

# Diabetes Tele-Education Opportunities

Anne Wolf, MS,RD Viola Holmes, MS, RD, CDE Virginia Center for Diabetes Prevention and Education University of Virginia School of Medicine



- Define telehealth and delivery modes
- Review evidence for the use of tele-education in diabetes care
- List the primary considerations when using teleeducation for diabetes
- Discuss reimbursement of telehealth for DSME
- Describe examples of how tele-education is being used to support clinical practice



- Telehealth: Use of telecommunications to deliver health related services and information that support patient care to distant site. Often synonymous with telemedicine
- Tele-education: Use of technology to deliver of distance learning to patients, their families, and health care professionals
- Often used in rural areas to address access to specialized care and health professionals



www

## **Telehealth Delivery**



- Live Videoconferencing (Synchronous)
  - Live, two-way communication between patient and provider
- Store-and-Forward (Asynchronous)
  - Occurring in delayed time sequence
- Remote Patient Monitoring
  - Personal health and medical data from an individual in one location transmitted to a provider in different location for use in care
- Mobile Health (mHealth)
  - Health care practice & education supported by mobile communication device



- Epidemic of diabetes nationwide (23 million U.S. adults with diagnosed diabetes in 2017)
- In Virginia, only 54% of individuals with diabetes have taken a class to manage their diabetes; 26% among people who have less than a HS education
- Shortage of diabetes educators and ADA or AADE recognized education programs in rural and underserved areas of the state
- Prevalence of diabetes is 17% higher in adults living in rural areas
- Efficiency of using existing telemedicine equipment for education

### **DSMES Program Locations in Virginia**





## **DSME Settings throughout Virginia**





### Other<sup>2</sup>

- Children's Hospital of Richmond
- Church
- Community Center
- Drug stores
- Endocrine Office
- Health Department

- Library
- Local Gym
- Perinatology outpatient clinic
- Primary Care outpatient clinic
- Retirement Community



- 76% Prioritize Access over need for in-person
- 75% Interested in telemedicine appointment
- 36% Comfortable communicating with healthcare professional through text, email and video
- **30% Use Devices** for Medical and Diagnostic information already



• Diabetes education via telemedicine vs. in-person was equally effective in improving glycemic control.

Izquierdo, Knudson, Meyer et al Diabetes Care2003;26(4):1002-7.

 Multicomponent telehealth strategies effectively used to conduct remote DSME to rural, underserved and diverse primary care settings

Davis, Hitch, Salaam et al Diabetes Care 2010;33(8):1712-17.

- Literature review suggests that both teleconsultation and videoconferencing are practical, cost-effective, and reliable ways of delivering health care service to people with diabetes Verhoeven, van Gemert-Pijnen, Dijkstra et al J Med Int Res 2007;9 (5):e37.
- Outcomes from a diabetes disease management program increased the number of people with diabetes who brought blood glucose under control

• Dimmcik, Burgiss, Robbins et al Telem J e-health 2003;9(1):13-23.

Recent Review of Literature: McLendon, SF. Diabetes Spectrum 2017;30(2)124-36.



- HIPPA compliant software
- State licensure of health professionals
- Reimbursement



# ✓ HIPPA compliant software

# ✓ State licensure of health professionals

• Reimbursement



### **Originating Site**

- Location of the <u>patient</u> during DSME
- Does not have to be ADA/AADE recognized

### **Distant Site**

- Location of the <u>educator</u> during the DSME encounter
- Distant site has to be ADA/AADE recognized



- As of January 2011 DSME/DSMT can be provided as telehealth services
- Only Synchronous (live videoconferencing) reimbursed by Medicare
- All original billing and coding reimbursement rules apply
- DSME Additional requirements for telehealth
  - <u>></u> 1 hour of 10 hours in initial year to be in-person for training on injectable meds (individual or group)
  - <u>></u> 1 hour of 2 hours in follow up years to be in-person for training on injectable meds (individual or group)



- Originating Site: bill for "originating site facility fee"
  - HCPCS code Q3014
  - Type of service = "9"
  - Place of service (POS) = 11
  - 2018 Medicare reimbursement: Lesser of 80% or \$25.76
- Distant Site:
  - Reimbursement same as if provided in person
  - Use Place Of Service (POS) code 02 for telehealth
  - If billing under CAH optional payment method, use GT modifier
  - 2018 Medicare Fee Schedule rates (VA)
    - G0108 (per 30 minutes) \$53.94
    - G0109 (per 30 minutes per patient) \$14.65



- Medicare tele-education services can only be furnished to originating sites located in:
  - A rural Health Professional Shortage Area (HPSA) located in rural census tract
  - A county outside of a Metropolitan Statistical Area (MSA)
- To determine a potential originating site's eligibility for Medicare telehealth payment
  - Medicare Telehealth Payment Eligibility Analyzer at
  - <u>https://datawarehouse.hrsa.gov/tools/analyzers/geo/</u>
     <u>Telehealth.aspx</u>



- The following health care providers are approved to provide telehealth
  - Physician
  - Physician Assistant (PA)
  - Nurse Practitioner (NP)
  - Clinical Nurse Specialist (CNS)
  - Nurse Midwife
  - Clinical Psychologist
  - Clinical Social Worker
  - Registered Dietitian (RD) or Nutrition Professional
- RN and CDEs are not approved providers for telehealth



 More information on DSMT reimbursement on AADE website: <u>https://www.diabeteseducator.org/practice/ask-</u> <u>the-reimbursement-expert/reimbursement-q-a</u>

# **Telehealth Examples**









# **Diabetes Tele-Education in various States**

Virginia Center for Diabetes Prevention & Education

	South Carolina	Arkansas	Montana
Location of site	FQHC	Rural Community Hospital	Rural primary care clinics
Number of sites	3 sites	1 site	5 sites
Type of HCP	RD; RN/CDE	CDE	PCP-referred: NP, CDE, RN, RD, LCSW
Content of Program	Diabetes topics recommended for ADA program recognition	Diabetes topics recommended for ADA program recognition	Diabetes care and self- management education
Type of education	3 in-person group sessions (session 1,6,12) 9 group video- conference sessions	Group sessions	Face-to-face office setting compared with telehealth 1-1 visits with PCP or ID team member
Length of program	12 months Monthly sessions	6 biweekly (two 1- hour and four 2- hour sessions	3 years; monthly visits to complete education; quarterly visits thereafter
Outcomes	0.9% decrease in A1C at 6 months; 1.0 % decrease in A1c at 12 months	NSD in self-care, preventative practices, or clinical outcome measures	NSD between groups; increases in diabetes SOC measures; increase in pt. knowledge, self- mgmt. skills, preventative care

### **VCDPE Tele-Education Sites**



### Sites and Number of Patients Participating from 2008 - 2016



# 60 Sites: health departments, FQHCs, free clinics, senior centers, critical access hospitals

## Percentage of Participating Sites by Setting





- Critical Access/Hospitals(n=8)
- Community Health Centers (CHCs)
- Free Clinics (n=2)

Libraries (n=3)

Senior Centers (n=2)

Health Departments (n=27)

# **VCDPE Number of Program Participants**

### 2008-2016



### Total Number of Participants = 3,404





- Increase access to diabetes patient education programs in medically underserved areas of Virginia through the use of telehealth technologies.
- Offer a series of 4 diabetes tele-education classes in partnership with:
  - UVA Diabetes Education and Management Program
  - University of Virginia Office of Telemedicine
  - Harry L. Coomes Recreation Center, Abingdon, VA

### **Tele-Education Marketing**



**Virginia Center for Diabetes Prevention & Education** 

### Virginia Center for Diabetes Prevention & Education

### **FREE Diabetes Tele-Education Classes**

### 2018 Classes

Offered in April and September

Tuesdays from 1:00 p.m. - 3:00

### Registering for the Classes is as Easy as 1-2-3:

- Visit our website, click-on and complete the online "Registration Form" <u>https://med.virginia.edu/vcdpe/diabetes-tele-</u> education-programs/.
- Use the "Marketing Resources" on the page to spread the word about classes to your clients and community.
- Access additional resources on the site to make your diabetes tele-education program a success:
  - Class Schedule
  - Technology readiness
  - Class materials

### In partnership with the UVA Office of Telemedicine, VCDPE has offered live and interactive diabetes tele-education classes since 2008.

Sites and Number of Patients Participating from 2008-2016



For more information contact Anne Wolf MS, RD, Director VCDPE <u>amw6n@virginia.edu</u> or (434) 924-2858 <u>www.med.virginia.edu/vcdpe</u>

### Series of 4 Classes

### Class #1 – "Basics of Diabetes and Medications"

This class covers areas identified by the American Diabetes Association as essential to successfully manage diabetes. Topics include definition, diagnosis, and types of diabetes, target glucose goals, oral and injectable medications for type 1 and type 2 diabetes, treatment of hypoglycemia, sick day guidelines, foot care, and diabetes complications. An in-depth discussion of insulin is covered in the Glucose Control, Activity, and Stress class.

### Class #2 - "Nutrition Basics"

This class provides up-to-date, helpful information that participants can readily use to plan meals that will improve their blood glucose control and are heart healthy. Topics include nutrient effects on blood glucose, healthy food choices, serving sizes, reading food labels, use of non-nutritive sweeteners, use of alcohol, recommendations for fats and fiber, and healthy snack choices.

### Class #3 - "Glucose Control, Activity, and Stress"

This class focuses on blood glucose control. Topics include an in-depth discussion of insulin management, case studies to understand and interpret daily glucose patterns, and a discussion of how eating, activity, and medication can be adjusted to improve glucose. The focus will then shift to interactive sessions on physical activity and managing stress. Activities include 20 minutes of stretching using resistance bands, provided free to participants, and practice with deep breathing and relaxation.

### Class #4 – "Eat Smart, Change Your Lifestyle"

This class focuses on the "how to" aspects of changing what you eat. Topics include tips about shopping for healthy meals, portion sizes, easy ways to cut calories, avoiding common eating traps, tips on how to eat healthier. The class will end with a discussion of how to set personal goals for improving your lifestyle.

Register for 1 class or all of the classes!

### FREE Diabetes Patient Tele-Education Classes



Insert Organization Logo here

(Name of Organization) in partnership with the University of Virginia, is offering the following tele-education classes on managing diabetes. Take one or more of our free classes! To learn more, contact the Site Coordinator (Site Coordinator Name) at (contact information)

The Basics of Diabetes and Medications (1-3 pm)

• April 4, June 6, September 5, November 7 Nutrition Basics (1-3 pm)

April 11, June 13, September 12, November 14
 Glucose Control, Activity, and Stress (1-3 pm)

April 18, June 20, September 19, November 21

- Eat Smart, Change Your Lifestyle (1-3 pm)
  - April 25, June 27 September 26, November 28





• The Basics of Diabetes & Medications

The topics covered in this class are essential for successfully managing diabetes. Topics include: ✓ definition, diagnosis, and types of diabetes

- ✓ target glucose goals
- ✓ diabetes complications
- discussion of oral and injection medications (including insulin) for type 1 and type 2 diabetes
- ✓ foot care
- ✓ treatment of hypoglycemia.



### • Nutrition Basics

This class provides up-to-date, helpful information that participants can readily use to plan meals that will improve their blood glucose control and are heart healthy. Topics include:

- ✓ nutrient effects on blood glucose
- ✓ healthy food choices (what, when, & how much)
- ✓ serving sizes
- ✓ reading food labels
- ✓ meal planning (Plate Method and Basic Carbohydrate Counting)
- ✓ recommendations for fats and fiber, and healthy snack choices.



### • *Glucose Control, Activity, & Stress*

This first part of this class will focus on blood glucose control, including use of case studies to understand and interpret daily glucose pattern and a discussion of how eating, activity, and medication can be adjusted to improve glucose. The focus will then shift to interactive sessions on physical activity and stress. Activities include stretching using resistance bands and practice with deep breathing and relaxation.

Video Clip of Glucose Control, Activity, & Stress



• Eat Smart, Change Your Lifestyle

Do you feel like you hear a lot of information about eating, but still don't know what to do? This class focuses on the "how to" aspects of changing what you eat. Topics include tips about shopping for healthy meals, portion sizes, easy ways to cut calories, avoiding common eating traps, tips on how to eat healthier. The class will end with a discussion of how to set personal goals for improving your lifestyle.

Video Clip of Eat Smart, Change Your Lifestyle



# Visit the tele-education page of our website at <a href="https://med.virginia.edu/vcdpe/diabetes-tele-education-programs/">https://med.virginia.edu/vcdpe/diabetes-tele-education-programs/</a>

to register for classes and to learn more about our program

Home > Diabetes Tele-education Progr	rams > Registration Form	
Registration Fo	orm	Phone *
2017 Schedule of Classes 2017 Tele-education Programs How to Participate	2017 Diabetes Patient Tele-Education Program Registration The registration form is to be filled in and submitted by the program facilitator at participating	FAX *
Marketing Resources Participant Follow Up Program Resources	sites. Thank you. Please fill out the following registration form to participate in our programs. When you hit the SUBMIT button, the form is automatically emailed to the program director.	Comments
gistration Form	Email •	
	Confirm Email	Choose Your Programs for April 2017
	Name/Address of Site * (hospital, health department, community health center, etc.)	Please select the tele-education program(s) your site would like to participate for April 2017. All classes are from 1:00-3:00pm. Press and hold down the COMMAND/ALT key and click on the sites to make multiple selections.
		April 4th – "The Basics of Diabetes & Medications' April 11th – "Nutrition Basics" April 18th – "Clococe Control, Activity, & Stress" April 25th – "Eat Smart, Change Your Lifestyle"
	If you are registering more than 1 site, please list the name of the site below.	
	(hospital, health department, community health center, etc.) If you are not registering more than 1 site, please leave blank.	Choose Your Progams for June 2017
		Please select the tele-education program(s) your site would like to participate for June 2017. All classes are from 1:00-3:00pm. Press and hold down the COMMAND/ALT key and click on the sites to make multiple selections.
		June 6th – "The Basics of Diabetes & Medications" June 3th – "Nutrition Basics" June 20th – "Glucose Control, Activity, & Stress"
	Name/Position of Program Facilitator *	June 27th — "kat smart, Change Your Lifestyle"
		Choose Your Programs for September 2017
	Even an meliotely more than a dia place list failling an below	Please select the tele-education program(s) your site would like to participate for September 2017. All classes are from 1:00-3:00pm. Press and hold down the COMMAND/ALT key and click on the sites to make multiple selection
	Please include contact information.	September 5th – "The Basics of Diabetes & Medica September 12th – "Nutrition Basics"

# **Lessons Learned**



- Necessary equipment at participating site
- Need for trained facilitator at participating site
- Website for access to educational/programmatic resources and use of technology is useful
- Easy, quick access to on-site technician for problem solving
- Interactive class components:
  - meal planning, label reading, activity with resistance bands or walking, deep breathing exercise, glucose pattern management using log books

# Physical, Staffing, and Technical Requirements:



- A space large enough to accommodate a small to medium group
- Teleconferencing equipment such as Polycom or access to Jabber Video on your computer to connect with the UVA Telemedicine Office
- A monitor large enough for group viewing
- A staff member who can do the following:
  - be present for the broadcast to facilitate the session and operate the equipment
  - print out and distribute copies of educational materials and class forms to participants
  - Fax or scan back copies of the attendance and evaluation forms following each broadcast

# **Opportunities for Partnership & Enhancing Capacity**



- Community Partnerships with Federally Qualified Health Clinics, Free Clinics, Health Departments, Senior Centers, Fitness Centers, and Libraries to provide the program
- Health System Partnerships provide training and technical assistance to DSME programs that have videoconferencing capabilities to offer diabetes teleeducation classes to satellite offices.

### Questions





### Anne Wolf, MS,RD amw6n@Virginia.edu

### Viola Holmes, MS,RD, CDE vjf7j@Virginia.edu