiveness and CAH representatives reported solid action plans in place for alternative scenarios as the most effective

strategies. These included action plans to prevent surgical site infections (60.0%); to prevent adverse drug events (47.6%); and a program in place for medication reconciliation (40.0%) (Figure 11). More than 50.0% of CAH survey participants had successful quality improvement demonstration projects in the past three years. The most commonly reported projects were Hospital Engagement Networks (HENs), which help identify successful best practices and share

them among other hospitals and providers. This is done by developing learning collaboratives, conducting intensive training programs to help hospitals make patient care safer, providing technical assistance to help hospitals achieve quality measurement goals, and then implementing a system to track and monitor hospital progress in meeting those goals.

Project Better Outcomes by Optimizing Safe Transitions (Boost) and Project Re-Engineered Discharge (RED) were other commonly-reported initiatives, each

with six responses. MBQIP is another voluntary quality improvement strategy and 49 Illinois CAHs provide inpatient, outpatient, and/or Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) data to help drive quality improvement. Most respondents reported no applicable costs to the CAH for projects, but when costs were involved many had state or federal funding. Every year more and more CAHs are involved in strategy improvement projects and continue to evaluate the effectiveness of these strategies.

FIGURE 11. MANAGEMENT AND QUALITY IMPROVEMENT STRATEGIES

QI STRATEGY	EFFECTIVENESS RATING (% OF RESPONSES)				
	NOT EFFECTIVE (1)	SOMEWHAT INEFFECTIVE	EFFECTIVE	MODERATELY EFFECTIVE	VERY EFFECTIVE (5)
Action plan to prevent surgical site infections	0.0%	0.0%	5.0%	35.0%	60.0%
Action plan to prevent adverse drug events	0.0%	0.0%	19.0%	33.3%	47.6%
Multidisciplinary rounds	0.0%	6.3%	18.8%	31.3%	43.8%
Program for medication reconciliation	0.0%	5.0%	15.0%	40.0%	40.0%
Use of advanced practice nurses to coordinate or manage patient care	9.1%	9.1%	9.1%	36.4%	36.4%
Use of rapid response teams	5.9%	0.0%	23.5%	35.3%	35.3%
Benchmarking federally required quality measures	10.0%	5.0%	10.0%	40.0%	35.0%
Benchmarking quality measures created by hospital through strategic planning	0.0%	0.0%	11.8%	58.8%	29.4%
Disease- or condition-specific quality improvement projects	0.0%	0.0%	5.6%	72.2%	22.2%
Evidence-based practice guidelines/ clinical pathways	5.6%	5.6%	27.8%	38.9%	22.2%

MEANINGFUL USE AND ELECTRONIC MEDICAL RECORDS (EMR)

The American Recovery and Reinvestment Act (ARRA) of 2009 established programs under CMS to provide incentive payments for the ‘meaningful use’ of certified EMR technology. The incentive payments are intended to encourage Eligible Providers (EPs) and eligible hospitals to adopt and meaningfully use certified EMR technology.^{xii} The ARRA specified three types of requirements for EMR Meaningful Use:

1. Use of certified EMR technology in a meaningful manner (such as electronic prescribing);
2. Use of certified EMR technology connected in a manner that provides electronic exchange of health information to improve the quality of care; and

3. Submission of clinical quality measures and such other measures selected by the Secretary of Health and Human Services (HHS).

CMS has a phased approach to EMR Meaningful Use, consisting of the following stages:

- » Stage 1: Capture data in a coded format and begin to use and exchange data (2015).
- » Stage 2: Expand this digitization to quality measurement, clinical decision support, and information exchange (extended to 2016).
- » Stage 3: Improve health outcomes for both patients and populations.

Survey respondents described their progress on initiatives related to EMR Meaningful Use Stages 1 and 2. More than 70.0% of respondents have met Meaningful Use Stage 1 and one-quarter already meet Meaningful Use Stage 2. However, respondents that have not met these stages expect to by 2015.

Another important component of EMR is the electronic health information exchange (HIE) which allows doctors, nurses, pharmacists, other health care providers, and patients to securely share a patient’s vital medical information electronically. This helps the patient information process move beyond simply capturing the data for Stage 1 into using the data for

exchange of knowledge (Stage 2) to ultimately improving outcomes (Stage 3). Because of mandatory completion dates in place for Stage 1 and Stage 2 (extended to 2016), 100.0% of respondents reported they will be ready by those dates (Figure 12).

According to the U.S. Department of Health and Human Services (HHS), sharing vital patient information through HIE allows providers to avoid readmissions and medication errors, improve diagnoses, and decrease duplicative testing, all of which are part of the QI strategies listed by survey respondents. More than 60.0% of respondents are connected to the HIE and connected electronically to physicians and clinics.

FIGURE 12. MEANINGFUL USE AND ELECTRONIC MEDICAL RECORDS

STATUS OF EMR MEANINGFUL USE	YES	NO
Met Meaningful Use Stage 1	85.7%	14.3%
Met Meaningful Use Stage 2	25.0%	75.0%
Connected to Health Information Exchange	68.4%	31.6%
Connected Electronically with Physicians and Clinics	85.7%	14.3%
Will Meet Stage 1 By 2015 (If Not Currently Met)	100.0%	0.0%
Will Meet Stage 2 By 2015 (If Not Currently Met)	100.0%	0.0%

For many rural hospitals, meeting Meaningful Use and implementation of EMR have been challenging. The most significant obstacles to meeting Meaningful Use requirements were funding availability for equipment and hiring additional staff; both rated as ‘very important’ by more than 50.0% of respondents (Figure 13). Lack of interest by CAH physicians and staff was another major obstacle in one-third of responses and this may relate to the aging of physicians and inexperience of staff not yet trained to use EMR.

Access to high-speed Internet was not considered a major issue by most CAHs, in part because of recent

federal efforts to help rural hospitals connect to fiber and high speed Internet through the Illinois Fiber Resources Group (iFiber), a collaboration of representatives from NIU, LaSalle County, North Central Illinois Council of Governments, the City of Rockford, Boone County, and Blackhawk Hills Regional Council. NIU received a \$68.5 million National Telecommunication and Information Administration (NTIA) Broadband Technology Opportunity Program grant in September of 2010 to deploy an almost 900-mile network across the northwest Illinois region, including connecting major public entities such as schools, governments, and hospitals.

FIGURE 13. OBSTACLES TO EMR IMPLEMENTATION

IMPORTANCE RATING	FUNDING AVAILABLE FOR EQUIPMENT	FUNDING AVAILABLE FOR HIRING ADDITIONAL STAFF	PHYSICIANS AND/OR STAFF DO NOT WANT TO USE	LACK OF BROADBAND IN THE AREA	LACK OF HIGH SPEED INTERNET CONNECTION
Not Important	0.0%	0.0%	5.0%	35.0%	60.0%
Somewhat Unimportant	0.0%	0.0%	19.0%	33.3%	47.6%
Somewhat Important	0.0%	6.3%	18.8%	31.3%	43.8%
Important	0.0%	5.0%	15.0%	40.0%	40.0%
Very Important	9.1%	9.1%	9.1%	36.4%	36.4%

PATIENT PROTECTION AND AFFORDABLE CARE ACT

The PPACA made health care financing and payment policy changes intended to shift from volume to value-based health care purchasing, emphasize prevention, and focus on cost containment.^{xiii} Survey respondents reported how the PPACA directly affected CAH revenues and activities in the past two years. The PPACA’s effects were reportedly mixed, although in some cases the trend was somewhat more negative than positive. A majority of respondents reported neither a change in Medicare funding received nor in the number of readmissions. Equal numbers of respondents reported increased and decreased Medicare funding received, but the number of CAHs experiencing decreased readmissions outnumbered those with increases. This is a positive sign and could mean that many of the quality improvement initiatives, such as RED, are having positive results.

The PPACA implications are also complex for patients to understand, and staff at more than 85.0%

of responding hospitals experienced an increase in time spent answering insurance questions related to the PPACA (Figure 14). This is a major issue in some hospitals and may mean that a staff person will have to be dedicated as a navigator or patient advocate in order to most efficiently use staff time

Also, 85.0% of respondents saw the number of Medicaid cases increase, partly as described earlier in the report, because the number of Medicaid eligible patients has increased. The percentage of CAHs with an increase in Medicare patients unable to pay (38.9%) outnumbered those experiencing a decrease (5.9%). These two factors involving Medicaid and Medicare could explain why 45.0% of CAHs have experienced an increase in charity care. As is discussed in the financial viability section, charity care costs combined with delayed or decreases in reimbursement can affect the ability of CAHs to maintain levels of services.

FIGURE 14. EFFECTS OF THE AFFORDABLE CARE ACT ON CAHS

ISSUE	SIGNIFICANT DECREASE	SLIGHT DECREASE	NO EFFECT	SLIGHT INCREASE	SIGNIFICANT INCREASE
Number of Medicaid cases seen at the hospital and/or clinics	0.0%	5.0%	10.0%	50.0%	35.0%
Insurance questions consuming more time of clinical and administrative staff	0.0%	5.3%	5.3%	57.9%	31.6%
Charity care cases	10.0%	25.0%	20.0%	30.0%	15.0%
Outreach to potential patients to inform them of health care choices	0.0%	0.0%	38.9%	50.0%	11.1%
Amount of Medicare funding received by the hospital	5.9%	11.8%	64.7%	11.8%	5.9%
Number of Medicare patients unable to pay medical bills due to changes in coverage	0.0%	11.1%	44.4%	38.9%	5.6%
Utilization of the emergency department	0.0%	31.6%	42.1%	26.3%	0.0%
Number of readmissions	11.1%	22.2%	61.1%	5.6%	0.0%

Because several of the PPACA initiatives are aimed at quality improvement, many CAH strategies for responding align with these recent changes. The most often used strategy in response to the PPACA implementation was ‘collaboration with community organizations such as schools and newspapers to promote knowledge of health choices’, reported by 71.4% of respondents. Collaboration is a growing

trend in health care, both urban and rural, but is even more important in rural areas with scarce resources. The next most often-used strategy was ‘launching readmission reduction programs’, reported by 42.9% of respondents. Again, this makes sense because reimbursement is tied to readmission rates, therefore, initiatives working towards reduction are used by many Illinois CAHs.

Community Health Needs Assessments (CHNAs) and training activities to prevent medical errors were other common strategies, both used by 38.1% of respondents (Figure 15). As was noted in the *Managing Health Communities* issue paper, ICAHN has assisted 24 member CAHs to prepare CHNAs since 2012 as part of ongoing efforts to monitor conditions and learn more about the general health and needs of their communities. The CHNA process has helped CAHs identify local issues and areas of need in their communities, while recognizing that involving other community and health care organizations is a necessary and positive approach

to address these needs. The top concern of CAHs completing CHNAs was wellness education and care focused on preventative measures such as diabetes classes, health coaching, and disease prevention (cited by 17 CAHs). This concern is being addressed by several CAHs through capital projects focused on community wellness facilities, adding of additional services such as wellness classes, and the hiring of new/expanded positions such as health coaches and community outreach liaisons. Additional concerns included mental health services, outpatient substance abuse coordination, and local availability of physicians and specialists.

FIGURE 15. COLLABORATIVE STRATEGIES USED BY CAH STAFF

STRATEGY	% OF RESPONDENTS
Collaborated with community organizations to increase consumers' knowledge of health choices	71.4%
Initiated a readmission reduction program, such as RED, at the hospital	42.9%
Initiated a training program for staff to decrease avoidable medical errors	38.1%
Use Community Health Needs Assessment as a community management tool	38.1%
Collaborated with other public entities in the hospital's service area to reduce cost and redundancy	33.3%
Increased the number of outpatient services offered	19.0%
Purchased new or enhanced software to detect avoidable medical errors	14.3%
Built or enhanced a community wellness center open to the public	14.3%
Reduction in the number of staff due to financial strain	14.3%
Reduction in the number of staff due to reduction in services offered	14.3%
Hired new staff designated for patient navigation and insurance issues	9.5%
Decreased the number of inpatient services offered	4.8%

ECONOMIC IMPACTS OF CAHS IN ILLINOIS

According to the National Rural Health Association (NRHA) rural hospitals create approximately 138,000 jobs nationally.^{xiv} If a CAH were to close, substantial economic declines in the rural community could result, especially if other physicians, nurses, pharmacists and other health care providers in the community are also affected.

The NRHA report further discusses patients having to travel farther distances for care or delaying care resulting in poorer health outcomes. In fact, businesses, families, and retirees often will not relocate to a rural area without quality health care. Given the importance of hospitals to rural economies, ICAHN

and CGS analyzed the financial impacts of CAHs on their communities. In 2010, CGS reviewed the economic impact of CAHs in Illinois in *Critical Access Hospital Program: Economic and Community Impact in Illinois*, as an update to the original 2006 CGS-ICAHN Economic Impact study.

⁸ IMPLAN is a generally accepted tool used to estimate the movement of money within a region. It uses I/O coefficients based on county-specific purchasing patterns and include both industry-specific direct and indirect impacts to measure local impacts, www.IMPLAN.com.

The economic impact analysis presented in the current analysis, uses the IMPLAN input/output program created by the Minnesota IMPLAN Group.⁸ The IMPLAN program generates three types of multipliers in an economic impact analysis.

1. **Direct multiplier** is based on a CAHs initial spending or employment. As an example, if the CAH spends \$5 million, then this figure represents the direct economic impact while recognizing that some of the funds flow to other areas.
2. **Indirect multiplier** reports industry-to-industry transactions. For example, a CAH purchases goods and services such as local laundry services, food, landscaping, and other items. These purchases have a positive effect on the business and payrolls of supplying industries. This multiplier does not include the effects of spending by local employees in retail and service sectors such as housing, grocery stores, and/or entertainment.
3. **Induced multiplier** includes the industry-to-industry transactions plus the household purchases in various sectors as noted above.
4. The **total economic impact** then is the sum of the direct, indirect, and induced economic impact multipliers (Figure 16).

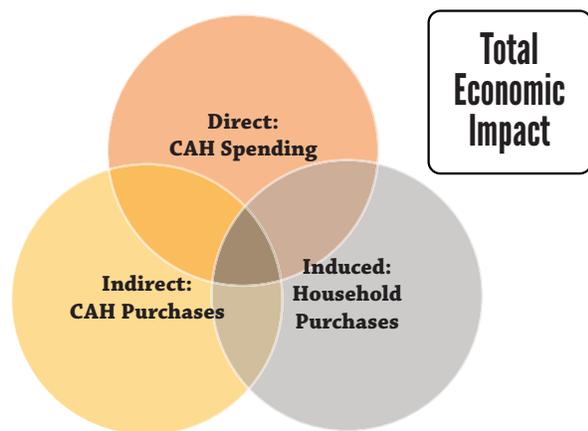
In hospitals, the output is the total value of care provided, or total inpatient and outpatient revenue plus the actual value of charity care provided. Output is greater than the sum of value added and labor income, since it includes intermediate inputs, such as energy costs or the purchase of manufacturing and construction materials in impacted industries.⁹

CAHs impact their communities on two levels: long-term and short-term. They create long-term economic impacts through their permanent employment at the hospitals. CAHs also create temporary, but significant, support for local businesses through large, one-time spending, for capital projects such as construction and equipment.

IDPH’s *Illinois Rural Health Plan* report included data related to an economic impact study of 17 of the 18 CAHs in 2002. They reported annual payrolls of \$72 million which generated an additional \$28.1 million in surrounding communities. The 17 hospitals had 2,800 FTE employees.

By contrast, in 2014, the 39 CAHs in Illinois that reported employment data employed 7,295 FTEs, classified as 7,831 jobs under IMPLAN’s definitions¹⁰. To obtain employment estimates for the remaining CAHs, average employment at the 39 CAHs was multiplied by 12, which provides a statewide estimate of 10,157 FTEs (Figure 17). IMPLAN estimates that CAH employees earned a total of \$578,004,218 in compensation, including payroll and benefits, or an average salary of \$56,906 per job.

FIGURE 16. TOTAL ECONOMIC IMPACT



Employees at Illinois CAHs earned an average salary of \$59,906, including payroll and benefits.

⁹ Economic impacts are presented in terms of employment, labor income, value added, and output. Value added represents an industry’s contribution to Gross Domestic Product (GDP), consisting of employee compensation, taxes on production, and an industry’s excess of operating revenues over expenditures. Output represents the value of goods and services produced in an industry. This is represented in service sectors as sales and in manufacturing sectors as sales plus changes in inventory.

¹⁰ IMPLAN data definitions weigh full- and part-time employment differently.

FIGURE 17. PERCEIVED ADEQUACY FOR MEETING PATIENT DEMAND BY HOSPITAL EMPLOYMENT SIZE*

IMPACT TYPE	EMPLOYMENT	LABOR INCOME	VALUE ADDED	OUTPUT
Direct Effect	10,157	\$585,565,317	\$676,753,571	\$1,307,006,615
Indirect Effect	7,722	\$412,158,928	\$745,432,049	\$1,141,714,039
Total Effect	17,879	\$997,724,245	\$1,422,185,620	\$2,448,720,655

*Note: Indirect effect includes indirect and induced combined. Labor Income is greater than employee compensation since it includes proprietor income.

Collectively, CAHs in Illinois provided health care, including charity care, valued at \$1.3 billion, with approximately 45.0% responding that this was an increase in charity care over past years. While this amount is not income *per se*, it is a part of the ‘value’ that CAHs provide in their community and can be quantified.

A CAH generates significant business-to-business transactions and hospital employees spend a portion of their earnings locally. The indirect and induced impacts of CAH operations affect virtually all sectors of the economy. In FY 2013, CAH operations supported an additional 7,722 jobs that were created or retained because CAHs purchased goods and services or because CAH employees spent their wages. In total, therefore, CAHs in Illinois support an estimated 17,879 jobs statewide. This means that every \$100 CAHs spend for operations generates an additional \$87 in output in the state economy.

Especially important to understand is which business sectors experienced a majority of the indirect and induced jobs, output, and wealth created. These impacts vary by CAH location and depend on the

proportion of activity retained in the county. Larger counties containing more businesses will naturally retain more of the economic impact. CAHs purchase supplies, rent or buy space and real estate, and use local services in their daily operations. In turn, these expenditures encourage existing suppliers to add employees. Real estate, employment services, and food services/restaurants benefit most from the growth in business-to-business (indirect impact) purchasing generated by the CAHs (Figure 18).

As an example, the 639 supported jobs in the food services and restaurants category could involve food suppliers, grocery stores, and others that provide food for CAH staff and patients. CAHs also impact other health care providers such as medical labs and offices of health care practitioners like dentists who may not be directly related to CAHs. On average, each indirectly-impacted position earned \$58,958 in total compensation including benefits. While some of these positions may be part-time and/or temporary as is often true in food services, CAHs are responsible for the employment of thousands of workers, many of whom are not directly employed by a CAH.

FIGURE 18. TOP TEN INDUSTRIES INDIRECTLY IMPACTED BY CAH OPERATIONS

INDUSTRY	INDIRECT JOBS IMPACTED (#)
All Industries	7,722
Real estate establishments	703
Employment services	699
Food services and drinking places	639
Private hospitals	301
Offices of physicians, dentists, and other health practitioners	263
Securities, commodity contracts, investments, and related activities	231
Wholesale trade businesses	230
Services to buildings and dwellings	210
Medical and diagnostic labs and outpatient and other ambulatory care services	198
Nursing and residential care facilities	174

In addition to the long-term effects of CAH operations, CAHs also have shorter-term economic impacts from construction and capital expenditures. In FY 2013, CAHs spent a total of \$121,066,469 on capital expenditures, including construction

and equipment purchases (Figure 19). These expenditures directly supported 733 temporary jobs in the companies receiving expenditures. This means every \$100 spent by CAHs on capital expenditures, an additional \$82 in output is generated statewide.

FIGURE 19. SUMMARY OF CAH CAPITAL EXPENDITURE IMPACTS

IMPACT TYPE	TEMPORARY EMPLOYMENT	LABOR INCOME	VALUE ADDED	OUTPUT
Direct Effect	733	36,668,570	46,666,140	121,066,469
Indirect Effect	634	37,397,525	61,693,449	99,399,272
Total Effect	1,368	74,066,095	108,359,589	220,465,742

*Note: Indirect effect includes both indirect and induced combined. Labor income is greater than employee compensation since it includes proprietor income.

FY 2013 capital expenditures by CAHs generated an additional \$99,399,272 in output statewide through the indirect effects. These expenditures exclude the effects of spending directly from CAHs and instead reflect economic activity generated as businesses and employees spend funds earned from

CAH capital projects. Some of the heavily impacted sectors include wholesale trade, architectural services, and finance institutions such as banks and other lenders. Several industries affected by CAH capital projects were also impacted by CAH operations (Figure 20).

FIGURE 20. TOP TEN INDUSTRIES IMPACTED INDIRECTLY BY CAH CAPITAL PROJECTS

INDUSTRY	INDIRECT OUTPUT GENERATED
All Industries	\$99,399,273
Wholesale trade businesses	\$6,662,010
Architectural, engineering, and related services	\$6,106,943
Monetary authorities and depository credit intermediation activities	\$5,495,122
Imputed rental activity for owner-occupied dwellings	\$5,458,931
Real estate establishments	\$4,038,361
Telecommunications	\$3,286,283
Food services and drinking places	\$3,203,461
Securities, commodity contracts, investments, and related activities	\$3,187,700
Private hospitals	\$2,990,128
Offices of physicians, dentists, and other health practitioners	\$2,441,951

In summary, knowing the economic impacts of a critical access hospital can assist policy makers in making future decisions. CAHs have significant impacts statewide but especially in communities where CAHs are located. More than 7,700 jobs

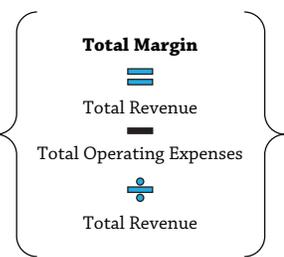
are supported outside of CAHs in a variety of industries because of CAH operations. In addition, \$99.4 million in output was generated in the state economy because of CAH capital projects, excluding effects of spending on the projects themselves.

FINANCIAL INDICATORS AND VIABILITY

The economic impact of CAHs is well-understood and the role that rural hospitals play in their communities as employers, health care providers, and partners in development is critical. For these reasons, the financial viability and sustainability of CAHs should be top priorities for community leaders and elected officials.

The Flex Monitoring Team collects and studies several financial indicators¹¹ to evaluate the fiscal health of CAHs. Several other financial indicators were evaluated in IDPH’s *Illinois Rural Health Plan* report and comparisons are made as available.

The first evaluation is based on total margin, which is a measure of overall hospital profitability, measured by the difference between total revenue (e.g., inpatient, outpatient, non-patient activities) and expenses (e.g., salaries, charity care, supply costs), divided by total revenue. For example, a 5.0% margin means the hospital makes five cents of profit on every dollar of total revenue. Because the margin is a proportion, two hospitals with the same margin can have vastly different absolute dollars of profit. Therefore, the table is shown by revenue categories for comparison. Profitability is important in CAHs even if many are publicly-owned or non-profit. Profitable CAHs have more latitude to make investments that will better



serve their communities and funds can be spent on new personnel, construction, or equipment to add or improve a hospital services.

According to IDPH’s *Illinois Rural Health Plan* report, in 1992 hospitals with fewer than 50 beds had a total margin of 5.7% and by 1996 the total margin had decreased to -1.3%. However, the total margin for all CAHs reporting increased from 2.4% in 2009 to 3.6% in 2013 in spite of the recession. The CAH program helped many hospitals increase their total margin during the past 15 years. On average all CAHs were profitable in 2009 and 2013, and some becoming more profitable since 2009. However, some smaller hospitals (as measured by revenue) saw a decrease in total margins but because only two hospitals under \$10 million in revenue reported data, it is impossible to generalize from this comparison (Figure 21). Standard and Poor’s Rating Services provides independent credit risk research and benchmarks, including performance ratios for small hospitals (under \$125 million in revenue). An A+ rating represents the best, followed by A-, BBB+, BBB, and BBB-. Comparisons from the most recent report released in October 2013 are made within each category as available.

FIGURE 21. SUMMARY OF CAH CAPITAL EXPENDITURE IMPACTS

CAHS BY REVENUE CATEGORY IN 2009	TOTAL MARGIN		CASH FLOW MARGIN		RETURN ON EQUITY		OPERATING MARGIN		CURRENT RATIO		DAYS CASH ON HAND		AVG. DAILY CENSUS ACUTE BEDS		AVG. DAILY CENSUS SWING BEDS	
	'09	'13	'09	'13	'09	'13	'09	'13	'09	'13	'09	'13	'09	'13	'09	'13
All Reporting CAHs*	2.4	3.6	6.4	9.8	2.8	4.0	2.6	3.4	2.5	2.6	123.2	143.3	6.8	5.1	2.0	1.9
< \$10M	0.0	-2.2	3.5	3.3	8.4	-6.0	3.3	1.3	1.4	1.8	47.3	23.2	4.1	2.4	3.5	3.9
\$10-20M	2.2	3.3	4.9	9.5	1.2	4.5	-0.1	2.3	2.7	2.6	105.5	109.8	4.9	3.9	2.3	2.3
> \$20M	3.0	4.7	8.4	10.9	4.2	4.7	5.4	4.9	2.5	2.8	151.5	194.0	9.0	6.8	1.5	1.3

Source: Flexmonitoring.org

*Note: 35 CAHs provided valid data to Flex Monitoring Team for all indicators above for years 2009 and 2013. CAHs with invalid or missing

¹¹ The Flex Monitoring Team is a consortium of the Rural Health Research Centers in Minnesota, North Carolina, and Maine. They are funded by the Federal Office of Rural Health Policy to evaluate the impact of the Medicare Rural Hospital Flexibility Grant Program (the Flex Program).

data were excluded in calculations. Of the 35 CAHs, 2 had less than \$10 million in revenue, 17 had \$10-20 million, and 16 had more than \$20 million.

Cash Flow Margin

shows the ability of the hospital to generate cash flow from patient services and is measured as a ratio

$$\left\{ \begin{array}{c} \text{Cash Flow Margin} \\ \frac{\text{Patient Services}}{\text{Total Patient Revenues}} \end{array} \right\}$$

of cash flow from patient services to total patient revenue. CAHs with more than \$10 million in revenue in 2009 experienced stronger cash flow from patient care since the economic recovery began in 2009.

$$\left\{ \begin{array}{c} \text{Return on Equity} \\ \frac{\text{Net Income}}{\text{Net Assets}} \end{array} \right\}$$

Return on Equity

indicates a CAHs' ability to gain income through equity investments and is calculated as net income

divided by net assets. Return on equity grew for CAHs with at least \$10 million in revenue since 2009, especially in hospitals with \$10-20 million in revenue. CAHs in the middle size category experienced the strongest growth in return on equity, and CAHs performed better on this indicator as revenue size increased. However, smaller CAHs may not have experienced the same trend, as the two CAHs in the sample with revenue below \$10 million in revenue had net losses on equity between 2009 and 2013.

Operating Margin

describes a hospital's ability to cover operating expenses with operating revenues as measured

$$\left\{ \begin{array}{c} \text{Operating Margin} \\ \frac{\text{Net Operating Income}}{\text{Net Operating Revenue}} \end{array} \right\}$$

by the ratio of net operating income to operating revenue. Operating margins are negative when hospitals have operating expenses greater than income. By this measure, Illinois CAHs have become more profitable overall since 2009, and mid-size hospitals reversed net operating losses from 2009. The median ratio from Standard and Poor's Rating Services ranged from 4.0 (A+) and 0.6 (BBB-) in 2012.

Current Ratio

is a hospital's ability to cover short-term obligations, as calculated by the hospital's current assets

$$\left\{ \begin{array}{c} \text{Current Ratio} \\ \frac{\text{Current Assets}}{\text{Current Liabilities}} \end{array} \right\}$$

divided by current liabilities. The current ratio for all CAHs increased slightly from 2.5 in 2009 to 2.6 in 2013. This means that in 2013, the average CAH could cover more than double its short-term obligations with current assets. In this instance the smallest hospitals that reported data also improved.

Days of Cash on Hand

represents a hospital's ability to continue operating during periods

$$\left\{ \begin{array}{c} \text{Days of Cash on Hand} \\ \frac{\text{Total Cash}}{\text{Avg. Daily Operating Expenses}} \end{array} \right\}$$

with no new cash collected or received, measured as a hospital's total cash divided by average daily cash operating expenses. In 2013, the average CAH had sufficient resources to operate for 143 days or 4.8 months with no new cash, an increase since 2009. The largest CAHs experienced the greatest growth in cash on hand relative to daily operating costs. However, the smallest hospitals in the sample reported a deterioration in their cash position. According to Steve Kennedy, Managing Director for Lancaster Pollard, having less than 30 days of cash on hand is considered a significant credit concern. The median ratio from Standard and Poor's Rating Services ranged from 383.8 (A+) to 147.2 (BBB-) in 2012.

Average Daily Census of Swing and Acute Beds

indicates levels of hospital utilization. On average, CAHs in all size categories filled slightly fewer acute beds per day in 2013 than in 2009. The number of swing beds occupied per day remained stable in most CAHs.

Similar to the Flex Monitoring data, ICAHN-CGS 2014 survey respondents reported on the profitability of their CAHs as measured by total margin, cash flow margin, and return on equity. Hospital employment size is significantly and

positively correlated with total margin and return on equity, suggesting larger CAHs are typically better able to make investments that improve their profitability beyond the revenues obtained from patient services (Figure 22).

FIGURE 22. REVENUE INDICATORS BY HOSPITAL EMPLOYMENT SIZE

HOSPITAL SIZE CATEGORY	TOTAL MARGIN	CASH FLOW MARGIN	RETURN ON EQUITY
80 to 149 FTEs (5 CAHs)	-0.8	2.5	-4.4
150 to 199 FTEs (6 CAHs)	3.2	5.0	5.0
200 to 249 FTEs (6 CAHs)	4.0	11.3	6.1
250+ FTEs (4 CAHs)	6.6	2.9	12.8
Size Not Reported	-0.01	NA	-0.0

HOSPITAL EXPENDITURES

CAHs in the 2014 CGS-ICAHN survey collectively spent \$481.7 million in FY 2013, of which 87.1% was on operations, 8.1% was on capital expenditures, and the remaining 4.8% on neither capital expenditures nor operations (Figure 23). Within operating expenditures, 51.0% went to employee salaries, benefits, and education expenses. The majority of operating expenditures are personnel-related, such as

salaries, benefits and education/training, suggesting that CAHs have a strong interest in recruiting and retaining their workforce to produce positive quality outcomes. A vast majority of the capital expenditures were for construction projects, such as expanding CAH surgical units. Slightly more than one-third of capital expenditures (35.8%) were for equipment purchases such as electronic medical record keeping.

FIGURE 23. HOSPITAL EXPENDITURES IN FY 2013

EXPENDITURE TYPE	TOTAL (20 RESPONSES)
Total	\$481,682,378
Operations	\$419,311,098
Salaries	\$167,953,018
Benefits	\$44,539,753
Education	\$1,292,015
All Other Operating Expenses	\$205,526,312
Capital	\$39,148,237
Equipment	\$14,046,343
Construction	\$24,959,614
All Other Capital Expenditures	\$142,280
All Other Expenditures	\$23,223,043

SHORT-TERM AND LONG-TERM DEBT

Debt can be an indicator of the financial health of an entity and can be an issue with financial leverage. Respondents reported their CAHs’ levels of short-term (less than 1 year) and long-term debt (more than 1 year) in FY 2013. CAH size was significantly and positively correlated with the debt to equity ratio, suggesting that larger hospitals are expanding to provide more services and, therefore, are more actively borrowing. The average CAH had short-term debt outstanding equal to 3.2% of total revenue, and long-term debt equal to 27.1% of total revenue (Figure 24).

Thus, surveyed CAHs have debt burdens that could be fully repaid with four months of revenue. Debt burdens did not vary significantly with the size of the CAH. However, some small CAHs face substantial long-term debt obligations. Total long-term debt in CAHs with 80 to 149 FTEs totaled 61.9% of their total revenue. This finding is somewhat sensitive due to the small number of CAHs responding in this size category to the ICAHN-CGS survey and was not typical for the survey sample as a whole.

FIGURE 24. DEBT AS PERCENTAGE OF TOTAL REVENUE BY HOSPITAL EMPLOYMENT SIZE*

EMPLOYMENT SIZE	SHORT-TERM DEBT*	LONG-TERM DEBT
All Responses (21 CAHs)	3.2%	27.1%
80 to 149 FTEs (5 CAHs)	1.9%	61.9%
150 to 199 FTEs (6 CAHs)	0.6%	11.2%
200 to 249 FTEs (6 CAHs)	5.6%	41.6%
250+ FTEs (4 CAHs)	3.3%	17.4%
Size Not Reported	11.6%	15.0%

*All percentages are weighted.

Short-term and long-term debt relate indirectly to profitability measures for surveyed CAHs. Long-term debt as a percentage of total revenue is significantly and negatively correlated with net margin and return on equity. This means that

CAHs with proportionally more debt ranked lower on profitability indices, which is somewhat expected because interest and depreciation expenses are greater for those hospitals with more debt outstanding.

RESPONDING TO FINANCIAL CONDITIONS

Rural Illinois has had a relatively sluggish recession recovery with population declines and economic stagnation in many counties. These factors, without question, affect the finances of rural hospitals. Survey respondents rated the likelihood of using various strategies in response to fiscal strain, such as deferring capital expenditures and pursuing more state and federal funding. Respondents, on average, were likely to use a variety of strategies with nearly all strategies rating higher than 3 (on a 1- to 5-point scale) for likelihood to undertake (Figure 25). Respondents were most likely to ‘reduce or eliminate non-profitable services’. Although many CAHs are non-profit or government-owned, all must remain financially viable to continue serving their communities.

Selective and strategic expansion and/or reduction of hospital services and activities are essential for meeting current and future demands. The lowest-rated strategy was ‘taking no action at the time of the survey.’ The strategies of ‘cutting non-essential services’ and ‘reducing hours of operation’ were also rated unlikely, probably because CAHs operate in medically underserved parts of Illinois where services are essential to their communities, and reductions in hours would further undermine access to health care.

The strategy respondents were most likely to use in response to fiscal strain was ‘reducing or eliminating non-profitable services’.

Respondents were likely to ‘cut unprofitable services’, but not ‘non-essential services,’ perhaps because the services that do not attract significant patient revenue could be deemed non-essential. The likelihood of using some cost-saving strategies varied by CAH size. CAHs with fewer employees were more likely to defer capital expenditures and apply for state or federal funding. In the case of larger hospitals, they may have more revenue to

maintain equipment and therefore do not consider the short-term savings of delaying purchases as significant. However, delaying capital projects and pursuing external funding may be a more politically acceptable cost-saving strategy for smaller CAHs if they require no reduction in the current service levels, i.e., the hospitals do not require a reduction in the number of staff, hours of operation, or current services.

FIGURE 25. HOSPITAL EXPENDITURES IN FY 2013

AVERAGE LIKELIHOOD RATING (SCALE OF 1-5; 5 IS VERY LIKELY)	ALL RESPONDENTS	80 - 149	150 - 199	200 - 249	250+	SIZE NOT REPORTED
Cut back / eliminate non-profitable services	4.0	4.0	3.8	4.2	4.0	4.0
Reduce staff through attrition or low census	3.8	4.0	3.8	4.0	3.0	5.0
Postpone equipment purchases	3.6	4.0	3.7	4.2	2.3	4.0
Attempt negotiating higher reimbursement	3.6	3.2	4.3	3.0	3.3	5.0
Collaborate w/ other agencies in service area	3.5	2.8	4.0	3.8	3.0	5.0
Increase charges for paying patients	3.5	3.0	3.8	2.8	4.3	5.0
Postpone capital expansions	3.4	3.8	3.7	3.6	2.5	3.0
Apply for more federal grants	3.4	3.8	3.8	3.4	2.3	N/A
Apply for additional state programs	3.3	4.0	3.5	3.2	2.0	N/A
Combine departments or activities	3.2	2.4	3.7	4.0	2.3	5.0
Increase requests for private donation	3.2	3.0	3.3	3.2	3.0	4.0
Cut non-essential services	2.5	2.4	2.2	3.3	2.3	N/A
Reduce hours of operation when possible	2.5	2.4	3.0	1.8	2.3	4.0
Take no action at this time; consider for future	2.3	2.3	2.2	2.0	3.5	1.0

THE ROAD AHEAD

Health care organizations, including CAHs, are in unique positions because they control their own destiny in terms of implementing the PPACA, improving population health, and creating positive outcomes. The legislative requirements did not come with a road map of how to implement quality initiatives, which allows hospitals to create their own strategic direction.

In early 2014, CAH administrators in Illinois ranked several key issues that ICAHN should focus on legislatively and policy-wise, both statewide and nationally. It was important that CAHs maintain cost-based reimbursement for outpatient Medicaid services. As the analyses have shown, Medicaid patients represent an increasingly larger proportion of patients at CAHs and without adequate reimbursement this underserved population would be at risk of not receiving care if a CAH is not viable because of lower reimbursement rates.

In addition, staffing and recruiting are important issues for both rural and urban health care facilities. CAHs and ICAHN want to preserve and fund the rural partner medical extender programs and reinstate and fully fund loan payment programs for medical health professionals to work in physician and health professional shortage areas (HPSAs). From newer professions such as hospitalists and health coaches to

family physicians and registered nurses, continued recruitment efforts that help rural health care facilities improve services offered will be crucial. As this report shows, many policy issues involve the continued existence of rural and critical access hospitals. These policy issues are found at the local, county, regional, state, and national levels of government. The CAH program has had a major effect on the rural health care landscape during the past 15 years .

Some significant and relevant findings from the report include:

1. The health care industry is a **major economic driver in rural communities** and in 2013 was the largest employment sector in 22 of the 62 rural Illinois counties. The health care industry represented 15.5% of the employment in rural Illinois counties, compared with 13.5% for the state as a whole.
2. IMPLAN estimates that CAH employees earned a total of \$578,004,218 in compensation, or an average salary of \$56,906 per job which is vital to the prosperity of rural Illinois. Also important is that **a quality rural health care system is essential to continue attracting and retaining businesses and employers.**
3. Many capital expenditure projects at CAHs during the past several years included adding space for specialties such as oncology, community wellness initiatives, and building new hospital facilities. These **investments have a ripple effect of additional jobs and spending in the community, as well as demonstrate responsiveness to changing patient demand .**
4. Rural areas are experiencing changes in demographics including two important growing population segments: residents 65 years and older and those between 35 to 44 years of age. The specific services needed by these two groups differ but their local availability is important in stabilizing rural populations. **For retirees and young families to locate in rural areas, job opportunities and health care facilities must exist to meet their changing needs.**
5. Thirty-four independently-owned hospitals in Illinois have remained financially viable partly because of the CAH program. Financial indicators disclosed steady improvements over time for most CAHs surveyed and **no CAHs have closed in Illinois since 2005. In addition, CAHs that are part of systems have been self-sustaining within those systems.**
6. Over 95.0% of respondents have a designated staff person or team for quality improvement initiatives, including strategic planning, which **indicates a commitment to the planning process as a first step in improving performance and quality.**
7. **Collectively, CAHs in Illinois provided health care, including charity care, valued at \$1.3 billion,** with approximately 45.0% reporting an increase in charity care over past years. While this amount is not income *per se*, it is part of the 'value' that CAHs provide beyond the direct economic benefits.
8. Many CAHs reported increases in number of Medicaid cases since the PPACA was implemented, partly because the number of Medicaid eligible patients increased. In addition, the percentage of CAHs with an increase in Medicare patients unable to pay (38.9%) outnumbered those reporting a decrease (5.9%). These two factors could explain why some CAHs have had an increase in charity care. **The additional costs combined with delayed or decreased reimbursement affects the ability of CAHs to maintain levels of services.**
9. Illinois CAHs report quality measures in Hospital Compare and are **above the national average in all but two quality measures.**

The CAH program has been critical to the viability of small rural communities. It has enabled rural hospitals to maintain access to care, modernize facilities, establish quality of care standards, create wellness services and provide a safety net for rural residents. Rural areas will continue to face challenges with population and economic trends, but CAHs can be an integral part of the economic strength and stability of the community and provide an attractive place to live and work.

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APPENDIX: CAPITAL EXPENDITURES FOR ILLINOIS CAHS, 2013

HOSPITAL	CITY	TOTAL CAPITAL EXPENDITURES	PROJECT DESCRIPTION	AMOUNT OBLIGATED	FINANCING METHOD
Abraham Lincoln Hospital	Lincoln	\$1,088,600.00	No reported projects in excess of \$320,000		
Advocate Eureka Hospital	Eureka	\$1,147,339.00	Eureka expansion	\$775,996	Cash
Advocate Eureka Hospital	Eureka	\$1,147,339.00	Infrastructure upgrades	\$355,979	Cash
Advocate Good Samaritan Hospital	Downers Grove	\$29,320,302.00	Cardiology remodel	\$9,560,000	
Carlinville Area Hospital Association	Carlinville	\$133,127.00	Miscellaneous assets	\$133,127	Operations Cash
Clay County Hospital	Flora	\$617,433.00	Rooftop AC units	\$337,607	Cash
Community Memorial Hospital	Staunton	\$135,249.00	No reported projects in excess of \$320,000		
Crawford Memorial Hospital	Robinson	\$4,528,229.00	Operating room renovation	\$1,929,729	Gov. Bonds
Dr. John Warner Hospital	Clinton	\$737,373.00	Electrical power system	\$540,475	Equity
Fairfield Memorial Hospital	Fairfield	\$603,442.00	No reported projects in excess of \$320,000		
Fayette County Hospital	Vandalia	\$414,944.00	No reported projects in excess of \$320,000		
Ferrell Hospital	Eldorado	\$564,780.00	Meaningful use equipment	\$564,780	Cash
Genesis Medical Center - Illini Campus	Silvis	\$3,472,893.00	CCL-infusion-OPCC remodel	\$661,208	
Gibson Community Hospital	Gibson City	\$1,154,223.00	Equipment expenditures	\$740,742	Cash
Hamilton Memorial Hospital	McLeansboro	\$286,601.00	No reported projects in excess of \$320,000		
Hammond Henry Hospital	Geneseo	\$1,220,917.00	No reported projects in excess of \$320,000		
Hardin County General Hospital	Rosiclare	\$266,958.00	Chemistry analyzer	\$140,940	Equity/Grant
Hardin County General Hospital	Rosiclare	\$266,958.00	EHR	\$59,209	Equity/Grant
Hardin County General Hospital	Rosiclare	\$266,958.00	Clinic roof	\$29,922	Equity/Grant
Hardin County General Hospital	Rosiclare	\$266,958.00	Holter monitor	\$22,635	Equity/Grant
Hardin County General Hospital	Rosiclare	\$266,958.00	Defibrillator	\$14,252	Equity/Grant
Hillsboro Area Hospital	Hillsboro	\$4,024,060.00	GE Optima MR450 MRI unit	\$1,155,374	Operations
Hillsboro Area Hospital	Hillsboro	\$4,024,060.00	EHR hardware and software	\$1,042,899	Operations
Hillsboro Area Hospital	Hillsboro	\$4,024,060.00	MRI building	\$538,623	Operations
Hillsboro Area Hospital	Hillsboro	\$4,024,060.00	Digital mammography unit	\$481,900	Operations
Hillsboro Area Hospital	Hillsboro	\$4,024,060.00	64 slice CT scanner	\$399,000	Operations

HOSPITAL	CITY	TOTAL CAPITAL EXPENDITURES	PROJECT DESCRIPTION	AMOUNT OBLIGATED	FINANCING METHOD
Hoopeston Community Memorial Hospital	Hoopeston	\$826,341.00	Hospital room, replacement	\$400,000	Equity
Hopedale Hospital	Hopedale	\$951,619.00	No reported projects in excess of \$320,000		
Illini Community Hospital	Pittsfield	\$706,122.00	No reported projects in excess of \$320,000		
Iroquois Memorial Hospital	Watseka	\$2,069,029.00	No reported projects in excess of \$320,000		
Kewanee Hospital	Kewanee	\$1,597,461.00	No reported projects in excess of \$320,000		
Kirby Medical Center	Monticello	\$651,622.05	No reported projects in excess of \$320,000		
Lawrence County Memorial Hospital	Lawrenceville	\$1,292,368.00	Surgical addition	\$633,036	Donations/Loans
Lawrence County Memorial Hospital	Lawrenceville	\$1,292,368.00	Surgical equipment	\$370,538	Loan
Marshall Browning Hospital	DuQuoin	\$532,085.00	No reported projects in excess of \$320,000		
Mason District Hospital	Havana	\$769,598.00	No reported projects in excess of \$320,000		
Massac Memorial Hospital	Metropolis	\$3,500,000.00	MEDITECH system conversion	\$3,200,000	Capital Line Of Credit
Memorial Hospital	Carthage	\$344,302.00	Major moveable equipment	\$290,035	Self-Funded
Memorial Hospital	Carthage	\$344,302.00	Buildings	\$54,267	Self-Funded
Memorial Hospital	Chester	\$959,427.00	No reported projects in excess of \$320,000		
Mendota Community Hospital	Mendota	\$712,623.00	EHR incentive costs	\$712,623	Cash
Mercy Harvard Memorial Hospital	Harvard	\$6,929,909.18	Patient room remodel & construction	\$3,162,707.18	Not Financed
Mercy Harvard Memorial Hospital	Harvard	\$6,929,909.18	Electronic medical records	\$1,470,955	Not Financed
Mercy Harvard Memorial Hospital	Harvard	\$6,929,909.18	Sonialvision Versa 100LR-RF/16	\$412,877.07	Not Financed
Morrison Community Hospital	Morrison	\$239,833.00	No reported projects in excess of \$320,000		
OSF Holy Family Medical Center	Monmouth	\$4,762,954.48	Electrical upgrade	\$337,000	Equity
Pana Community Hospital	Pana	\$681,851.00	No reported projects in excess of \$320,000		
Paris Community Hospital	Paris	\$1,197,199.00	Replace computer servers	\$414,454	Cash
Perry Memorial Hospital	Princeton	\$1,276,619.00	No reported projects in excess of \$320,000		
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Ultrasound system 60830	\$149,886	Owner-Equity Funds

HOSPITAL	CITY	TOTAL CAPITAL EXPENDITURES	PROJECT DESCRIPTION	AMOUNT OBLIGATED	FINANCING METHOD
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Server, laptops, USB docks, desktops & software for E-MDS system	\$116,042	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Telemetry system 00267	\$114,390.00	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Chemistry analyzer c400999	\$78,400	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Hematology analyzer 66569	\$64,400	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Epiphany cardio server	\$39,500	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	CPSI Imagelink server	\$36,070	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Co-Ag analyzer f8956	\$29,505	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Multi-zone AHU controls retrofit	\$26,891	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	AC unit for the CT room	\$23,844	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Cooling tower	\$19,264	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	(3) dietary refrigerators	\$15,688	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	CPSI disk-to-disk back-up	\$14,656	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	(3) dietary freezers	\$12,352	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Back-up server	\$9,218	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	CPSI orchard lab interface	\$9,000	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Polycom video conference equipment	\$8,826	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Freezer -40C RE 832287-62	\$8,107	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Emergency generator tank	\$7,389	Owner-Equity Funds
Pinckneyville Community Hospital	Pinckneyville	\$790,411.00	Convection oven - Vulcan vc44gd	\$6,982	Owner-Equity Funds
Red Bud Regional Hospital	Red Bud	\$1,291,008.00	No reported projects in excess of \$320,000		
Rochelle Community Hospital	Rochelle	\$1,768,414.00	Multi-stack chiller	\$326,527	Operations

HOSPITAL	CITY	TOTAL CAPITAL EXPENDITURES	PROJECT DESCRIPTION	AMOUNT OBLIGATED	FINANCING METHOD
Salem Township Hospital	Salem	\$12,124,766.00	Medical surgical wing & related	\$11,162,010	USDA Direct Loan & Operating Funds
Salem Township Hospital	Salem	\$12,124,766.00	Physician practice bldg, lot & contents	\$525,000	Loan From Physician & Operating Funds
Salem Township Hospital	Salem	\$12,124,766.00	EHR related hardware & software	\$355,200	Meaningful Use & Operating Funds
Sarah D. Culbertson Memorial Hospital	Rushville	\$0.00	No reported projects in excess of \$320,000		
Shelby Memorial Hospital	Shelbyville	\$730,722.00	No reported projects in excess of \$320,000		
Sparta Community Hospital	Sparta	\$648.55	No reported projects in excess of \$320,000		
St. Francis Hospital	Litchfield	\$10,387,687.00	Surgery/ER renovation	\$5,499,118	Bonds
St. Francis Hospital	Litchfield	\$10,387,687.00	Emergency generator addition	\$1,038,329	Operating Income
St. Francis Hospital	Litchfield	\$10,387,687.00	Code compliance	\$505,435	Grants & Operating Income
St. Francis Hospital	Litchfield	\$10,387,687.00	Emergency generator	\$381,896	Grants & Operating Income
St. Joseph Memorial Hospital	Murphysboro	\$1,760,141.00	Routine replacement of equipment	\$809,539	Equity
St. Joseph Memorial Hospital	Murphysboro	\$1,760,141.00	Facility plans <\$320,000 each	\$543,739	Equity
St. Joseph Memorial Hospital	Murphysboro	\$1,760,141.00	Ultrasound equipment	\$343,747	Equity
St. Joseph's Hospital	Highland	\$34,019,375.00	New hospital	\$34,019,375	Bonds/Philanthropy
Taylorville Memorial Hospital	Taylorville	\$0.00	No reported projects in excess of \$320,000		
Thomas H. Boyd Memorial Hospital	Carrollton	\$0.00	No reported projects in excess of \$320,000		
Union County Hospital	Anna	\$1,560,442.00	ADA project	\$889,614	Internal
Valley West Community Hospital	Sandwich	\$6,239,455.00	VW expansion	\$4,888,781	Cash
Valley West Community Hospital	Sandwich	\$6,239,455.00	VW retention pond	\$427,331	Cash
Wabash General Hospital District	Mount Carmel	\$906,236.00	No reported projects in excess of \$320,000		
Washington County Hospital	Nashville	\$816,127.00	CT scan	\$450,000	Capital Lease

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