Introduction

Kansas, a state with 105 counties and 100 local health departments, serves a population of 2,911,641 as of July 1, 2015. The US Census Bureau estimates that this is a population increase of 2.1% since 2010. Across those 105 counties, approximately 65% are designated as frontier or rural. This population dynamic helps to explain why the state and county public health departments in Kansas have been at a disadvantage in providing population estimates of health status data to the public and policy makers using a BRFSS sample size of only 8000 individual interviews. The ability to understand the health status of individuals within these rural and frontier counties is hampered by lack of data that captures population health status. In 2008 the Kansas Health Foundation provided a grant to the Kansas Department of Health and Environment to expand the sample to 16,000 and create more accurate county and multi county population health estimates for use in public health planning and action.

The Kansas Health Foundation (KHF) contracted with Dr. Bobbie Berkowitz in 2009 to monitor the utilization and effectiveness of the expansion of the Behavioral Risk Factor Surveillance System (BRFSS) data collected by the Kansas Department of Health and Environment (KDHE) between 2009 and 2016. The grant from KHF enabled KDHE to double the number of interviewees in years 2009, 2011, 2013, 2015, and 2017. The data from 16,000 interviews would be available for use in years 2010, 2012, 2014, 2016, and 2018. KDHE actually interviewed 18,000 individuals during each of the data collection cycles. KDHE was also funded to deliver training and technical assistance to local health departments to increase their effectiveness in communicating information to the public and policy makers on population health in Kansas including critical public health challenges.

Overview of Scope of Work and Evaluation Methodology

Purpose

The evaluation had two primary purposes. The first was to gather information during the sampling years and the years when the data was available to: examine challenges and opportunities with the sampling and interviewing process, evaluate the extent to which local public health departments were able to access BRFSS data relevant to their populations, and understand whether the expansion enabled local
public health departments to more fully utilize the BRFSS data for planning, prioritization, strategy, communication, policy guidance, collaboration with partners, and guiding health improvement initiatives across Kansas. The second purpose was to provide feedback to KHF and KDHE about the perceived challenges with the expansion, primarily from the perspective of local health departments.

**Methodology**

During the early stage of the evaluation data was collected on a number of process and outcome indicators. Beginning in 2009 a combination of surveys, interviews and focus groups were used to understand how the utilization of BRFSS data was changing over time and whether there was a growing understanding within local public health departments on the power of this data to increase the effectiveness of local health grant making and policy change.

During 2009-2012 KDHE began to track similar data as my survey so this method was no longer necessary and reduced the time required to conduct and analyze survey data. Therefore, during 2013 through 2015 the method for data collection primarily became on-site visits to a select group of small, medium and large local health departments, KDHE, and several working groups (Kan-PICH Partners, Kansas Association of Local Health Departments, University of Kansas) to gather qualitative data about the collection and use of BRFSS data, and the impact of the BRFSS expansion on planning, communication, grant writing, media contacts, the ability to prioritize public health programs and the relevance of public health data to policy makers.

**Chronology of Activities**

2009-2010: survey instruments, interview questions, sampling methodology were developed and baseline surveys and telephone interviews were conducted and analyzed. An onsite visit was made to KDHE in Topeka.

2011: Key informant in-person interviews were conducted and analyzed.

2012: Round two of in-person interviews and meetings were conducted with KALHD and with members of the Kan-PIC task force and KDHE project staff.

2013: Round three of in-person key informant interviews were conducted and analyzed.

2014: In-person sessions conducted with senior leaders in large local health departments. Meetings were held with KALDH leadership and KDHE project staff.

2015: In-person interviews were conducted with senior leaders in mid and small size health departments. Meetings with KALDH leadership and KDHE project staff.
Evaluation Findings by Year

2009-2010

During 2009 and 2010 the primary methodology for data collection was an email survey and telephone interviews with key informants to gather information from local health department leaders, KALDH, KDHE, KU and community organization leaders on their knowledge and use of the BRFSS data. Response rates for the email survey were very poor with data collected from a limited sample of local health departments.

State key informants reported that they were not able to link local and regional data to create a more accurate picture of population health. They did use BRFSS data for grant applications at the state level and community health assessments. They felt that an expansion of BRFSS would increase their overall future effectiveness with the community health assessment process and enhance their opportunities to apply for public health accreditation.

Local health key informants voiced concerns with the limited communication between the state and local health departments about existing data and limited opportunities for training on the use of BRFSS data. They did not frequently use BRFSS data for grants or reports and when they did want to use it they generally requested reports from KDHE. Local health department key informants generally limited use to setting programs priorities and voiced concerns about the difficulty of not having local data. If they had local data they would use it for program planning, community health assessments and for detecting disparities.

Community based organizations wanted BRFSS data for priority setting, planning community initiatives, setting baselines for training, grants and research, and for planning. They voiced concerns about their limits to fully understand and appreciate the data and suggested that new tools to enable them to manage and use the data such as GIS capacity and the ability to do environmental scans would be useful. The Kansas Health Institute would like to see more involvement from policymakers in the use of local health data whom they felt have a limited understanding of the BRFSS data. They would like to see this data used for the county health rankings, score cards, health profiles, and an increase in the effectiveness of analysis and grant writing and communicating with the media and policymakers. The University of Kansas noted that there was a real need for data analysis, not just the raw data. They discussed the limitations of detecting disparities or assessing the variation across counties in terms of health status with the current BRFSS data. They felt the data would be very useful for improving grant applications and would expand the use of data by students and researchers. The also noted that there was a need to improve the KDHE web interface and portal for data.

In meetings with KDHE BRFSS staff they noted the importance of using BRFSS data for policy, assessing and monitoring health status, program development and evaluation, public and profession awareness of data capability, and setting state and
local priorities. The expansion of the BRFSS capacity would enable them to move forward with these plans.

2011

Another round of surveys was conducted with a low return rate. As a result the methodology was changed to on-site key informant interviews rather than email or telephone surveys. However, the survey data did confirm what was reported during the 2009 and 2010 surveys.

Community organizations occasionally used BRFSS data via special requests to KDHE. They continued to use the data for grant proposals and strategic planning. They were interested in a web portal to access the data so they wouldn’t need to ask KDHE for reports and it would enable them to customize their own reports. Local organizations still do not use BRFSS data regularly but would use it more if it had relevance to planning functions. Some of the organizations interviewed do use the data regularly; primarily for grant writing, strategic planning, evaluation, and policy input. They would like to use the data to target populations who experience health disparities and to mobilize communities around public health accreditation and service distribution. They occasionally reviewed data via the local health departments for the development of grant proposals and strategic planning. When they needed data on a regular basis, they accessed it through a request to KDHE.

Local health departments continued to request data from KDHE. Although they wanted to use BRFSS data for community health assessment, grant writing, community health data dissemination to the public and policymakers, future strategic planning, program expansion, and accreditation, they had yet to make regular use of the data for these activities. They cited the need for training and navigation tools to make this possible.

A meeting was held with staff in KDHE to examine how they were using the data from the 2009 expansion. They had begun to use the local health data to set state level priorities and to design public health programs. They had begun to make multiple presentations to the local health departments about the expanded data and training for how to use the data.

During a meeting with the Kan-PIC group they discussed their intent to share the data with policymakers using the data reports. However, they were not yet sure how the data would be used by the policymakers. They were using six of the BRFSS indicators in their measurement set for Health Matters They expressed the opinion that this data may be more relevant for the state and local health departments than for policymakers who did not regularly use or access this data. But they felt strongly that the BRFSS data was very important for the community health assessment process. It was too early for them to see whether the data could be utilized for grant development or leveraging funding but anticipated that this value would grow overtime. The most important use of
the data would be to evaluate health status at a regional level which was not possible prior to the expansion.

2012

During a site visit made to Topeka in the later part of 2012, I met with the BRFSS staff at KDHE and attended a meeting of the Kan-PIC group to discuss their thoughts on whether the expansion was having an impact on utilization of BRFSS data at the local level.

Staff at KDHE reported that trainings were increasing in local health departments with 82% of local health departments trained in the use of BRFSS data. They had implemented coursework on the use of the evidence-based data available within the BRFSS data sets and had conducted technical assistance to local health departments to tailor the data to their individual needs. They reported that they underestimated the lack of data and IT capacity among local health departments that would enable them to apply the data to community health assessments in partnership with hospitals and for accreditation.

Members of the Kan-PIC group reported a growing awareness of the need for county level health data and that coalitions were beginning to use the data from BRFSS. They were not clear about whether the data was being used for priority setting since many local health departments were still focused on the delivery of safety net services. They also mentioned the limited data capacity among local health departments and wondered whether data relevance was a problem. Engaging with the media around the BRFSS data had not been realized and they thought perhaps local health staff lacked confidence to engage the media. They saw limited use of data for policy and perceived that the focus was still on downstream thinking about health care rather than prevention.

2013

During 2013 interviews were conducted at the KALDH mid-year meeting of local health departments, focus groups were held with local country health officials and interviews were conducted with the BRFSS “users group” within the local health departments. Meetings were also held with the BRFSS staff at KDHE.

At the time of these interviews, local health departments had BRFSS expansion data from 2009 and had just received the 2011 data. In general, the use of BRFSS data had slowly increased during the past two years. Local health department directors primarily used the data for community health assessments, community related presentations, chronic disease risk reduction grants, and in collaborative efforts with community partners (primarily hospitals via the community health assessment process) and to a lesser degree for strategic planning, communication with their boards of health and in limited situations for policy purposes. Interviews with local health department staff (data users) such as epidemiologists and preparedness experts showed a greater use of the data for planning, strategy, and programing. Some directors used the data to
review program effectiveness; however, it was unlikely that change could be detected yet. Interviews with local health department directors reflected an increase in utilization of country level data for planning purposes relative to previous interviews. It was clear that the greatest value of the BRFSS data expansion for local health department directors was the availability of country level data for those who had access.

The effectiveness of KDHE staff in reaching BRFSS users as well as local health department directors through website enhancements, presentations, consultation, and formal academic programing was increasing. Their capacity to control for the quality of the BRFSS data had been enhanced because they manage all of the interviewing internally within the department. The expansion had enhanced their own capacity to improve the quality of the data and also provided outreach to local health departments. The use of the Health Matters website as a portal to the BRFSS data had been effective. There was a great deal of enthusiasm among KDHE staff about the opportunities to use this data for strategic planning and policy although the local health department staff had yet to fully realize that potential. They raised concerns about the ability to track trends because the methodology for data collection changed for the 2011 data by adding cell phone users. KDHE had begun assisting local health departments with methods to enhance their ability to manage the data despite the change in methodology. KDHE reported that the overall capacity for surveys and quality control was increasing at the local level and they were continuing their dissemination and training. In 2013 KDHE began tracking use of BRFSS data on a survey with local health departments. They reported that access to data and data reports was occurring on an average of once every six months from the local health department sites and that access of data on the Health Matters site occurred about once a month.

2014

During the first several years of the grant, KDHE developed a highly refined process for the collection, evaluation, and analysis of BRFSS data along with a strong focus on quality control. Local health departments participated in a number of trainings and consultation with KDHE on the use of BRFSS data. Although progress had been substantial in a number of areas, the utilization of BRFSS data to communicate public health priorities and policy input was limited. There was, of course, significant variation across the counties, generally by size, as to their ability to work with BRFSS data much beyond disseminating the data. They continued to have limits in their capacity for data analysis, ability to partner with health systems for the community health assessment process. Adequate training for communicating with the media, program planning skills and an adequate knowledge base for policy impact were high need areas for training and technical assistance.

During a site visit in December of 2014 I met with two of the larger and higher capacity local health departments. The focus of those visits was to understand how BRFSS data was used for the purpose of informing community health assessments and
planning, grant writing, and informing the media and policy makers about the health status of a county's population.

One of the counties had worked with their not for profit hospital on a community health assessment in 2011 and anticipated that the next assessment would occur in 2015. Particularly important for partnering on the community health assessment was their ability to contribute population level data. Although they felt they already had good data prior to the BRFSS expansion, they now had capacity to target interventions, general tracking of indicators, the ability to justify programs, create press releases with reference to data to gain credibility, participate fully in community health implementation plans and create reports for release to the public. They also used the data for grant development. They discussed their strategic planning process. They created an online reporting process utilizing a dashboard/scorecard. The strategic planning process engaged partners by using BRFSS data to understand community level data. They developed seven priority areas including workforce, accreditation, community health assessment, policy, branding and marketing, quality improvement and informatics capacity and health department services. They were working on developing more compelling and strategic stories for media to highlight those critical health problems for which they now BRFSS data. They were becoming more expert at the use of social media, and risk communication. They also discussed their use of the BRFSS data in educating policy makers about how the data should drive program decisions. Their future plans included continued engagement with the community utilizing the data.

The other large county had similar experiences. They had used BRFSS to enable investments in epidemiological capacity and created their Community Health Report which was imbedded within their strategic plan. They wanted to be known as a trusted source for data. They had developed messaging strategies for the newspaper and used their website to share their health scorecard. They were creating health related briefs to use with their Board of Health. They felt that data and informatics capacity would influence their strategic planning in the future. They were not closely involved with their local health/hospital system related to the community health assessment process.

2015

Two visits were made in 2015 to wrap up interviews with additional small to mid-size local health departments: a meeting with the KU faculty who had been involved with local health departments, and two visits with KDHE. Visits in 2015 focused on how BRFSS was used within small to medium sized health departments and on a set of higher level activities including community health assessment, informing policy, communicating with the public, influencing action, predicting future programs, and branding and marketing.

KDHE’s tracking data on the 74 local health departments that participated in the survey showed good uptake in the use of BRFSS data for community health planning and utilization of data for evidence based decision making and grant writing. KDHE
continued to provide course training on BRFSS utilization to the local health
departments. As expected, those health departments who had participated in course
training were using the data more. The KDHE data indicated significant uptake in the
use of the data and capacity to use the data. KDHE continued to work on training and
technical assistance for local health department BRFSS users and on the development
of tools and templates to enable the use of data for policy at the local level. KDHE staff
anticipated that the final year of expansion interviews would be in 2017 with release of
the final data in 2018.

I visited a mid-sized and several small local health departments in 2015. The
medium sized health department had been engaged in developing their community
health assessment process and planning with hospital partners. They saw this as a very
positive experience. They released an early community assessment plan in 2012 with
BRFSS data and information from public surveys, focus groups and stakeholder input.
An outcome from that process was the development of 14 priority areas for action. They
felt that the BRFSS expansion data helped them shape their planning goals and their
strategies. They felt more prepared for their quarterly meetings with the Board of Health
in policy areas of importance to the health of the country such as food policy,
communication about farmers markets, smoking cessation, outreach, physical activity
programming and the use of social media. They had increased staff to manage this work
in planning and epidemiology and reported that the work was more data driven,
particularly their strategic planning activities and grant development.

The smaller health departments were having more difficulty utilizing BRFSS data.
However they did report that prior to the BRFSS expansion the state wrote their grants
and now they conduct their own regional community health assessments and conduct
specific country strategic planning. The hospital planning process does not utilize
BRFSS data nor did the hospitals participate in a planning process with the local health
departments. They were not able to participate in much regional planning and stated
that they would benefit from a regional coordinator who could manage this type of
activity. They also reported difficulty focusing on population health as they were not
funded to do anything other than state mandates such as bioterrorism and
communicable disease. They stated that “selling population health” to country
commissioners was very difficult and although they now had some county level data it
did not seem to make a difference. However, without the BRFSS expansion, they
would have had no way of evaluating improvement in health status in their region.

In my meeting with KU faculty they reported being active partners in the use of
the BRFSS expansion data particularly in the use of population level health data for
hospital planning, teaching, regionalizing their epidemiology training, and development
and planning. They were working on community benefit activities (community health
assessment and planning), workforce planning and research.
Challenges and Opportunities

Over the past eight years significant progress has been made in the data capacity of KDHE, community partners (Kan-PIC, KALHD, KU) and local public health departments through the expansion of BRFSS data from 8000 to 18,000 interviews. The KDHE report “Kansas Behavioral Risk Factor Surveillance System (BRFSS) Expansion Program 2008-2015” described significant impact on the informatics capacity within KDHE and at the local level on a number of the core metrics for BRFSS. The ability of KDHE to efficiently collect and analyze BRFSS data is perhaps the most significant influence on data use capacity. Local health departments, depending on size, IT and informatics capacity, history of community and local government collaboration, and support from local elected officials have significant variation in their ability to fully realize the advantage of access to local or regional data. The enthusiasm on the part of KDHE on the value of the expansion is significant and their dedication to access and utilization is genuine and has made a critical difference in local capacity. The enthusiasm on the part of local health departments is also significant. They have clearly become more valuable partners with local health systems in community health assessment and planning and have expanded their expertise in policy, communication, and planning. Although some of the larger health departments have expressed frustration with their access to planning processes with their local hospitals. The expertise at the local level gained over the past eight years is widely varied across the 105 counties. Politics play some part in this, of course, as does funding levels. In some of the small local health departments there continues to be an attachment to the provision of clinical care that will be a distraction from the role as data and planning “strategist”. The training and technical assistance through KDHE has no doubt made a significant difference in expertise, but not all local health departments are able to utilize the training and in some cases do not see this as a priority. Because of this, some local health departments may never fully utilize BRFSS data. It should be noted that the enthusiasm on the part of KDHE for this effort and for progress made is both a strength and opportunity as it has provided incentives to continuously improve the training, consultation and data quality and integrity. However, in interviews with local health departments, the perception of progress has not always been shared. While important to local health staff and administrators, data capacity is only one of their many challenges in an environment of limited funding, changing local priorities, and access to local data for the rural and frontier counties.

The University of Kansas continues to be a significant resource to local health departments and I noted considerable enthusiasm for their involvement in increasing data and informatics capacity. The data has also been valuable in their research, education, and public health practice efforts. I see them as a viable partner in ongoing capacity development at the local level.
Recommendations

KDHE provided a number of recommendations for the future of the BRFSS expansion in their January 2016 report. They noted the need to continue the quantifiable aspects of local data use and to continue ongoing efforts to enable health departments to realize the full potential of BRFSS data. They also recommend aligning population level data with clinical data which has been echoed by a number of public health organizations, the Department of Health and Human Services (CMS) and organizations such as NQF. KDHE also highlights areas that would promote the utilization of BRFSS data at the local level including training, expansion of marketing and communication strategies, and expansion of evaluation efforts to understand opportunities for increased capacity. I agree with all of the recommendations. I reserve some caution that training may have a modest impact in those counties where barriers exist because of funding or local prioritization. The opportunity for the rural and frontier counties to gain expertise in data capacity and informatics may be limited given competing local governmental priorities and workforce expertise. But these limitations can be augmented through consultation from KDHE and from KU and perhaps through collaboration across local health departments. I believe the most important strategies will be based on practical applications of the data to what is most important for the local public health departments, what will be most significant for local elected officials, and what is most important to local communities and agencies including hospitals. These are opportunities for utilizing expertise through efforts such as accreditation, Kan-PIC and Health Matters. Incentives are critical for the full utilization of BRFSS data and training does not always present that incentive as strongly as local elected officials and community groups showing true interest in building data and epidemiological capacity within local health departments. They certainly have a start and some are leading these local efforts.

Perhaps the most critical questions are:

- Does the evidence suggest that the increased capacity to utilize data and inform planning and policy efforts support maintaining BRFSS expansion?
- What is the downside of reducing BRFSS data collection to the pre 2009 level?
- What process would support the development of a strategy to maintain the current level of data collection?

Based on personal interactions with the major stakeholders in this effort over the past eight years I believe:

- The evidence reported over the past eight years through tracking data collected by KDHE and qualitative data collected through this consulting project indicate that the capacity to utilize BRFSS data at the local level has had positive and significant impact on: a) local health department capacity to utilize data relevant to their local or regional population, b) to develop
community health planning strategies, c) to collaborate in setting health priorities with local elected officials, health systems and community partners, and d) to communicate health information to policy makers, the media, and citizens. These advances for local public health must be weighed against the funding challenges, but it is evident that stepping back from this critical capacity would be problematic for public health in Kansas.

- The downside of returning to the pre 2009 BRFSS data collection of 8000 interviews would mean a reduction in the utility of the data for local planning and priority setting, reduce the relevance of local health departments in community level planning, and reduce the ability for local communities and elected officials to create relevant strategies customized to their population.

- A strategy should be developed, informed by the Kansas Health Foundation’s partners, on how the current expansion should be funded going forward. Included in this strategy should be an emphasis on the capacity of KDHE to continue their efforts to assure that local health departments and community and state organizations have access to high quality data in formats useful to taking action. Funding priorities from KDHE and KHF should continue to include the BRFSS expansion.