

Coordinator: You may press Star 1 on your phone to ask a question.

I'd like to inform all parties that today's conference is being recorded. If you have any objections, you may disconnect at this time.

I'd now like to turn the conference over to Shawnda Schroeder. Thank you. You may begin.

Shawnda Schroeder: Thank you so much. Good morning and good afternoon to all of you. My name is Shawnda Schroeder, and I'm a research assistant professor at the University of North Dakota Center for Rural Health.

In that capacity I also serve as the principal investigator for the Rural Health Research Gateway, also referred to as Gateway.

Today, the Rural Health Research Gateway is hosting a webinar titled "Rural hospital mergers and acquisitions 2005 to 2016."

Those of you who aren't familiar with the Rural Health Research Gateway, Gateway is a website that provides easy and timely access to all of the research and the findings of the federally funded Rural Health Research Centers. We date back to 1997. Our goal a Gateway is to help move the new research findings of those rural health research centers to various end-users quickly and efficiently.

Our website can be used to find abstracts of current and completed research projects, publications from those projects, and information about the research centers themselves as well as individual researchers.

Following today's webinar, we will post the webinar's recording, Rural Health Research Gateway website. You can find the website at Ruralhealthresearch.org and you can join our Gateway alerts so that you receive periodic email updates but we have new publications available. That will also be the mechanism by which we notify users that the webinar from today is archived. You can also follow us on Twitter, like our page on Facebook, and then you can receive daily notifications about rural research.

As mentioned, we have muted all of the lines but I encourage you to use the question-and-answer chat box at the bottom of your screen. Type any questions that you might have. At the end of the presentation today, the HRSA operator will open up the meeting for questions. And then those written in the chat box but the read if and when there are no more questions on the line.

If we do have remaining questions in the chat box at the end of the meeting today, I will share those with our presenters and share them back with all of you only send out the archive.

So thank you again for joining us. I'm not going to introduce to you our presenters. We have with us today John Duncan Williams Jr. and Dr. George Pink.

George Pink is a PhD deputy director of the North Carolina Rural Health Research Program and the Humana Distinguish Professor in the Department of Health Policy and Management at the University of North Carolina at Chapel Hill.

John Duncan Williams Jr. is an assistant professor at the Medical University of South Carolina in the College of Healthcare Professions, Department of Healthcare Leadership in Management.

Dunc is pursuing a PhD in health policy and management at the University of North Carolina Chapel Hill in the Gillings School of Global Public Health Department of Health Policy and Management.

He has an emphasis on healthcare financial management. Thank you again, both, for joining us today. I'm going to turn it over to the primary presenter, which is Dunc. Thank you, Dunc.

John Duncan Williams Jr.: Thank you, Shawnda. Good afternoon. Thanks everyone for joining. We'll go through and do encourage you to submit questions to the chat box, and we'll do our best to answer those as we go along and then also open up, as Shawnda said, at the end, for additional questions.

Jump right into our agenda. We'll start by talking about the current wave of mergers and acquisitions in healthcare across the industry and why we - why we are here today.

So, move into why hospitals are merging, relate that to a specific example of a recent proposed merger. Then move into rural hospitals specifically and rural hospitals as targets in a merger.

Then we'll talk about some of the findings from the findings brief, which was late – through the email alert from Rural Gateway and can also be accessed on the Rural Gateway website.

And after talking about volume and geographic distribution of some of those - of those mergers, we'll talk about specific characteristics of which hospitals merge compared to which hospitals did not merge during the same time period.

That's new information which is not available in the findings brief. After that, we'll talk about why mergers are important to lawmakers and have their attention at this point. Then wrap up with the conclusion.

We'll get started. Key takeaways we're going to want you to know at the end of this lecture are, one, the number of rural hospital mergers has increased since 2009. The peak was 2014 and for rural mergers specifically, there's been a drop in 2015 and '16 since that peak.

Two, rural hospital mergers are not geographically distributed in an even manner across the states. Specifically, 11 states saw over half of the rural hospital mergers during our time period, which was 2005 through 2016.

Three, compared to rural hospitals that did not merge during the sample period, rural hospitals that merged were more likely to report lower total margins, face capital financing constraints, be closer to the nearest large hospital, bigger, and serve larger margins.

In some – four, mergers may provide an opportunity for rural hospitals to access much-needed capital and continue providing some level of care, specifically acute care, in those communities.

However, if services change at the hospitals in rural communities, this could hinder access to care and further widen the known gap between rural and urban health disparities.

Starting with the current wave of mergers and acquisition in healthcare, we'll define what our population is, rural hospital mergers, how we got there and some of the language we'll be using today.

We started with Irving Levin Associates' hospital M&A reports for the years 2005 through 2016. Irving Levin captures announced hospital merger transactions.

From that, we took the announced deals, separated which of those were rural hospitals, then, by our definitions of a merger, ownership transfer, we determined when and if announced deals merged.

We did so with publicly available information online. So, IRS 990s, IRS 10Ks, annual reports from hospital websites. And when none of that was successful, we picked up the phone and/or shot emails to executives and administrative individuals at the hospitals in question.

We used the term acquirer as the often larger hospital or health system that is making the acquisition or merge of a target hospital. And in our analyses, a target is always a rural hospital, and that's what we'll be discussing only get to the findings brief.

Broadly, I want to show the impact healthcare mergers and acquisitions have on the U.S. economy. It's significant. This chart here from Irving Levin Associates shows the dollar value of these deals over the past five years. And as you can see, there was a steep increase in 2017. The amount, \$180 billion. On the next slide, we'll show that a recent report said for the first quarter of 2018, those numbers are continuing to rise, calling it the biggest first quarter of healthcare mergers and more than 10 years.

An important issue, why are hospitals merging? Some prominent reasons, risk-bearing capabilities, the ability to manage health outcomes and also meet the demands of both public and private payer reimbursement, and the ability

to manage care across the continuum. Many hospitals are responding by merging to increase the scope in the market. The ability to access network infrastructure and group purchasing opportunities and the ability to leverage market power across areas.

Other reasons hospitals are merging is to recognize and accept a positive brand presence. So, for hospital systems that are merging where the name recognition may potentially help improve quality.

What do we know about hospitals after they merge? The information on this slide is specific to hospitals that are merged, so target hospitals in a merger. The most widely accepted known change at a targeted hospital is that prices increase.

Summarizing some work by Martin Gaynor, who's spoken to multiple congressional hearings on the subject, prices can increase by 10 to 44% at a merged hospital.

Other effects - capital expenses increased at merged hospitals post-merger. Costs can decrease as health systems attempt to become more efficient through a merger.

And as costs decrease and a system attempts to become more efficient, it is possible and there is some research showing that services can decrease at the target hospitals, and therefore, also staff levels can decrease.

Talk about a specific example where we're seeing hospitals merge. This is the HCA-proposed acquisition of Mission Health. HCA, the largest hospital operator in the U.S., 177 hospitals, a for-profit system is acquiring a not-for-profit system Mission Health, six hospitals in western North Carolina. The

following half-dozen slides are specific quotes from Ron Paulus, the CEO of Mission Health, as well as one of the board members of Mission Health related to why HCA may want to merge with Mission Health and why Mission Health is interested in merging with HCA at this time.

We'll give you some opportunity to read this as we go through, but I'll highlight and summarize what I've taken as the important points from this.

So HCA may be merging to grow and expand across the states, specifically in the western North Carolina region by acquiring Mission Health.

The second bullet, Mission Health CEO Ron Paulus sees several benefits to merging with HCA, such as scale platform for back-office administrative overhead and supply chain efficiencies.

On this slide, we also see Dr. Paulus recognize the potential for clinical capabilities and negotiating power with managed care organizations related to the strong balance sheet and the ability to scale these - for Mission Health, to scale potential negotiating skills.

And the second bullet, it describes some of the innovations and the opportunity to contribute to a foundation. A merger between - a merger such as this, HCA, a for-profit, and Mission Health, a not-for-profit, there are tax implications specifically for Mission Health, which is operating as a not-for-profit.

In this situation, both entities are proposing to contribute \$25 million to a fund to approve innovations which, as we'll see in the next slide, is expected to increase and improve the health and well-being. And that's what's expected from this merger.

Now citing Tom Oreck, a board member for Mission Health, in the second bullet, and what he expects specifically around timing. This merger has the potential, as Tom says, there couldn't be a better time for Mission to pursue this type of partnership.

This is interesting as we look at why so many hospitals are emerging now. And so the perspective from, again, this board member highlighted in red here, that the environment is going to get tougher and tougher and it's going to require the time and resources HCA has to maintain and improve quality while being able to manage costs.

Now, this specific proposed merger is still under review by the North Carolina Attorney General. I like that to set up why rural hospitals may be common mergers and targets – and common targets in a hospital merger.

In our findings brief, if you're following along, a summary of the three most common reasons we highlight – one, the need to meet value-based purchasing requirements and the need to invest in capital, specifically new technology and electronic health records, and also reinvest capital in aging and new facilities and growth.

Create an environment that many rural hospitals cannot afford to do. Financially distressed rural hospitals of which there are a high proportions, specifically in 2015. Over one third of all rural hospitals reported negative total margins. Many rural hospitals may seek or accept a merger to improve finances and, at times, to survive to avoid closure.

And three, for acquirers of rural hospitals, this relates to point number one, the ability to increase market share and control costs especially may be important

in today's environment where there is a higher and increasing focus on an outcomes-based reimbursement.

The Affordable Care Act of 2010 introduced provisions which were later adopted such as value-based purchasing, accountable care organizations, hospital acquired conditions reduction programs, hospital readmission reduction programs.

And now in macro, we're seeing MBIP - merit based incentive payments and the alternative payment models that will continue a push from fee-for-service to outcomes-based reimbursement. Many hospitals are approaching mergers as one way to best approach those changes.

So let's talk about why mergers may be good, and subsequently, why mergers may be bad for rural hospitals.

These are similar to the reasons that hospitals across the U.S. are reporting why they want to merge. Access to capital is expected to be a very important reason for rural hospitals who want to merge. A 2017 survey of executives from merged hospitals across the U.S. found that merging to increase access to capital was the number one reason reported to merge.

For rural hospitals, research has shown rural hospitals spend a smaller proportion of total revenue on capital and are slower to adopt capital-intensive technology such as EHRs, which led to slower adoption of meaningful use at times.

Also, rural hospitals may benefit by being able to participate and participate more successfully in ACOs and value-based payment models. Rural hospitals did find it difficult to recruit providers. A merger may enable that hospital to

recruit easier and share staff and also set up referral patterns, referral relationships with specialists of the acquiring hospitals.

And a merger can lead to improved joint purchasing, negotiating pay with payers. For rural hospitals that may be considering reducing acute inpatient care, a merger could create an opportunity to maintain split billing by being a part of a larger health system.

And finally, survival is one opportunity where rural hospitals, if there are no other options at times, rural hospitals may want to merge to survive.

Now, some of the concerns of a merger often focus on the loss of control. Rural hospitals are often the largest employer in a community. And many individuals take great pride in their rural hospital and so board members and rural hospital executives may be concerned about loss of control with the merger.

Mergers typically lead to centralized administration, which can lead to outsourcing of support services and agency nurses. It can also lead to a relocation or consolidation of specific services, clinical services and/or specialty services, which may result in that consolidation occurring at the acquirer.

In those cases, they would be - there can be potentially fewer employment opportunities and/or increased travel time for patients to receive the specific services.

Increased travel time, if that occurs, has been associated with a number of negative health outcomes, specifically lower likelihood to receive care, more

advanced disease diagnosis, higher likelihood of inappropriate treatment, worse prognosis, and worse quality of life.

So these are potentially impactful changes that we need to be aware of as we consider mergers.

So, the key takeaways here are that mergers - they can provide an opportunity for rural hospitals to access much-needed capital, continue providing different levels of care in the community.

Mergers also may lead to changes in services provided specifically at the rural hospital. And in those cases, changes in the specific services provided at those hospitals could hinder access to care and could potentially further widen the known and growing gap in life expectancy and other health outcomes between rural and non-rural Americans.

Now, specifically looking at the volume of rural hospital mergers, if you're following along and haven't accessed the findings brief, if you highlight your cursor, hit control and at the same time, left click on the image, it'll take you to the link of the findings brief.

We're going to talk about the volume of mergers and the geographic distribution of those merger specifically, most of which this portion can be found in the findings brief.

We determined 380 rural hospital mergers occurred in the 12 years of our sample period as graphed here. You see from 2009 onward, those numbers increased until 2014 when we saw a dip, still generally high numbers of rural hospital mergers in 2015 and '16.

This graph, specifically two points I want to make. This graph is for rural hospital mergers. Compared to all hospital mergers across the U.S., we've seen a continual increase beyond 2014 so that dip is a deviation, to some degree, in the trend of hospital mergers across the U.S. with rural hospital mergers. Those rural mergers still remain relatively high compared to prior years.

The second point I want to make is that this graph from 2010 onward roughly follows the trend in rural hospital closures, which colleagues at the North Carolina Rural Health Research program track. And that information can be found through a simple Google search of rural hospital closures NCRHRP. We're seeing there's been an increase of hospital mergers but then there's also been a subsequent dip.

That number of 380 mergers occurs for 326 unique rural hospitals. On the next slide we'll show you a map of where those hospitals are located. But there's a difference between 326 unique rural hospitals that merged and 380 hospital mergers. That difference is because 41 rural hospitals merged more than one time, as we show on this graph. Thirty of those merged twice, nine merged three times, and in our 12-year sample, one hospital merged four times, and a separate hospital merged five times.

Geographically, rural hospital mergers are not equally dispersed across the U.S. As you can see from this graph, the darker the state, the higher number of unique rural hospitals emerged during the time period.

Specifically, you see Oklahoma, there were 22 unique hospitals. Texas, 22. And Wisconsin with 19. Something unique is that Oklahoma and Kansas, which are next to each other, both have a relatively high number of rural hospitals compared to other states, but Oklahoma had 22 unique hospitals

involved and 36 mergers during the time, whereas Kansas had four mergers during that time. We've spent some time with some phone calls reaching out to individuals with knowledge of those specific markets. And we don't have specific conclusions, but we're conducting further research around that topic.

Another interesting point from this map is, what's the proportion of hospital - rural hospital mergers for all rural hospitals in a state? Specifically, I'll start with the state of Virginia where 44% of all rural hospitals were involved in at least one merger.

Two other states with high proportions, South Carolina, 37% of all rural hospitals were involved in at least one merger. And Pennsylvania, 29% of all rural hospitals were involved in at least one merger.

An appendix attached to the findings brief are the number of mergers by states. So we'll start with Oklahoma where 22 unique hospitals, but 36 mergers for that state. This list goes in descending order based on the frequency of mergers by state.

To summarize, from these findings, again, we found a high number of rural hospital mergers increasing from 2009 through 2014 with the dips in '15 and '16.

And also, we want you to take away that over half of all hospital mergers were in 11 states, most frequently, Oklahoma, Texas, and Wisconsin and often in the South.

Now, we're going to move into some new information which we have not made previously available. We've just come to - we've been able to analyze in the past few weeks.

What types of rural hospitals merged? Over the next four slides, we're going to show you a comparison. The middle column are averages for rural hospitals that did not merge during our sample period.

Interpretation here is specific and very important. These hospitals may have merged previous to 2005 or after 2016 before our sample. And for purposes of this presentation, these hospitals did not merge during the sample and, therefore they are in the middle column.

Now, hospitals, the 326 unique hospitals that never merged during the sample period, those averages are in the right column of this slide and the following three slides.

So, I'll start with rural PPS, non-Critical Access Hospitals. On average, what this shows is that merged rural hospitals were more likely to have been rural PPS, non-Critical Access Hospitals than non-merged rural hospitals. 69.73% shows that roughly 70% of merged rural hospitals were some type of rural PPS. For our comparison, we grouped all non-Critical Access Hospitals into a rural PPS category.

Similar, if you look at the for-profit status, merged rural hospitals were three times more likely to be for-profit than non-merged rural hospitals. And looking at size, we measured size by net patient revenue and we put it into quartiles to just say what are the largest and one of the smallest hospitals by net patient revenue?

And we found in merged rural hospitals were indeed much more likely to be in the largest quartile and much less likely to be in the smallest quartile in the years 2002 to 2016.

So that means the rural hospital that merged were more likely to have been larger, less likely to have been smaller. Driving distance - and a very interesting finding here is that those hospitals that merged were more likely to have been a full eight miles closer to the nearest large hospital than rural hospitals that did not merge during the sample period.

Unreported, but we also look at driving distance from patients to the nearest large hospital and found similar findings. So, both driving distance from that rural hospital that merged as well as driving distance from patients within that market, both significantly closer for merged rural hospitals than non-merged rural hospitals.

Outpatient payer mix was lower at hospitals that were more likely to merge, and rural hospitals that merged were more likely to have provided obstetric care during this time period.

Now we'll talk about markets. The average market of a merged rural hospital was nearly twice as large as the market in terms of population as a non-merged hospital.

Regarding unemployment rate, unemployment rate was a half of a percentage point higher in those merged rural markets. And back to the discussion of how many hospitals in the South are merging. This number of 35.70 for the South under non-merged rural hospitals, that gives a rough idea of how many rural hospitals there are nationally in the South.

While it's a high proportion, still a greater proportion of merged hospitals were in the South, so 55% of all merged hospitals, over half, were located in the South.

Now we'll look at some financial characteristics. From a revenue standpoint, rural hospitals that merged reported lower total margins than rural hospitals that did not merge, specifically, a one percentage point lower total margin on average.

By two measures of efficiency, and this would be in contrast, rural hospitals that merged were more likely to have been better at least two efficiency measures, so Medicare outpatient cost to charge ratio, a lower ratio could signify a hospital is better at billing, relatively better at billing, or able to manage costs.

A lower FTE per bed could signify that a hospital is more efficiently managing labor resources. So, for both of these, there are lower numbers for the merged rural hospitals which, by two measures of efficiency, would suggest the merged rural hospitals operate more efficiently than non-merged rural hospitals.

Then looking at the capital structure and capital picture for these hospitals, we created a measure that we are calling the ability to cover debt payments for existing debt. And we looked at, for hospitals that may be merging to access capital, how many could cover their current debt? And so according - by this measure which has deviated from a debt service coverage ratio, a lower percent of merged rural hospitals, 51.09%, were able to cover their current debt compared to non-merged rural hospitals which was 62%.

Plant age, which we put into quartiles, basically, this shows that merged hospitals were more likely to be in the news quartile or have newer plant age. So, facilities are newer than non-merged hospitals at 36% compared to 23. And also, merged hospitals are less likely to have older plant age. Then, we

looked at total capital expenditures and found that during this timeframe, merged hospitals spent more on average than non-merged rural hospitals for total capital.

So, to summarize this, rural hospitals that merged were less likely to be able to cover debt but had newer facilities and were spending more on capital.

Summarizing those four slides, compared to rural hospitals that did not merge during the sample period, rural hospitals that merged are more likely to be PPS hospitals, for-profit, have greater net patient revenue, be closer to the nearest large hospital, serve larger markets, be located in the South, report lower total margins, and have newer plant age, and spend more in capital.

And we'll move into why lawmakers may be interested in mergers. One example of another motivation for merging which has been in the news is the potential for often a private entity to acquire a financially distressed rural hospital that is looking for an option to avoid bankruptcy and/or closure.

In those situations, specifically this type of merger, the sole and/or primary reason the acquirer may be making acquisition is to increase lab billings without necessarily increasing lab services at the rural hospital.

An example, as highlighted here in bold, is **Stamford Memorial Hospital** in Stamford, Texas, where a private acquirer came in, did not necessarily increase lab services provided at the rural hospital but increased lab charges for services provided at other locations than the rural hospital.

And the increases were substantial, from \$632,000 in lab charges billed in 2015 for this one hospital to nearly \$70 million in 2016. This issue is the subject of multiple lawsuits specifically with some of the private payers with

concerns with how that's being billed to the private payers. And this is also subject of congressional inquiry.

Another recent policymaker interest that's been in the news recently is that individuals from Congress have asked MedPAC to review how consolidation is affecting Medicare and also vice versa, how Medicare is impacting consolidation across healthcare markets.

To conclude, we're recognizing fundamental shifts in the healthcare landscape, which has spurred growth in the hospital M&A market. Hospitals and other providers throughout healthcare are exploring ways to strategically position themselves as best as possible for the future.

Mergers and acquisitions are complex. They are financial and legal events with potentially both positive and negative implications and also unintended implications as we just described with the opportunity to increase lab billings by such a significant amount for a hospital to stay afloat.

So these are all things that are very important for rural hospital decision-makers and policymakers and community members to be aware of as we move forward.

So, we also consider this to be support for future research investigating why hospitals are merging and the financial impact of mergers as well as the impact of mergers on access to care within the rural communities of which we are conducting research and will continue to come back to you with further findings.

This is near the end. I want to summarize as we look for your questions. But want to thank all the individuals on this page and the Cecil Sheps Center for

Health Services Research at UNC Chapel Hill and our colleagues who made all this possible – Mark Holmes, George Pink, Kristin Reiter, Denise Kirk, Julie Perry, Randy Randolph, Sharita Thomas, Kristie Thompson, Ann Howard, and so many others, as well.

We provided a handful of resources here I hope you'll check out as the presentation becomes available in the recording. And also included in thanking Rural Research Gateway, and so, some links here and also Shawnda Schroeder for all their support putting this on. And at this time, we'll open it up for questions.

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