New Rural Model: Primary Health Center
Test Findings
May 2016

Presented by Kansas Hospital Association Rural Health Visioning Technical Advisory Group
Funding from the United Methodist Health Ministry Fund
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Executive Summary

The Primary Health Center (PHC) model has been developed by the Kansas Hospital Association Rural Health Visioning Technical Advisory Group (TAG) as an alternative for low-volume, rural hospitals who are challenged to maintain either a Critical Access Hospital (CAH) or a small PPS hospital. The TAG has developed this model to meet their vision of “a sustainable option for rural areas to provide preventive and primary care, chronic disease management and emergency services; serving as an access point, and coordinating care for the individual when higher levels of service are needed.” The model would move the focus of resources from the traditional episodic care while assuring continued local access to primary care, emergency services, a new transitional care service and a continued role as a driver and leader for health in the community.

The TAG considered a wide variety of issues and challenges, concluding that no one size fits all model for rural health care will address all situations, but new options for local health systems must be developed and tested. To help guide that discussion, the TAG suggests that:

A sustainable rural health delivery system should ...

- Focus on prevention, primary care, chronic disease management, emergency services and other essential services to improve the health of the population served.
- Provide access to essential health services within a reasonable distance and timeframe.
- Encourage collaborative local and regional solutions for service provision and governance.
- Continue to pursue the highest standards of quality and patient safety.
- Promote cost and operational efficiencies and provide value in the provision of local and regional services.
- Embrace the use of technology to expand access and patient participation in his/her care.
- Be paid and financed fairly by federal, state and local resources, private payers and patients such that the health of the population can be improved.

The principles outlined above form the basis for the PHC model. The TAG has attempted to focus on core, essential services for communities that do not have the volume of patients locally to sustain what has evolved to the CAH of today. Community needs and data driven decision strategies would identify the services for which volumes allow the highest level of patient safety and quality. This process would align the structure for service delivery with community need. The model does not use the traditional terms that have evolved in current regulatory language. Rather, terms are utilized that describe the service itself, thus avoiding the assumptions and definitions traditionally used. Using descriptive terms has allowed the TAG to think creatively and effectively about what may fit and address the particular challenges in Kansas, rather than the silos developed by regulation and payment.
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The model offers communities and their hospitals two options: a PHC open 24 hours per day, 365 days a year, or a PHC that is open 12 hours per day, 365 days per year. The 24-hour option could also provide transitional care and, if needed in the community, long term care or specialty services not otherwise available.

The model functions as either a new provider type that fills the gap between Rural Health Clinics (RHC) or Federally Qualified Health Centers (FQHC) and truly sustainable CAHs or a refined version of CAH that can be sustainable in a very low population area. It would provide the alternative in the all-or-nothing decisions communities currently face as they struggle to sustain a CAH.

Both PHC options provide ambulatory, initial assessment and interventional services for the hours in the day that they are available.

Both are open to the community every day of the year to provide the consistent service array most needed and sustainable by the community. Both would focus their efforts on the primary care needs of the community. Both would be supported by a robust EMS plan and have the flexibility to use telemedicine to support the ER and augment supervision for APRNs and PAs. Both would have a formal relationship with a larger Partner Organization to assist with operational and clinical aspects of delivering services to their community.

The model is intended for small rural communities that have existing services as a method to align their structure with the needs of their communities. However, the TAG notes that these models could well be a way for communities without access now to develop services that lead the charge to improve health in their communities, support regional efforts of population health and play a role in community sustainability.

The model envisions a payment method for a PHC that would incentivize an integrated health system at the local level rather than the current CAH payment method that carves out and consequently dis-incentivizes integration. Payment would be global or inclusive in nature for all core services and subsidized at the federal and local levels, recognizing the importance of access to care and maintaining the needed community services such as emergency and EMS services.

The TAG has discussed the importance of developing a financing method that recognizes both the need to promote health and value over volume AND appropriately funds the local health needs. Several potential methods have been discussed, but it will be important to identify what is being paid now and how the models will either refocus financial support to services needed by the community or provide sustainable funding.
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Communities would retain local governance, but also be a strong partner in a regional system. These models would require formal arrangements with a variety of partners. The first and most critical is a relationship with a Partner Organization that has specific capabilities to handle patients referred from a PHC. The Partner Organization would have 24-hour surgical and obstetrical services and the ability to support operational functions that are a burden to their partnering PHC. Other relationships such as those with EMS and public health also would be key.

Critical to the transformation of the local health system is the ability to coordinate the care of residents throughout the continuum of care provided locally and in the region. This will require dedicated staff and resources currently not adequately recognized in the payment system. The financial and operational assumptions will include the expense and workforce necessary for this function.

Test Process

Funded by a one-year grant from the United Methodist Health Ministry Fund, KHA’s foundation, the Kansas Hospital Education and Research Foundation conducted a financial, operational and clinical “paper” test. Five current CAHs volunteered to provide information and serve as a case study to determine the potential impact of transitioning to the PHC. Both the 12 and 24-hour models were tested in each of the five sites. Local CPA firms identified the financial needs and worked with hospital leadership to identify operational changes that were considered. Nurse reviewers analyzed over 900 patient charts to determine how patients would be served. Results were then used to suggest potential payment methods and modify the model.

Findings

The results show that although there are still many unanswered questions and many details yet to be determined, the two models portrayed in this document can address the seven principles and provide a cost effective alternative for communities that cannot sustain a CAH or small PPS hospital. The clinical review showed that the majority of patients can still receive services locally and the financial analysis found that financial requirements can reduce the cost from the traditional CAH. The PHC 12 and 24-hour models can work in some Kansas communities and indeed some communities nationwide. The TAG realizes that the further development of these models will require the collaboration of many organizations and governmental agencies both statewide and nationally.

In addition, even if the models are approved and available, each community will need to make a community-based decision about adoption. In fact, there will be many communities that will not be attracted to either. With the introduction of the Critical Access Hospital model, it was several
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years before the model was widely accepted as an alternative to the traditional community hospital provider type. Change will be difficult for some communities to embrace, now as in the past.

The purpose of this project is to inform not only KHA but those individuals and agencies that are seeking new methods of health delivery and payment for rural Kansas and the country. That purpose has been accomplished. Lawmakers and agencies are encouraged to look seriously at these models as potential solutions and make them available to communities before it’s too late and existing struggling hospitals must close and leave their community without needed healthcare services.
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Test Findings

In 2011, The Kansas Hospital Association (KHA) Board of Directors identified the need for KHA to look to the future of rural health care and "get in front of the issue" by designing our own future. As a result, they appointed the Rural Health Visioning Technical Advisory Group (TAG). While the membership of the TAG has evolved since its inception, it is made up of a group of volunteers from all shapes and sizes of Kansas hospitals with a passion for rural health care and a conviction that while still uncertain, change is here.

The TAG identified five areas of work: 1) establishing a case for change and principles for the future of rural health care in Kansas; 2) identifying and reviewing best practices and emerging models to learn from and guide hospitals and KHA; 3) finding or developing models that could be an option for small rural communities to sustain access to primary care; 4) developing scenarios of the future to assist members in structuring leadership discussions about their role and future; and 5) providing resources for members to evaluate collaboration and affiliation.

Background

The TAG determined that no “one size fits all” model for rural health care will address all situations, but new options for local health systems must be developed and tested. To help guide that discussion, KHA recommends that “a sustainable rural health delivery system should:

- Focus on prevention, primary care, chronic disease management, emergency services and other essential services to improve the health of the population served.
- Provide access to essential health services within a reasonable distance and timeframe.
- Encourage collaborative local and regional solutions for service provision and governance.
- Continue to pursue the highest standards of quality and patient safety.
- Promote cost and operational efficiencies and provide value in the provision of local and regional services.
- Embrace the use of technology to expand access and patient participation in his/her care.
- Be paid and financed fairly by federal, state and local resources, private payers and patients such that the health of the population can be improved.”

Kansas has long been a center for innovation. The work in Kansas toward transformation of the health system is widespread and collaborative. To name just a few historical initiatives, Kansas successfully leveraged the Hill Burton program to establish centers for health care access in communities throughout the 1940s and 1950s. The Swing Bed program which assisted in designing the program as it now stands in small hospitals around the country was tested and
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implemented in Kansas. Kansas was one of the first seven states to test and demonstrate the Essential Access Community Hospital/Rural Primary Health Center (EACH/RPHC often called “each/peach”) program which led to the current Critical Access Hospital (CAH) program. Kansas also created, and now supports, a national quality and benchmarking system entitled Quality Health Indicators. KHA continues to collaborate in as many ways as possible to leverage scarce resources and assure that access to health care is continued throughout the state. KHA believes that our efforts to design our own future and identify models that may create choices for small rural communities is only part of a larger effort.

Kansas, like other predominantly rural states, faces challenges in many areas. As the TAG identified the facts behind these challenges, it became evident that Kansas faces issues common to all rural hospitals as well as its own unique challenges. Kansas covers over 82,000 square miles divided into 105 counties. Eighty-nine of those counties are rural.

A few facts about Kansas hospitals that form the backdrop of the project:
- 1 of 3 Kansans live in rural areas.
- 102 Kansas hospitals are rural and treat over 85,000 patients, providing over 7 million clinic and outpatient visits annually.
- Kansas rural hospitals are an important economic engine in their community by providing employment to over 152,000 individuals either directly or through indirect community contribution.
- 69 percent of Kansas rural hospitals are operating at a loss for Medicare patients.
- In 2013, 65 hospitals had fewer than 5 acute inpatients on any given day; 18 of those had less than 1 patient per day.
- In 2013, 39 Emergency Medical Services (EMS) had less than 150 responses per year, and 51 EMS had less than 150 transports per year as many responses can be handled on the scene and do not result in a transport.

In today’s health care environment, rural hospitals are facing federal and state reimbursement shortfalls, low population service areas, high community expectations and difficulties recruiting and retaining physicians and other highly trained staff. The “Case for Change” is clear; these challenges impact current health care delivery and threaten the sustainability of the health care system in the future. The full KHA report on a Case for Change can be found at http://www.kha-net.org/FurtherInformation/DownloadsRuralIssuesCriticalIssues/d116732.aspx.

The hospital of the future will likely not be characterized by the number of beds it has, but the organization will look beyond bricks and mortar to their role as a physical or virtual hub of service delivery.1 The National Rural Health Association also notes that the need for financial support for providers that are attempting to move to new models cannot be over emphasized, noting rural payment and delivery policies “must preserve what we have until we have clarity of where we are going.”2

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1 National Rural Health Association (NRHA), The Future of Rural Health, February 2013 (page 7).
2 Ibid
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The TAG has worked to develop alternatives for communities whose need for and ability to sustain services does not fit the current CAH structure. Alternatives must be available to communities to preserve access to primary health services, avoid the complete closure of existing hospitals and prevent the negative impacts on the community’s health and local economy. The TAG proposes a concept that would offer “a sustainable option for rural areas to provide preventive and primary care, chronic disease management and emergency services; serving as an access point, and coordinating care for the individual when higher level services are needed.” The focus of resources would move from the traditional episodic care while assuring continued local access to primary care, urgent and emergency services, a new transitional care service and a continued role as a driver and leader for health in the community.

A New Concept

The concept focuses on ambulatory and initial assessment and intervention services. The TAG attempted to focus on core, essential services for communities that do not have the volume of patients locally to sustain what has evolved as the CAH. Community needs and data driven decision strategies would identify the services for which volumes allow the highest level of patient safety and quality. This process would align the structure for service delivery with community or service area need. New terms have been suggested as the traditional terms relate directly to current regulatory language. The TAG has utilized terms that describe the service itself, thus avoiding the assumptions and definitions now codified in regulation. Using descriptive terms has allowed the TAG to think creatively and effectively about what may fit and address the particular challenges in Kansas, rather than the current silos developed by regulation and payment.

Two models emerged as potential opportunities that provide alternatives to a CAH. The options are: 1) Primary Health Center (PHC) – a 12-hour per day facility; and 2) Primary Health Center (PHC) – a 24-hour per day facility with or without extended care. Both options would:

- Serve as the center for health care in a small community, providing services to patients up to the inpatient admission criteria;
- Provide ambulatory, urgent and emergency services for the same hours each day, open to the community every day of the year to provide the service array most needed and sustainable by the community;
- Focus their efforts on the primary care needs of the community;
- Have a formal relationship with a “partner organization” to assist with operational and clinical aspects of delivering services to their community; and
- Be supported by a robust EMS plan.

The models function as either a new provider type that fills the gap between Rural Health Clinics (RHC) or Federally Qualified Health Centers (FQHC) and a truly sustainable CAH or a refined version of CAH that can be sustainable in a very low population area.
In addition, “transitional care” could be provided in the PHC 24-hour facility. These services are envisioned as an opportunity to serve patients who would transition to home or need a protracted plan of care. These patients would not require an acute level of care but need to be monitored and receive services for a length of time longer than a normal ER or clinic visit. The PHC 24-hour option could offer transitional care if this meets a need in the community or service area. During transitional care, care coordinators would work with the patient, other providers and their family, if available. They would prepare the patient for discharge and develop and implement a care management plan that would assist the patient with medications, follow up care, a more permanent care setting if necessary and prevent further acute admissions and emergency situations when possible. Transitional care in this model should not be confused with long term care, today’s “swing bed” care, nor is it a place where people would live.*

Currently, a patient that needs swing bed service must have a 3-day inpatient acute admission and then be admitted to a swing bed status or admitted to a nursing home. We believe this requirement is not necessary in most cases; therefore, would not be a requirement of the PHC model. Patients would be accepted into transitional care directly from the emergency room, primary care visit or another hospital after an acute stay.

The model envisions a payment method for a PHC that would incentivize an integrated health system at the local level rather than the current CAH payment method that carves out and consequently dis-incentivizes integration. Payment would be global or inclusive in nature for all core services and subsidized through a federal grant and local support, recognizing the importance of access to care and maintaining the needed community service such as emergency and EMS services.

*Note: Long-term care living settings are currently part of many CAHs in Kansas. These services fulfill a local need. They are also low volume, and communities struggle financially to sustain them. Some alternative will be needed to identify and fulfill community needs.
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Community needs and data driven decision strategies would identify the additional services for which volumes allow the highest level of patient safety and quality. This process would align the structure for service delivery with community need. It would provide the alternative in the all-or-nothing decisions communities currently face as they struggle to sustain a CAH.

A complete discussion and presentation of the PHC models and their development can be found in a white paper “Sustaining Rural Health Care in Kansas – The Development of Alternative Models” at http://www.kha-net.org/FurtherInformation/DownloadsRuralIssuesCriticalIssues/d129578.aspx.³

Development of the Test

In order to further inform the concept of the two PHC models, the TAG commissioned a “paper test.” The test was conducted using volunteer CAHs and examples of the staffing, services, costs, clinical considerations, potential payments and other factors that should be considered when moving to a new model. The TAG solicited volunteer CAHs that would be willing to supply financial, clinical and other operational data to facilitate the testing. Participation in the test was completely voluntary and did not obligate the organization to change its current delivery method or status.

Eleven hospitals indicated an interest in serving as a test site. The grant provided by the UMHMF originally called for four sites. Five CAHs ultimately stepped forward to participate in the test of the models, and the funding was able to accommodate all five. These hospitals signed a formal agreement to provide the support and information needed to conduct a paper test of how the model would play out in their particular circumstances. Again, no local transition or implementation was required of the test sites.

Table 1: Test Sites

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Community</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edwards County Hospital</td>
<td>Kinsley</td>
<td>Edwards</td>
</tr>
<tr>
<td>Wilson Medical Center</td>
<td>Neodesha</td>
<td>Wilson</td>
</tr>
<tr>
<td>Washington County Hospital</td>
<td>Washington</td>
<td>Washington</td>
</tr>
<tr>
<td>Ellinwood District Hospital</td>
<td>Ellinwood</td>
<td>Barton</td>
</tr>
<tr>
<td>Fredonia Regional Hospital</td>
<td>Fredonia</td>
<td>Wilson</td>
</tr>
</tbody>
</table>

The five hospitals are generally representative of rural communities in Kansas. Following are a few of the community characteristics:

³ Sustaining Rural Health Care in Kansas – The Development of Alternative Models, Kansas Hospital Association Rural Health Visioning Technical Advisory Group, March 2015
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Table 2: Test Site Demographics

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Edwards County Hospital</td>
<td>96</td>
<td>19.3%</td>
<td>12.9%</td>
<td>3,030</td>
<td>19.3%</td>
<td>4.9</td>
<td>23.0%</td>
<td>65 years or older</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Wilson Medical Center</td>
<td>91</td>
<td>20.1%</td>
<td>17.8%</td>
<td>9,028</td>
<td>20.1%</td>
<td>6.5</td>
<td>21.4%</td>
<td>65 years or older</td>
<td>20.2%</td>
<td>20.2%</td>
</tr>
<tr>
<td>Washington County Hospital</td>
<td>7</td>
<td>23.6%</td>
<td>10.2%</td>
<td>5,598</td>
<td>23.6%</td>
<td>6.5</td>
<td>20.5%</td>
<td>65 years or older</td>
<td>19.3%</td>
<td>19.3%</td>
</tr>
<tr>
<td>Ellinwood District Hospital</td>
<td>86</td>
<td>17.3%</td>
<td>13.9%</td>
<td>27,385</td>
<td>17.3%</td>
<td>6.5</td>
<td>21.4%</td>
<td>65 years or older</td>
<td>20.0%</td>
<td>20.0%</td>
</tr>
<tr>
<td>Fredonia Regional Hospital</td>
<td>91</td>
<td>20.1%</td>
<td>17.8%</td>
<td>9,028</td>
<td>20.1%</td>
<td>6.5</td>
<td>20.5%</td>
<td>65 years or older</td>
<td>20.5%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Kansas</td>
<td></td>
<td>14.3%</td>
<td>13.9%</td>
<td>34.9</td>
<td>14.3%</td>
<td>34.9</td>
<td>14.3%</td>
<td>65 years or older</td>
<td>14.7%</td>
<td>14.7%</td>
</tr>
</tbody>
</table>

1 - www.countyhealthrankings/kansas
2 - Ranking out of 101
3 - http://quickfacts.census.gov
4 - www.kansashealthmatters.org

The test hospitals are all CAHs. As typical CAHs they have some variation in services they provide. For instance, two of the facilities operate a distinct part inpatient psychiatric facility and one operates a regional wound care center. Other variations and unique circumstances will be identified later in the discussion of “normalizing” the hospitals for the test.

The following table shows some basic operating characteristics of the five hospitals. The remainder of the report will show all the test sites individually, but will blind the data to abide by the participation agreement to utilize local data. As with most rural hospitals, a substantial portion of their gross revenue from patient services comes from outpatient services. Unique services in some instances dilutes the percentage of outpatient services.

Swing bed days are segregated between SNF-type (Medicare) and NF-type (other payers and long-term residents). The nature of the swing bed services has some variation between the hospitals.
Table 3: Test Site Volume and Revenues

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beds:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>25</td>
<td>25</td>
<td>12</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>Inpatient psychiatric</td>
<td>-</td>
<td>9</td>
<td>10</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Acute discharges</strong></td>
<td>125</td>
<td>349</td>
<td>60</td>
<td>162</td>
<td>106</td>
</tr>
<tr>
<td><strong>Patient Days:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>404</td>
<td>949</td>
<td>153</td>
<td>514</td>
<td>308</td>
</tr>
<tr>
<td>Swing - SNF</td>
<td>780</td>
<td>237</td>
<td>671</td>
<td>1,398</td>
<td>316</td>
</tr>
<tr>
<td>Swing - NF</td>
<td>1,955</td>
<td>8</td>
<td>733</td>
<td>65</td>
<td>1,527</td>
</tr>
<tr>
<td>Total acute &amp; swing</td>
<td>3,139</td>
<td>1,194</td>
<td>1,557</td>
<td>1,977</td>
<td>2,151</td>
</tr>
<tr>
<td>Inpatient psychiatric</td>
<td>-</td>
<td>2,914</td>
<td>3,415</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>3,139</td>
<td>4,108</td>
<td>4,972</td>
<td>1,977</td>
<td>2,151</td>
</tr>
<tr>
<td><strong>Gross Revenue:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inpatient</td>
<td>1,744,432</td>
<td>6,023,296</td>
<td>4,773,676</td>
<td>6,114,587</td>
<td>1,196,323</td>
</tr>
<tr>
<td>Outpatient</td>
<td>2,705,843</td>
<td>10,705,584</td>
<td>5,297,757</td>
<td>16,169,292</td>
<td>3,989,094</td>
</tr>
<tr>
<td>Total</td>
<td>4,450,275</td>
<td>16,728,880</td>
<td>10,071,433</td>
<td>22,283,879</td>
<td>5,185,417</td>
</tr>
<tr>
<td><strong>Inpatient</strong></td>
<td>39%</td>
<td>36%</td>
<td>47%</td>
<td>27%</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Outpatient</strong></td>
<td>61%</td>
<td>64%</td>
<td>53%</td>
<td>73%</td>
<td>77%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>FTE:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>57.11</td>
<td>107.49</td>
<td>60.46</td>
<td>109.50</td>
<td>39.67</td>
</tr>
</tbody>
</table>

Data source: 2014 Medicare cost reports
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The following graphs show the relation of the test hospitals to both the Kansas and United States median measures for CAHs. All data was extracted from the individual hospital reports from the Flex Monitoring Team.\(^4\) As shown in the Days Cash on Hand and Equity Financing graphs, several of the hospitals are arrayed near the Kansas and US median while the others are generally below the medians.

**Diagram 2: Test Site Days Cash on Hand**

![Diagram 2: Test Site Days Cash on Hand](image)

**Diagram 3: Test Site Equity Financing**

![Diagram 3: Test Site Equity Financing](image)

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\(^4\) CAH Financial Indicators Report 12th Issue, CAH Financial Indicators Report Team, Summer 2015
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As depicted on the following Total Margin and Operating Margin graphs, all five test hospitals are below the Kansas and US medians.

Diagram 4: Test Site Total Margin

Diagram 5: Test Site Operating Margin
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Despite the operating and total losses shown above, the average Medicare Acute Care Cost Per Day is generally arrayed with the medians with several above and several below.

Diagram 6: Medicare Acute Cost Per Day

As depicted by the above data, the five test hospitals are similar to Kansas and US CAHs. Therefore, the TAG is confident in using their data and experience in the development of the paper test of the PHC 12 and 24-hour models as being representative of CAHs in Kansas.

The testing process was funded by a grant to KHERF from the United Methodist Health Ministry Fund to further the understanding of potential new delivery and payment models for rural Kansas communities.

The test process was conducted using two different tracks that were run in tandem with each other. One track reviewed a sample of patient records at each hospital to evaluate the types of patients each facility treated and how the patient mix would fit within each of the two models. The second track evaluated the potential financial needs of each hospital using the TAG assumptions of the two models.

Clinical Evaluation

Working with clinical experts, a plan and process for evaluating patient needs and identifying opportunities for changes in patient care that may work within the Kansas Primary Health Center model was developed. Each of the test sites signed an agreement authorizing access to patient records on site for the purpose of documenting current patient types and services and identifying patients that could and could not be served within the Primary Health Center model.
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Each hospital was notified at least two weeks in advance of the clinical review being done. The hospital had the responsibility to notify support staff from HIM and IT to prepare access to the charts. HIM at each facility created an identification system that allowed the reviewer to assign a patient ID on each chart, but no actual patient numbers were to be used. The hospital retained the ID system that was developed. The hospital’s administration also identified HIM and IT staff that could be readily available to the team during their time on-site, assisting them as needed. Each hospital used different EHRs, and the documentation was recovered in a variety of ways.

Agreements were developed outlining the reviewer and hospital responsibilities. In addition, reviewers signed the appropriate HIPAA and security forms as needed by each facility.

Two nurse reviewers, Vicky McGrath, RN, BSN and Susan Roelfs, RN were retained to conduct the review. Ms. McGrath worked as lead reviewer assisting KHERF staff in designing the Access database and entry form for use during the review.

After an initial review of data and further discussion, it was agreed that three months of acute, observation, swing bed and emergency room charts would be reviewed at each hospital. The three months would be determined by each hospital and represent their three high-volume months. At least one would be a summer month to assure a varying patient need. The total number of charts reviewed depended on the hospital’s census and was different at each facility.

Actual cases reviewed totaled 946, just over 70% of which began as an emergency room visit as you can see by the charts below.

Table 4: Clinical Cases Reviewed

<table>
<thead>
<tr>
<th>Clinical Chart Review - Primary Admit Type</th>
<th>Test Hospitals</th>
<th>Total</th>
<th>Emergency</th>
<th>Observation</th>
<th>Acute</th>
<th>Swingbed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>210</td>
<td>150</td>
<td>6</td>
<td>32</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>255</td>
<td>219</td>
<td>2</td>
<td>34</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>205</td>
<td>158</td>
<td>22</td>
<td>14</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>109</td>
<td>9</td>
<td>21</td>
<td>46</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>167</td>
<td>130</td>
<td>14</td>
<td>21</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>All Sites</td>
<td>946</td>
<td>666</td>
<td>65</td>
<td>147</td>
<td>68</td>
<td></td>
</tr>
</tbody>
</table>
Note: Two unavoidable issues effected Site B cases. First, the computers crashed at the end of the visit, limiting the number of swing bed cases that could be reviewed. Second, Site B had a significantly higher number of ER visits that could not be fully completed during the time allotted for their on-site review.

A review of each acute, observation and emergency room chart in the identified months would include the assigned patient identifier, date, day of week & time patient arrived at facility, patient’s age, primary insurance, mode of transportation (private vehicle or ambulance), level of care (acute, observation or ER), diagnosis, disposition, and whether or not the patient was transferred. Two additional areas in the database included further physician review needed and an area for notes/comments.

If any chart did not fit in one of the listed categories, it was flagged as needing further physician review. A physician reviewer was then contacted by phone to discuss the patient’s chart and findings at the agreed time arranged prior to the review date.

The following diagrams show some of the key findings and observations from the clinical review.
New Rural Model: Primary Health Center

Diagram 9: Transfer Percentage

Of the 946 actual cases reviewed overall, only 6% were transferred out of the facility for a higher level of care. Site C has no procedure or surgical capacity, which accounts for a higher percentage of transfers while site E has an active surgical staff. Even so, the relatively low transfers indicate a “fit” with the needs of the community.

Diagram 10: Patient Age

While countywide population age 65 and over averaged higher than the state as a whole, the patient age mix was even higher, averaging 40 percent age 65 and over. Site D has an active wound care service and expectedly had a higher age demographic.
Combined, all sites had high patient loads on Sunday – primarily ER visits.

Diagram 12: Length of Stay

To determine the impact of transition to the PHC, the research team with clinical advisors determined that ER visits and observation lasting less than 12 hours would constitute the patient population of the PHC-12 facility.
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Also, while recognizing that the 12-hour model was intended to be less than a 24-hour operation, cases that began and ended any time between 6 a.m. and midnight were deemed eligible for the 12-hour model. Overall, just under 70 percent of patients in the test sites would be served using that assumption. Site D is again an outlier due to its larger volume of wound care associated patients. As noted earlier, Site B reviews did not include swing bed patients, which shows its percentage servable as higher than it likely would be.

**Diagram 13: Patient Eligibility for PHC–12**

For the PHC 24-hour facility, it was assumed that ER patients and 1-2 day acute patients could likely be treated in the non-acute model. In addition, all swing bed stays less than 14 days were included in the test. The 1-2 day acute stay patients were included based on discussions with clinical experts. It is assumed that some of the 1-2 day stay patients may have required a higher level of care, and some of the 3-day stay patients may have been treated in transitional care if the 3-day acute stay requirement was removed. Cases that began at the ER and ended as acute with length of stay longer than 2 days were not included. Based on these assumptions, the PHC 24-hour facility could have served 73 percent of the patients in the test. The outliers were Site D, due to wound care, and Site E, at almost 90 percent with low acute length of stay and high numbers of what would be transitional care.

These may be an imperfect set of assumptions and likely result in a more conservative estimate. If a regional EMS plan is in place and patients make their own determination of the level of care needed, this conservative estimate may be closer to reality. On the other hand, if the actual need of patients can be handled in a transitional care service and the 3-day acute stay requirement waived, the estimate of patients who could continue to be served in the PHC 24-hour model may be much higher. Much more in-depth clinical data would be needed to identify patients in this middle range to be classified. Also, it should be noted that in no way are these assumptions a comment on care given as each patient was assessed by physicians and mid-levels and met current criteria required for the services provided.
Consequently, the clinical team believed based on their reviews that the majority of the patients utilizing the current test sites could be cared for in either the PHC 12 or 24-hour models.

**Financial Evaluation**

KHERF engaged the services of several consulting firms to assist with the financial analysis. The consultants were engaged through the test hospitals and had knowledge of the hospital financial and operational characteristics. Joseph M. Watt and Jason Barb of BKD; Paul Bowerman of George, Bowerman and Noel; Eric Otting of Wendling Noe Nelson and Johnson; and Eldon Schumacher of Great Plains Health Alliance; led by Tommy Barnhart, Ten Mile Enterprises; formed the expert team that designed, conducted and consulted on the findings. Each of the financial experts provide cost report and financial services to one of the test site hospitals and/or other hospitals in the state. Their background and experience were invaluable to the project.

The primary goals of the financial team were to evaluate the following with regard to both the PHC 12 and 24-hour models:

- In concert with TAG concepts, the basic services that would be provided in the model;
- The amount of staffing and financial resources that the individual hospitals would need in order to efficiently and effectively operate as the PHC 12 and 24-hour model;
- Impact on capital needs of the hospitals;
- Costs of conversion to the models; and
- Potential payment concepts for the models.
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Since the TAG concept focuses on ambulatory and initial assessment and intervention services, both models would have primary care, associated ancillary and emergency services available during the respective 12 or 24 hours per day they are open. In addition, EMS, telehealth, and care coordination are considered essential components of the service. Transitional care is considered available only in the 24-hour model.

The hospitals were provided a list of financial and operational information needed for the analysis. The information consisted of cost reports, audit reports and operational statistics such as full time equivalents (FTE), lists of services, etc. The hospitals provided their respective fiscal year 2014 data for the analysis. Various data was analyzed and discussed electronically and at meetings by the financial team to derive the final portrayal of the analysis.

The financial team concluded that because of some dissimilar services that are provided by the five test hospitals, the staffing and costs of certain services should be eliminated in the analysis. Likewise, there are certain services that the team believed would be essential to incorporate into the models. Consequently, the staffing and financial needs of the hospitals were “normalized” in order to establish similar circumstances and needs.

The team concluded that the inpatient psychiatric services were not representative of the PHC concept and should therefore be eliminated. In addition, one site operates an aggressive and unique wound care program that is not similar to services the other four hospitals provide and is not consistent with the PHC concepts. Consequently, the staffing and cost estimates for the inpatient psychiatric and wound care services were eliminated in the analysis. The elimination of these from the analysis does not intend to indicate that these valuable services are not needed in their communities, but simply that they are not representative of the primary care emphasis of the PHC models developed by the TAG and would not be considered core services for the model.

Services that some of the test hospitals operate that others don’t include rural health clinic (RHC) and EMS. Since primary care is considered an essential service for both the PHC models, the team normalized the staffing and costs of primary care services (not identifying it as rural health clinic). Likewise, ambulance/EMS services are considered an essential service for both the models; therefore, EMS staffing and costs were also normalized.

Care management is a service that the TAG believes is essential in both models. Since none of the test hospitals identified a distinct and comprehensive care management and coordination program, the team added staffing and costs into both models for this service. Like care management, the TAG considered a robust telehealth program to also be essential. Therefore, operating costs, but no additional staffing, were added to each model for telehealth.

Because of the wide variations in the resulting staffing and financial needs, the team believed it necessary to show a “base model” for both the 12 and 24-hour models. This could be described as that amount necessary to provide the respective services and maintain the facility – the base necessary to “turn the lights on.”
New Rural Model: Primary Health Center

The team considered the capital costs and potential future needs for retirement of current debt and replacement of equipment and facilities. Since the five hospitals have varying stages of facility renovation and replacement, equipment replacement and debt requirements, the team came to a normalization concept for capital for each model. The amount included would not, however, cover the entire financial needs for full replacement or debt service on newer facilities.

The total full time equivalent (FTE) staffing of the hospital ranged from 40 to 111, excluding the FTE for the two inpatient psychiatric units. The respective FTE amounts were reduced for RHC, ambulance and wound care. One hospital did not operate any of these unique services. Following these reductions, the FTE amounts for the “base” hospital ranged from 40 to 98.

The team estimated the following FTE for each of the respective services to normalize the operations of the PHC model. In these services there is no difference between the 12 and 24-hour model; 16 FTE were added to each scenario:

<table>
<thead>
<tr>
<th>Service</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance/EMS</td>
<td>6.0 (EMTs and support)</td>
</tr>
<tr>
<td>Primary care</td>
<td>8.0 (medical staff, nursing and support)</td>
</tr>
<tr>
<td>Care management</td>
<td>2.0 (professional and support)</td>
</tr>
<tr>
<td>Total FTE added</td>
<td>16.0</td>
</tr>
</tbody>
</table>

Each hospital estimated the number of current FTE that were employed that would not be required to operate both the 12 and 24-hour models. These reductions are shown as “other operational adjustments.” As expected, the other staff reductions are less for the 24-hour model than the 12-hour version. The other reductions for the 12-hour model would include services such as nursing, dietary, emergency and other staff required to provide round the clock services. The number of FTE required ranged from 33 to 67 in the 12-hour model and 42 to 92 for the 24-hour model. The team believed the significant variation is caused by community circumstances, ancillary services provided, such as therapy, and many other individualized operational considerations. The variations in operations of current and future models show that no one model will fit all communities.

The results of the staffing indicate that compared to the 12-hour model, the 24-hour model would utilize 7 to 25 additional FTE. These additional FTE can be characterized as needed to provide 24-hour emergency services and transitional care.

The team identified a base of 33 FTE for the 12-hour and 43 FTE for the 24-hour model as representing the number of staff required to provide the respective services. The base assumption is not intended to minimize the individual community needs and decisions that each organization would make in restructuring its operations. The following table shows the FTE scenarios.
The financial team estimated the financial resources needed by each hospital to operate as both the 12 and 24-hour model. Since personnel costs are the most significant portion of a hospital operation, the staffing changes described in the FTE section were a significant driver in the cost estimates.

The actual operating costs of the hospitals in 2014 ranged from $4.3 million to $13.5 million, demonstrating the varying nature of their services and operations. As with the FTE, the team determined to eliminate the unique services of inpatient psychiatric and wound care along with the existing ambulance and rural health clinic costs. Following these eliminations, the base costs ranged from $4.3 million to $11.7 million.
New Rural Model: Primary Health Center

The team estimated the basic costs to provide the core services considered essential in each model that was not provided or was eliminated as unique. Costs added for each service to both models are:

<table>
<thead>
<tr>
<th>Service</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance</td>
<td>$550,000</td>
</tr>
<tr>
<td>Primary care</td>
<td>1,100,000</td>
</tr>
<tr>
<td>Care management</td>
<td>150,000</td>
</tr>
<tr>
<td>Telehealth</td>
<td>100,000</td>
</tr>
<tr>
<td>Total costs added</td>
<td>$1,900,000</td>
</tr>
</tbody>
</table>

As with FTE, each hospital identified current costs that would not be necessary to operate in each of the models. These cost adjustments ranged from reductions of $2.0 million to $6.2 million in the 12-hour model and $.5 million to $5.1 million in the 24-hour model. Again the reductions to the 12-hour model were greater because of the elimination of 24-hour emergency and patient care services.

Following the adjustments, the estimated cost of operations for the 12-hour model ranged from $3.5 million to $8.0 million. The 24-hour model ranged from $3.9 million to $11.6 million. The increased 24-hour costs ranged from $.4 million to 3.5 million or a range of 12 percent to 44 percent additional costs. These variations demonstrate the different ancillary and support services expected by the organizations and the varying community needs. The additional 24-hour costs are largely attributable to round the clock emergency and transitional care services.

In addition to the operating costs of the hospitals, the financial team determined that a reasonable amount of financial resources is needed in each model for capital requirements. The team determined that because of the varying nature of the facility age, renovations and replacement of both buildings and equipment, a constant amount should be included for each model without regard to the 12 or 24-hour version. This constant amount is included to cover current or future debt payment of principle, facility and equipment renovation and replacement – an all-inclusive capital amount needed. The team determined $500,000 to be a reasonable amount to be added as an annual amount. The team believes that depending upon the local EMS needs, additional capital resources may be necessary in either the 12 or 24-hour model to adequately supply vehicles and state of the art equipment for robust EMS services. The team did not arrive at a capital cost estimate for this factor.

The team determined that the base model costs for services alone would be $4.2 million for the 12-hour model and $5.6 million for the 24-hour operation. The additional 24-hour costs are $1.4 million or 33 percent higher than the 12-hour. The total financial requirements, including capital needs, of the 12-hour model range from $4.0 million to $8.5 million and $4.4 million to $12.1 million for the 24-hour model. The team determined the base 12-hour model would require $4.7 million and $6.1 million for the 24-hour model inclusive of a base amount for capital needs.

The following tables show the operating cost scenarios and the addition of the capital needs to the operating costs resulting in the estimated total financial needs of both models.
Table 5: Normalization - Operating Cost

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Normalization</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY 2014 - audit</td>
<td>$5,971,129</td>
<td>$13,300,698</td>
<td>$8,548,781</td>
<td>$13,459,327</td>
<td>$4,299,187</td>
<td></td>
</tr>
<tr>
<td>Less:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulance</td>
<td>-</td>
<td>(619,019)</td>
<td>(156,238)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>RHC</td>
<td>(966,206)</td>
<td>-</td>
<td>(1,010,339)</td>
<td>469,939</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Wound care</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(1,310,592)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Inpatient psychiatric unit</td>
<td>(2,149,630)</td>
<td>(2,026,078)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total reductions</strong></td>
<td>(966,206)</td>
<td>(2,768,649)</td>
<td>(3,192,655)</td>
<td>(1,780,531)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Base costs</strong></td>
<td>5,004,923</td>
<td>10,532,049</td>
<td>5,356,126</td>
<td>11,678,796</td>
<td>4,299,187</td>
<td></td>
</tr>
<tr>
<td><strong>Add for 12 hour normalization:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulance</td>
<td>550,000</td>
<td>550,000</td>
<td>550,000</td>
<td>550,000</td>
<td>550,000</td>
<td></td>
</tr>
<tr>
<td>Primary care</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td></td>
</tr>
<tr>
<td>Care management</td>
<td>150,000</td>
<td>150,000</td>
<td>150,000</td>
<td>150,000</td>
<td>150,000</td>
<td></td>
</tr>
<tr>
<td>Telehealth</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total 12 hour add normalization</strong></td>
<td>1,900,000</td>
<td>1,900,000</td>
<td>1,900,000</td>
<td>1,900,000</td>
<td>1,900,000</td>
<td></td>
</tr>
<tr>
<td><strong>Other operational adjustments to 12 hour</strong></td>
<td>(3,430,093)</td>
<td>(6,161,790)</td>
<td>(2,438,299)</td>
<td>(5,508,065)</td>
<td>(1,993,089)</td>
<td></td>
</tr>
<tr>
<td><strong>Total 12 hour</strong></td>
<td>3,474,830</td>
<td>6,270,259</td>
<td>4,817,827</td>
<td>8,070,731</td>
<td>4,206,098</td>
<td>4,200,000</td>
</tr>
<tr>
<td><strong>Add for 24 hour normalization:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambulance</td>
<td>550,000</td>
<td>550,000</td>
<td>550,000</td>
<td>550,000</td>
<td>550,000</td>
<td></td>
</tr>
<tr>
<td>Primary care</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td>1,100,000</td>
<td></td>
</tr>
<tr>
<td>Care management</td>
<td>150,000</td>
<td>150,000</td>
<td>150,000</td>
<td>150,000</td>
<td>150,000</td>
<td></td>
</tr>
<tr>
<td>Telehealth</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total 24 hour add normalization</strong></td>
<td>1,900,000</td>
<td>1,900,000</td>
<td>1,900,000</td>
<td>1,900,000</td>
<td>1,900,000</td>
<td></td>
</tr>
<tr>
<td><strong>Other operational adjustments to 24 hour</strong></td>
<td>(3,020,145)</td>
<td>(5,136,239)</td>
<td>(1,191,541)</td>
<td>(1,977,474)</td>
<td>(556,882)</td>
<td></td>
</tr>
<tr>
<td><strong>Total 24 hour</strong></td>
<td>3,884,778</td>
<td>7,295,810</td>
<td>6,064,585</td>
<td>11,601,322</td>
<td>5,642,305</td>
<td>5,600,000</td>
</tr>
<tr>
<td><strong>Percent model to FY 2014:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 hour</td>
<td>58.2%</td>
<td>47.1%</td>
<td>56.4%</td>
<td>60.0%</td>
<td>97.8%</td>
<td></td>
</tr>
<tr>
<td>24 hour</td>
<td>65.1%</td>
<td>54.9%</td>
<td>70.9%</td>
<td>86.2%</td>
<td>131.2%</td>
<td></td>
</tr>
<tr>
<td><strong>Additional costs of 24 hour model compared to 12 hour model:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,400,000</td>
<td>409,948</td>
<td>1,025,551</td>
<td>1,246,758</td>
<td>3,530,591</td>
<td>1,436,207</td>
<td></td>
</tr>
<tr>
<td><strong>Percent additional 24 hour costs to 12 hour</strong></td>
<td>11.8%</td>
<td>16.4%</td>
<td>25.9%</td>
<td>43.7%</td>
<td>34.1%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>
The payer mix of the hospitals is relatively consistent with two sites having the largest variations. The mix is indicative of the populations served by these hospitals. The team decided to establish a standard payer mix for models – the same for both 12 and 24-hour models. The following table is the payer mix the team considered representative for the major payers.

Table 7: Payer Mix

<table>
<thead>
<tr>
<th>Payer percent - net revenue:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare</td>
<td>72%</td>
<td>62%</td>
<td>67%</td>
<td>69%</td>
<td>55%</td>
<td>67%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>7%</td>
<td>8%</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Insurance</td>
<td>13%</td>
<td>27%</td>
<td>24%</td>
<td>22%</td>
<td>34%</td>
<td>24%</td>
</tr>
<tr>
<td>Self pay</td>
<td>8%</td>
<td>3%</td>
<td>5%</td>
<td>3%</td>
<td>9%</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Although the TAG concept includes a partner organization in the model concept, the team could not determine the extent of cost savings that may be attributable to such an arrangement. The nature of partnering arrangements would likely vary significantly among the communities.
New Rural Model: Primary Health Center

Following the completion of the financial analysis, the team received the publication of the Estimated Costs of Rural Freestanding Emergency Departments by the NC Rural Health Research Program. The brief explains the concept of a rural freestanding emergency department (RFED) and estimates the costs of operating an RFED under three different volume scenarios (low, medium and high volumes). The estimates for FTE staffing cited is 47 FTEs for low, 64 FTEs for medium and 90 FTEs for high volume RFEDs. The estimated operating costs cited are $5.5 million for low, $8.8 million for medium and $12.5 million for high volume RFEDs.

Although the TAG financial team did not estimate any specific levels of service volumes in the PHC models, the estimated ranges of FTEs for the PHC 24-hour model of 42 to 92 FTEs are within a reasonable range as those cited in the RFED brief. In addition, the range of operating costs for the PHC 24-hour model of $3.9 million to $11.6 million is also reasonably close the range cited in the brief.

While there are differences in the development of the PHC model and the RFEDs cited in the brief such as EMS, primary care and other community-oriented needs of therapy and various ancillary services, it is interesting that the staffing and operating costs of the PHC 24-model and the RFEDs are within the same range.

Payment Concepts

The financial team considered various payment types for the models.

The team believes that although some form of cost reporting will be required of the new models, the existing cost reporting rules can’t be applied to these new models. Therefore, descriptions of cost-based payments are not intended to be similar to current cost reporting rules and requirements.

The following table is a depiction of the deficit if each of the major payers (Medicare, Medicaid and insurance) paid 100 percent of their respective portion of normalized costs based on their payer mix. Self-pay payments are estimated at 87 percent based on the payment history of the hospitals. In this scenario the deficit represents the capital requirements and a portion (13 percent) of the cost for self-pay patients. The unmet need is approximately $500,000 in both models.

Note that Kansas has not expanded Medicaid.

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5 Estimated Costs of Rural Freestanding Emergency Departments, Findings Brief, NC Rural Health Research Program, November 2015
The following table shows the deficit if the payers participate fully in the capital requirements. The deficit represents a portion (13 percent) of the total financial requirement attributed to self-pay patients. In this depiction the unmet need would be reduced to essentially a breakeven – the uncollected portion of the self-pay patients.

Table 9: Model Payment Needs
Although the TAG considers local support vital to the continued sustainability of the local healthcare model, the team did not consider other sources of revenue such as local taxes part of the payment models.

The following table shows the general sources of non-patient revenue from 2014 data provided by the hospitals. As shown, local tax revenues range widely from $150,000 to $840,000 annually. While a local grant or other support will be a component of the payment for this model, the wide variability of these test sites precluded a specific estimate of a support factor.

### Table 10: Current Local Support

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other Incomes:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating incomes</td>
<td>163,349</td>
<td>206,818</td>
<td>319,354</td>
<td>300,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Investment income</td>
<td>-</td>
<td>14,617</td>
<td>964</td>
<td>30,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Local taxes</td>
<td>840,000</td>
<td>581,882</td>
<td>305,100</td>
<td>350,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Grants, contributions, etc.</td>
<td>-</td>
<td>169,745</td>
<td>128,035</td>
<td>20,000</td>
<td>10,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,003,349</td>
<td>973,062</td>
<td>753,453</td>
<td>700,000</td>
<td>176,000</td>
</tr>
</tbody>
</table>

### Payment Considerations

Because of the significant difference of the operational aspects of the PHC models compared to the current provider-types, the financial team could not reach a definitive conclusion regarding the method of payment for the PHC 12 and 24-hour models.

The team did reach consensus on several concepts that must be considered in the development of a payment methodology.

First the team verified a number of assumptions made by the TAG:

1. Payers: All federal, state and commercial insurers/payers must participate in the payment methodologies.
2. Licensure and Certification: Many current state and federal licensure and certification requirements must be changed or waived in order to create the new provider type.
3. Management Practices: The PHC should be required to use “best practices” for financial and operational management. There should be an incentive for cost effectiveness.
4. Partner Organization: The PHC should be required to enter into an agreement with a partner organization. The partner organization should be an active participant with the PHC and be able to provide certain services to assist management and clinical integration. Such assistance should provide cost containment at the PHC and avoid unnecessary duplication of patient and support services.
New Rural Model: Primary Health Center

5. Quality, Patient Satisfaction and Management Reporting: The PHC should be required to report quality, patient satisfaction and management measures relevant to their services and volumes.

6. Selection of Services: Services provided at the PHC should be based on a comprehensive data-based community needs assessment.

7. Voluntary Participation: Conversion of an existing CAH to a PHC must be voluntary. The PHC should be allowed to convert back to CAH status without regard to the then-current mileage or location requirements.

In addition, the financial team reached consensus on the following:

8. Cost Report: Existing cost report methodologies that yield reasonable cost reimbursement based on allowable costs will not be adequate to sustain the models. Payment of “cost” will not be sufficient.

9. Profit Opportunity: The payment methodology should allow the organization to make and retain a profit.

10. Uninsured and Bad Debts: The payment methodology must include funding for uninsured patients, bad debts.

11. Capital Needs – There will need to be a mechanism to allow for the costs of maintaining and upgrading the facility as service delivery and needs change.

12. Incentives: Based on reporting, a reward – penalty system should be established.

Possible Payment Model for Primary Health Center

The team considered the following components of potential payment methodologies. The concepts below are not mutually exclusive. A comprehensive methodology may contain several of the components.

- The following may be service and operational components on which a PHC payment methodology be based:
  - The PHC would be required to provide a set of core services such as emergency services, primary care, ancillary services, EMS, care coordination, telemedicine, transitional care, etc.
  - The PHC would submit an application that would include definition of the community service area, community need of the anticipated services, annual operating budget showing costs, capital needs, sources and amounts of revenue and amount of base funding requested.
  - The PHC would be required to participate in quality, outcomes, patient satisfaction and management reporting which would be part of a value-based incentive and risk program. The measures of such a program would be those determined to be relevant to small rural facilities of the nature of the PHC operations.
  - If the PHC provides services other than the approved core services, it must establish a financial means of paying for those services. These services would not be paid as part of the base funding or cost-based methodology but would be paid on the usual fee for service model applicable for the respective type service (such as inpatient psychiatric).
The following may be components of the methodology used to determine the payments to the PHC:

- A base amount of funding should be established to provide sustainable cash flow to the PHC during the year. The amount of the base funding would be determined using the application of the PHC and the approved set of core services. The base funding would include an amount for capital needs in addition to the anticipated operating expenses offset by anticipated revenues. These payments may be made in equal payments (i.e., monthly).
- The base funding should be a multi-year award to provide sustainability based on the identified core services.
- Payments for direct patient services should be paid, in addition to the base funding, on a standard methodology such as:
  - Outpatient and emergency claims on a PPS hospital basis of Medicare’s Ambulatory Payment Classification and fee schedule.
  - Primary care on physician fee schedules.
  - EMS on standard ambulance fee schedule.
  - Transitional care in increments of 4-6 hours similar to the Frontier Extended Stay Clinic (FESC) demonstration.
  - Transitional care in excess of 24-hours at a median CAH swing bed rate.
- The PHC should be eligible for incentives based on its performance against quality, outcomes, patient satisfaction and management measures. Likewise, the PHC should be subject to reductions in payments if its performance against the measures is not satisfactory.
- The PHC should be eligible to participate in programs such as Medicare Shared Savings Programs and other non-traditional payment programs without jeopardizing any portion of its base funding.
- Provision should be made to allow the PHC to apply for emergency funding, in excess of the base funding, in the event of defined circumstances such as an Act of God that is beyond the control of management.
- The PHC should be allowed to earn a profit on the operations, from whatever source, provided it is meeting its obligations of core services as outlined in the submitted application. Profit may come from operating non-core services, grants, contributions, operating efficiencies, increased utilization, etc. Such profit would not decrease the base funding during the multi-year award.

- Local support, in the form of a community grant or tax support should be required to show community commitment to assuring continued health services.
- All payers including federal programs, state programs and commercial insurance payers should be encouraged to participate in a fair and equitable manner. Individual patient responsibilities should likewise be set in a fair and equitable manner.
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Conclusion

These findings are a result of the many hours of contemplation, discussion and analysis by the Kansas Hospital Association Rural Health Visioning Technical Advisory Group and its affiliated advisors. The TAG set forth seven principles for a sustainable rural health delivery system as outlined in the background section on Page 6. The principles encompass three main themes:

- Can a new model be developed that can serve the local communities and meet their needs?
- Can the new model be financially feasible?
- Can a new payment system be developed to provide the proper financial support to keep the model sustainable?

The results show that although there are still many unanswered questions and many details yet to be determined, the two models portrayed in this document can meet the themes above and the seven principles. The clinical review showed that the majority of patients can still receive services locally and the financial analysis found that financial requirements can reduce the cost from the traditional CAH. The Primary Health Center 12 and 24-hour models can work in some Kansas communities and indeed some communities nationwide. Further development of these models will require the collaborative support of many organizations and governmental agencies both statewide and nationally.

In addition, even if the models are approved and available, each community will need to make a community-based decision about which to adopt. In fact, there will be many communities that will not be attracted to either. As with the introduction of the Critical Access Hospital model, it may be several years before the new models are widely accepted as an alternative to the age-old hospital provider type. Change will be difficult for some communities to embrace, now as in the past.

The purpose of this project is to inform not only KHA but those individuals and agencies that are seeking new methods of health delivery and payment for rural Kansas and the country. That purpose has been accomplished. Lawmakers and agencies are encouraged to look seriously at these models as potential solutions and make them available to communities before it’s too late and existing struggling hospitals must close and leave the community without needed healthcare services.