Final Assessment Report:
Prairie du Chien Memorial Hospital Association, Inc.
DBA: Crossing Rivers Health
Rural Health Care Services Outreach Program #D04RH28427

Executive Summary:

In 2014, leaders from Prairie du Chien Memorial Hospital Association, Inc. (dba: Crossing Rivers Health (CRH)) a not for profit critical access hospital, Crawford County Health and Human Services (CCHHS), and Richland County Health and Human Services (RCHHS) met to review the health needs of their communities and identified critical gaps in behavioral health services throughout Crawford and Richland counties in rural Southwest Wisconsin. All three entities serve patients within Mental Health Professional Shortage areas. Utilizing findings from their respective community health needs assessments, the partners applied for and received Rural Health Care Services Outreach Program funding. HRSA support led to the formation of the "Crossing Rivers Telehealth Consortium (CRTC)" and implementation of the "Mental Health through Telemedicine" initiative.

With an average of 30 people per square mile residents from Crawford and Richland counties faced barriers related to geographic and extreme rurality when attempting to access mental and behavioral health care services. Both counties are labeled "Health Professional Shortage Areas" in the category of mental health. Consortium agencies attempted to contract with psychologists and psychiatrist to meet local needs, however the commute to our rural sites was often in excess of two hours one-way, and urban providers were hesitant to commit their time to extensive travel. Further, consortium agencies were faced with hourly charges for contracted mental health providers during this travel time. This seriously increased the cost of services while decreasing the time contracted doctors had to work directly with patients.

Too frequently, this local shortage of mental health care providers meant that adolescents and adults in need of service were not able to access appropriate care in a timely fashion, necessitating a two-hour plus drive to the nearest "big" hospital or clinic. Prior to HRSA funding and our development of the Crossing Rivers Telehealth Consortium, the lack of service providers resulted in families and individuals delaying access to mental health support that too often ended up in crisis-level situations.

"Mental Health through Telemedicine" initiative was designed to overcome these health disparities and critical gaps in behavioral health services due to a lack of psychiatrists and psychologists in our local workforces. Our unique consortium consisting of CRH, CCCHHS and RCHHS as public, government agencies posed numerous issues with policies and procedures due to different rules within the public and private sector. All partners developed best practice policies and procedures for consistency of patient care to improve access, quality, and cost effectiveness of behavioral health services.

Telemedicine capabilities allow our targeted healthcare locations to address patient needs on-site, leveraging technology to overcome the distance barrier that prevents adequate access to mental health services. Telemedicine has dramatically reduced the need for contracted providers to travel by providing a platform for virtual appointments increasing caseload capacity and reducing time between patient appointments.

Background and Purpose:

There were four primary purposes CRTC wanted to address to improve mental and behavioral health care services in our region:

1. Expand the delivery of health care services to include new and enhanced services exclusively in rural communities. *Telehealth is still relatively new to our rural area and continues to enhance delivery of mental and behavioral health services to meet that objective.*
2. Deliver health care services through a strong consortium, in which every consortium member organization is actively involved and engaged in planning and delivery of services. *Each consortium member has been actively engaged in every phase of our telehealth project including selection of equipment, development of tele processes and guidelines, selection of providers, and consistent implementation of services.*
3. Utilize and/or adapt an evidence-based model in the delivery of health care services. W*e chose **"Telemedicine-Based Collaborative Care"** to improve patient depression and other mental health outcomes and have adapted this model to serve our youth and adolescent population as well. Additionally, we are integrating the **"Patient-Centered Medical Home"** model into our telemedicine delivery system to meet persons afflicted with co-occurring disorders to ensure that patients with behavioral health and substance abuse issues will get the integrated care they need.*
4. Improve population health, demonstrate health outcomes and sustainability. *This as well has been accomplished to some extent. The Crossing Rivers Health Consortium will continue to provide telemedicine services for mental/behavioral health patient resulting in reduced patient appointment wait times and costs.*

Few evidence-based models were available featuring telemedicine to bring mental health services to rural communities, however of those our consortium reviewed, **"Telemedicine Based Collaborative Care",** found on SAMHSA;s National Registry of Evidence-based Programs and Practices was most relevant to our specific needs. The three major components of this model that matched our specific needs are: 1) an off-site tele-psychiatrist; 2) an on-site primary care provider; and 3) an on-site nurse care manager. While the model had proven effective for adult populations, it did not include the use of telemedicine for youth patients. Our Consortium agencies expanded the existing model, modifying it to meet the specific needs of Crawford and Richland counties – where there remains a desperate shortage of child-focused behavioral/mental health providers.

Consortium agencies have begun integration of the **"Patient-Centered Medical Home"** model into our telemedicine delivery system to meet mental health and substance abuse needs. The medical home model encompasses five primary principles, functions and attributes: Patient-Centered, Comprehensive Care, Coordinated Care, Access to Care, and Systems Approach to Quality and Safety. In the Agency for Healthcare Research and Quality (AHRQ) definition, health IT, workforce development, and enhanced payment are considered to be important facilitators of change that support the medical home. Specifically, implementing the medical home model is expected to improve quality of care (including processes of care and health outcomes), reduce costs (including use of hospital and emergency department services—two key drivers of cost), and enhance the

experience of care (for patients and caregivers, who are the users of the health care system). We expect this model to improve the experience for health care professionals. The following table illustrates our progress to date specific to our Mental Health through Telemedicine initiative.

Project Specific Indicators Baseline Measures (PIMS)		
Access to Care	2014	2018
Number of Counties Served	2	4
Number of people in target population	34,114	41,500
Number people reached through indirect services	90,000	90,000
Number of people served by age group		
Children (0-12)	7	65
Adolescents (13-17)	127	71
Adults (18-64)	708	989
Elderly (65 and over)	210	239
Number of unique people receiving direct mental and/or Behavioral health services	1052	1364
Number of People Served by ethnicity		
Hispanic or Latino	21	15
Not Hispanic or Latino	1031	1287
Unknown	0	62
Number of People served by Race		
American Indian or Alaska Native	1	0
Asian	5	3
Asian Indian	0	0
Black or African American	20	12
Native Hawaiian or other Pacific Islander	0	1
White	995	1282
More than one race	31	14
Unknown	0	52
Number of people by insurance status		
Uninsured/self-pay	16	121
Dual Eligible (Medicaid and Medicare)	214	211
Medicaid/CHIP only	217	391
Medicare only	137	182
Other third party	322	412
Unknown	36	47
Preventive Care and Screening: Clinical Depression and Follow-up Plan		
Number of outreach events including free mental health screenings	8	17

Percentage of patients aged 12 and older screened for clinical depression using an age appropriate standardized tool and follow-up plan	Not Available	79.33%
Patient satisfaction rating of mental and behavioral health services delivered via telehealth	Telehealth services not offered	95% Satisfied/ very satisfied
Willing to use telehealth services in the future	Telehealth services not offered	96%
Average wait time between established mental health patient appointments	117 days	30 – 45 days
Medication adherence rates among mental health patients	42%	61%
Travel expenses reduced/eliminated through telemedicine services	27% encountered barriers	14% encountered barriers
Crisis level mental health incidents presented by patients in consortium agencies	210	167

Assessment Methods:

On-going evaluation allowed consortium agencies to continuously inform project modifications with real-time data to ensure benchmarks and objectives were met. Data sets were utilized to generate performance feedback loops and identified when and where corrections could be made at key intervals.

All project-specific measures were monitored and tracked throughout the grant period in order to qualitatively and quantitatively demonstrate the effectiveness of Mental Health through Telemedicine initiative. All ongoing data activities were compiled and included in quarterly evaluation reports for consortium members to review, revise, and brainstorm strategies to improve attainment of our objectives.

As part of Crossing Rivers Telehealth Consortium's strategic planning process, the following process and outcomes questions were developed and followed throughout. CRTC members utilized the below process and outcome questions to monitor project activities related to goals and objectives utilizing standardized project tracking forms. Formative evaluation using such techniques as patient/provider interviews, focus groups, observations, and self-reporting measures were also implemented to monitor program progress and performance.

Process Questions

1. How many and where were community outreach events conducted?
2. Were outreach events held as scheduled? Why or why not?
3. What target audience was reached at community outreach events?

4. How many people received mental/behavioral health screenings at outreach events?
5. How many CRTC member agencies were present at outreach events?
6. How many staff have been trained to facilitate telehealth patient encounters at each site?
7. Have potential barriers at telehealth sites been identified and resolved?
8. What are the back-up protocols for telehealth equipment?
9. Are intake and exit protocols for patients been developed and implemented at telehealth sites?
10. Are Advisory Committees taking place on a timely schedule?
11. How many unique individual received direct services via telehealth delivery
12. How are patient demographics (age, gender, race, ethnicity, insurance) being collected?
13. Have specific intervention been implemented to reduce youth suicide attempts?
14. How will we collect data required to meet PIMS measures (gender, age, race, ethnicity, insured/uninsured) be collected?
15. Have telehealth services for primary care needs been identified?

Outcome Questions

1. Was there a decrease in patient no-show rates as a result of telehealth services?
2. Has the number of individuals able to access mental health services increased?
3. Was there an increase in patients using telehealth delivery services?
4. Has there been a reduction of patient wait time between appointments with telehealth?
5. Have patients experienced a reduction in travel time/distance, expense due to telehealth services?
6. Is there an increase in medicine adherence due to telehealth services?
7. Has there been an increase in patient satisfaction due to telehealth services?
8. Has there been a decrease in "crisis level" patients due to telehealth?
9. How many people screened at community outreach events are now receiving service?
10. Were there an increase in youth being served there telehealth services?
11. Has the caseload capacity of consortium agencies been increased?
12. Have youth suicide attempts decreased?
13. Does the PIMS data collected demonstrate an increase of diverse populations?
14. What primary/acute care services are being delivered via telehealth?

The following instrument was used at each site to randomly collect real time data from a patient's perspective receiving telehealth services.

Telehealth Client Satisfaction Survey

We are interested in your experiences in using Telehealth services. Please take a few minutes to answer the following questions and turn in this survey to the receptionist at the front desk. If you want assistance in filling this out, please ask the receptionist.

1) Were you given the choice between using Telehealth and meeting in person with the prescriber for your appointment? Yes_____ No_____

2) Were you given an orientation or sufficient preparation to use Telehealth? Yes_____ No_____

3) How often have you used Telehealth services? Once_____ 2-3 times_____ 4 or more times_____

4) How satisfied were you with meeting with your psychiatrist using Telehealth services?
Very satisfied_____ Satisfied_____ Not Satisfied_____

5) How satisfied were you with the in-clinic person who assisted you during the session(s)?
Very satisfied_____ Satisfied_____ Not Satisfied_____
If "not satisfied," please explain:

6) Did the equipment work effectively? Yes_____ No_____

7) Do you feel you had privacy and confidentiality during your session(s)? Yes_____ No_____

8) Are you willing to use Telehealth services in the future? Yes_____ No_____

9) Overall, were you satisfied with Telehealth service? Yes_____ No_____
If "No," please describe the problem:

10) Please give us your comments on how Telehealth services can be improved.

11) Do you wish to be contacted about your experience with Crawford County Human Services' Telehealth Service? Yes_____ No_____*****

*****If yes, please leave your name and phone number_____

Note: This information is used to evaluate and improve Telehealth services. Thank you for your time and cooperation.

Furthermore, additional tracking forms allowed us to determine whether project activities were being conducted in sequence and on time and meeting stated objectives, as proposed in the project design. Tracking forms were submitted monthly to the program director for review and entered into the project database. To meet PIMS measure requirements, we tracked gender, age, race, ethnicity, insured/uninsured of all individuals receiving services via telehealth via consortium electronic health record systems.

Results Discussion:

We have seen an increase of approximately 30% of unique patients receiving direct services by our consortium agencies since our baseline in 2014. Of that unique patient group, almost 80% of patients aged 12 and older have been formally screened for clinical depression using age appropriate standardized tools with a follow-up plan developed. Furthermore, we reached over 90,000 persons annually through indirect services: billboards, flyers, rack cards, mailings, newsletter and other mass media including social media. We attribute a significant portion of our success to outreach activity expansion, direct contact with providers and increased awareness of telehealth services available

Telemedicine services have proven to reduce patient wait times between appointments, reduce patient and provider travel time, increase provider accessibility and been more cost effective. Evaluation results have shown patient wait time being reduced from an initial baseline of 117 days to approximately 30 – 45 days. We have also seen an estimated $90,000 savings between the consortium agencies by reducing provider travel time.

Telemedicine patient surveys have indicated a 95% very satisfied or satisfied rate with telemedicine services in our remote, rural area for the first time.

Our lessons learned are somewhat simplistic in nature. 1) always have multiple strategies for provider/patient recruitment and retention – make your clinic the one they want to work at; 2) stream-line your referral and prep process; 3) talk up your provider and tele service – remind patience of convenience, travel time and expense saved; 4) always have a back-up plan for technical difficulties; 5) be willing to collaborate with partners to maximize providers time; 6) eliminate barriers with electronic health records; 7) create a balanced payer mix to sustain services and meet community needs; 8) be open to engaging other community members and stakeholders; 9) find your own niche by integrating your program into what others are already doing; 10) make sure your patient telemedicine visit mirrors a face-to-face encounter; 11) hire an exceptional RN to keep provider and patient happy – they are the one that establishes a trusting relationship with the patient.

Some of the children are initially a little shy but by the end of the telehealth session they are fist-bumping or giving high fives to the doctor on the screen or just mesmerized by the "robot doctor."

Most elderly clients seem to take telehealth in stride as just one more thing they have to adjust to in this fast-paced society. An eighty-year-old lady, all dressed in purple with a diagnosis of chronic schizophrenia was enthralled with the clarity of the video and told the tele-provider "I just love your pretty white teeth!"

Dissemination of project findings:

We have been able to the share our lessons learned in three different venues over the past few years. Rick Peterson, Project Director, presented on our Mental Health through Telemedicine initiative as part of the Behavioral Health Grantee Panel discussion at the HRSA Rural Outreach Partnership Meeting in Rockville in October 2016. This allowed us the opportunity to share our challenges, lessons learned and successes with our HRSA colleagues. It was also a great opportunity to learn from our peers on what and how to improve in our processes.

Mr. Peterson also presented at the "Innovations from the Field: Connecting Communities with Telebehavioral Health" Outreach Peer Learning Summit 2017 in Atlanta. This invitation stemmed from our Technical Assistance provider, Lynne Kernighan and was hosted by Georgia Health Policy Center. Mr. Peterson was again able to demonstrate our progress to date by presenting and disseminating our White Paper, entitled "Mental Health through Telemedicine: An analysis of the benefits and barriers of Telemedicine". Despite barriers along the way, with the help of the Rural Health Care Services Outreach grant we have been able to provide Telemedicine services in our rural areas while reducing costs and patient wait times. The White Paper findings and conclusions can be found at http://www.crossingrivers.org/mentalhealththroughtelemedicine

We also presented our Telemedicine learnings as part of the SAMHSA-HRSA Center for Integrated Health Solutions, CIHS National Webinar Behavioral Health Integration for Older Adults webinar on February 15, 2017. Amanda Pettit, Clinic Nurse Manager; Marcia Erickson, Psychiatric Nurse; and Ashley Hady, MSW; shared the transition process utilized to facilitate older patients from primary care settings into behavior health.

In February 2018, Crossing Rivers Health, Crawford County Health and Human Services, Crawford County Circuit Courts, Gundersen Health System, and Mayo Clinic Health System collaborated to hold a Town Hall meeting entitled "Responding to Addiction in our Community". This Town Hall was held to address substance abuse and mental health co-occurring disorders, the impact it has on children, families and to address how we, as a community can respond. Over 120 people attended this meeting to learn about co-occurring disorder (primarily addiction and mental health) problems facing our rural communities. The panel of experts included Crawford County Circuit Court Judge, License Clinical Social Workers, and Clinical Mental Health Therapists. Issues covered included treatment court alternatives to incarceration, current telemedicine and other treatment services available, and a call to action to identify the community's role. A follow up meeting to push forward the Call to Action was held in April 2018. The momentum generated from this event will continue well beyond Outreach funding.

On a local level, rack cards were created and distributed at previously scheduled community events which had a "captive audience".to maximize impact. Lessons learned, data findings,and outcomes have been shared on Consortium member websites, media outlets, and presented to their respective boards.

Other communities may find the Final Assessment findings and conclusions can be found at http://www.crossingrivers.org/mentalhealththroughtelemedicine.

Moving forward, the project contact(s) for this initiative will be:
Julia Nelson, Chief Quality Officer, julia.nelson@crossingrivers.org and Ruth Graewin at ruth.graewin@crossingrivers.org.

Conclusions and recommendations:

Provider shortage in the areas of recruitment and retention was and continues to be an on-going issue in our rural area. It is estimated that there is 1 psychiatrist for every 30,000 people in need in Wisconsin. The mental health provider ratio for Crawford and Richland counties is 1,170:1. Initially, we attempted to hire a full-time psychiatrist to share among our three consortium sites via Telehealth and in person. We learned that few, if any, psychiatrists wanted to relocate to our remote, rural area.

We began contracting with a Madison based provider in August 2016 to provide psychiatric telehealth services to the consortium sites. In February 2017, that provider decided to move onto other organizations creating a gap in service. We have been able to fill that gap by contracting with InSight Telepsychiatry and Regroup Therapy Telehealth Services. By utilizing these services, we have a child/youth psychiatrist based in New Jersey and an

adult psychiatrist based in Chicago. We feel this multiple provider recruitment strategy will offset future provider challenges, barriers, increase efficiencies, increase access and lower costs to patients and consortium agencies promoting sustainability.

Lessons Learned during Telehealth Tests

1. Lighting can cause shadowing – potential for disruption of patient/provider encounter
2. Band width – some delay/freezing occurred at Fennimore Clinic site
3. Camera adjustment and/or distance needed to sit away from screen
4. Power outage back up plan needed
5. Host site will be provider site
6. Who will log patient/consumer into site
7. Have all persons face the screen, speaking into receiver when having more than one participant involved

Lessons Learned during implementation of Telehealth Services

- Always have multiple strategies for provider/patient recruitment and retention – make your clinic the one they want to work at
- Stream-line your referral and prep process
- Promote your provider and tele service – remind patients of convenience, travel time and expense saved
- Always have a back-up plan for technical difficulties
- Be willing to collaborate with partners to maximize providers time
- Eliminate barriers with electronic health records
- Create a balanced payer mix to sustain services and meet community needs
- Be open to engaging other community members and stakeholders
- Find your own niche by integrating your program into what others are already doing
- Make sure your patient telemedicine visit mirrors a face-to-face encounter
- Have multiple staff properly trained in the use of telehealth equipment
- Hire an exceptional RN(s) to keep provider and patient happy – they are the one that establishes a trusting relationship with the patient.