

**Bringing Specialty
Asthma Care to
Rural North Dakota**

Wendy Brown Pharm.D, MPAS, PA-C, AE-C

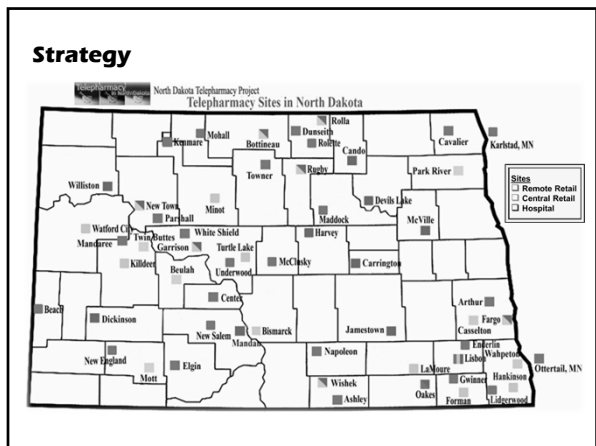
Conflict of Interest

- **No Conflict of Interest**

Objectives

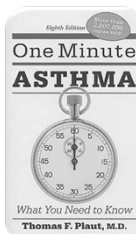
- **Evaluate access to care through the use of the North Dakota Telepharmacy Project (NDTP).**
- **Determine patient perceptions on the use of telepharmacy technology to deliver disease management.**
- **Optimize disease control in patients with asthma by addressing medication technique barriers to adherence.**

Strategy



Tools

- Collaborative Practice Model
- Screening- Spirometry
- Patient Education/Monitoring
 - Plaut T. One Minute Asthma, 8th Edition
 - Asthma Control Test® (ACT)
 - In-check Dial™



Process



Program-Telemedicine Experience

- The use of telemedicine technology is worth my time.
 - Always
 - Often
 - Sometimes
 - Seldom
 - Never
- I look forward to my visits by telemedicine technology.
 - Always
 - Often
 - Sometimes
 - Seldom
 - Never
- The use of telemedicine technology is a convenient way to receive care.
 - Always
 - Often
 - Sometimes
 - Seldom
 - Never
- I am satisfied with the care I received though the use of telemedicine technology.
 - Always
 - Often
 - Sometimes
 - Seldom
 - Never
- I prefer the use of telemedicine technology over a face to face visits.
 - Always
 - Often
 - Sometimes
 - Seldom
 - Never

Program- ACT

Asthma Control Test™ Is:

A quick test that provides a numerical score to assess asthma control.
 Designed to be repeated multiple times of month (once in 3-12) within guidelines.
 Usually selected against surveys and special assessment?

For Patients 12 Years and Older:

A patient completes and enters the answers online at the time they log in.
 A patient completes and enters their answers in the TMS, via smartphone.
 Scores are ready with your visit.

- In the past 4 weeks, how much of the time did your asthma symptoms prevent you from doing work, school or school?
 None A little Somewhat A lot Very much None NA
- During the past 4 weeks, how often have you had shortness of breath?
 None A little Somewhat A lot Very much None NA
- During the past 4 weeks, how often did you wake up with asthma symptoms (coughing, wheezing, shortness of breath, chest tightness or pain) that were not brought under control by your medicine?
 None A little Somewhat A lot Very much None NA
- During the past 4 weeks, how often have you used your rescue inhaler or other medication (such as albuterol)?
 None A little Somewhat A lot Very much None NA
- How would you rate your asthma control during the past 4 weeks?
 Excellent Good Fair Poor Very poor None NA

If your score is 19 or less, your asthma may not be under control. Be sure to talk with your doctor about your results. The answers below should not be added to your total score. These answers should be answered with your doctor.


In the past 12 months, how many emergency department visits have you had due to asthma (that did not result in a hospitalization)?

In the past 12 months, how many hospitalizations have you had due to asthma?

© 2009-2012, ActiMetrics Corporation
 All rights reserved. All trademarks are the property of their respective owners.
 Asthma Control Test™ is a registered trademark of ActiMetrics Corporation. All other trademarks are the property of their respective owners.
 Asthma Control Test™ is a registered trademark of ActiMetrics Corporation. All other trademarks are the property of their respective owners.
 Asthma Control Test™ is a registered trademark of ActiMetrics Corporation. All other trademarks are the property of their respective owners.

Program-Outcomes

- **Study began January 2012**
- **Thirty-six individuals have been screened with 18 qualifying for study inclusion.**



Program-Outcomes

- **100% of patients on visits 1 and 6 indicated that the use of telepharmacy technology is “always” or “often” a convenient way to receive care.**
- **30% on visit 1 and 60% on visit 6 indicated the use of telepharmacy technology is “always” or “often” preferred over face-to-face visits.**

Program-Outcomes

- **Asthma Control Test**
 - **Survey scores improved by 20%**
 - **Patients who had a 20 or higher at visit 1=47% which increased to 67% at visit 6**
- **In-check Dial**
 - **Meter Dose Inhaler (MDI) technique improved by 27% (visit 1=13%, visit 6=40%)**
 - **Dry Powder Inhaler (DPI) technique improved by 100% (visit 1=0%, visit 6=100%)**



Conclusion

- **Although patients preferred face-to-face visits at the same location, they are able to see the convenience of virtual visits made possible by telepharmacy technology.**
- **Via telepharmacy, medication technique barriers and disease control can be accomplished in patients with asthma.**

Acknowledgements

- **Marissa Erlandson- Clinical site coordinator**
- **Tara's Thrifty White Pharmacy**
- **Sanford Oaks Clinic**
- **Oakes Community Hospital Clinic**
- **NDSU College of Pharmacy, Nursing and Allied Sciences**

Questions????

Contact Information:

Wendy Brown Pharm.D, MPAS, PA-C, AE-C
Associate Professor, Pharmacy Practice
NDSU Dept. 2660
PO Box 6050
Fargo, ND 58108-6050
Phone: 701-231-6685
E-mail: wendy.brown@ndsu.edu
