NCHPH
Diabetes Learning Collaborative – session 4

CHWs of the Future – Virtual Visits and Technology

Learning Objectives

Discuss	Discuss 21st Century Health Care Challenges
Describe	Describe the Difference Between Telehealth and Telemedicine
List	List Virtual Diabetes Prevention Interventions Engaging CHWs
Identify	Identify Diabetes Prevention Promising Practices through Virtual Visits

21st Century – Health Care Challenges

- Health Care for the Aging Population

By the year 2030, the number of people over 60 years of age will increase by 56 percent, from 900 million to 1.5 billion. In the United States alone, the number of Americans over the age of 65 is expected to double from roughly 50 million today to nearly 100 million by 2060.

Healthcare in the Age of Climate Change

- Climate change is a public health concern that continues to escalate: [UN scientists estimate](link) we have only 12 years left to keep global temperatures from rising above 1.5 degrees Celsius.

- This is a crucial number. If we don't hit that goal, we'll see drought, food scarcity, and an increase in extreme weather that will cause injuries and deaths.

Healthcare and Multimorbidity

- [Research](#) shows that nearly ⅓ of all Americans suffer from multiple chronic conditions. This is called multimorbidity, and is growing increasingly prevalent across the world.

- Multimorbidity also increases with age, and as more of the population ages and lives longer than before, multiple chronic conditions won't be far behind.

Healthcare for those Suffering Mental Illnesses

- Increasing numbers and understanding about mental illness also has a direct impact on current medical trends.

- Around the world mental illness is causing injury and death for millions of people. It is also costly and difficult to diagnose and treat.

- Similarly, the opioid crisis is attributable for the highest death, suicide, and overdose death rates in the United States. Many individuals with substance use disorders have co-occurring mental health conditions that are untreated.

- Additionally, stigmas associated with mental health by providers and patients alike interfere with proper diagnosis and treatment.

Case Study

Mrs. Garcia is an 89-year old widow who has difficulties communicating in English. She has been living in public housing with one of her granddaughters for the past 2 years because her family have been unable to cope with her nursing needs following a stroke in 2012, which has affected her right side and her speech. Mrs. Garcia is unable to manage the normal activities of daily living. She was diagnosed with type 2 diabetes 20 years ago. Mrs. Garcia had taken a great interest in her diabetes when she was able to but since having a stroke and the death of her spouse in 2013, she has not been able to participate in her own personal and diabetes care. Over time Mrs Garcia has become increasingly frustrated because she is unable to communicate how she is feeling, or what her needs are. This week you are going to communicate with Ms. Garcia virtually via Zoom, and you are preparing to make sure you provide an effective diabetes care management and support.

Telemedicine Vs. Telehealth

What is telemedicine?
Telemedicine is the practice of medicine using technology to deliver care at a distance. A physician in one location uses a telecommunications infrastructure to deliver care to a patient at a distant site.

What is telehealth?
Telehealth refers broadly to electronic and telecommunications technologies and services used to provide care and services at-a-distance.

What is the Difference between Telehealth and Telemedicine?

- **What's the difference?**
  Telehealth is different from telemedicine in that it refers to a broader scope of remote health care services than telemedicine. Telemedicine refers specifically to remote clinical services, while telehealth can refer to remote non-clinical services.

Removing Barriers to Implementing Virtual Care

- The COVID crisis has forced telemedicine into the spotlight and, at least temporarily, made it the new norm for new onsets with type 1 diabetes (T1D), inpatients, diabetic ketoacidosis, and diabetes management during pregnancy.[2–5] Telemedicine has the potential to level the playing field and allow us to decentralize health care so that specialty care is available to the masses. We must seize the opportunity that is in front of us due to the pandemic, expand the use of telemedicine, and never look back. The technology exists to radically change the course of health care, start taking care of the whole person, and not allowing geography to dictate outcomes. Shame on us if we do not change.

6 Benefits of Virtual Health in Managing an Epidemic

- Virtual health technologies provide patients with the opportunity to be more active participants in their own care plans. Many diabetic patients already inject themselves with insulin or monitor their blood sugar levels at home and remotely share the results. Progressing to virtual care feels like a natural next step for patients who are often self-reliant, making them ideal candidates to become some of the first-generation telemedicine adopters.

6 Benefits of Telehealth

- Consistent monitoring
- Support for lifestyle modifications
- Patient and Family Engagement
- Depression Treatment
- Preventative programs
- Cost control

Examples and Best Practices

- The Catalina Island Telemedicine Center was established to help residents of Santa Catalina Island, located off the coast of California, to access specialty care electronically. Some telemedicine services offered include diabetic education and eye screenings. To help residents see specialist providers, the telemedicine center partnered with Loma Linda University Medical Center, the Los Angeles County Department of Mental Health, and a private psychiatry company.

- Project ECHO provides evidence-based programs for managing complex conditions, including diabetes. This model extends care to rural patients through videoconferencing and is used in communities across the country.

Telemedicine Training and Support for Community Health Workers: Improving Knowledge of Diabetes

- **Abstract**

- *Background:* Community health workers (CHWs) are a well-established source to improve patient health care, yet their training and support remain suboptimal. This limits program expansion and potentially compromises patient safety. The objective of the study was to evaluate the feasibility and acceptability of weekly training and support by telemedicine (videoconferencing).

- *Materials and Methods:* CHWs (n = 6) who led diabetes group visits for low-income Latinos met weekly with a health care professional for training and support. Feasibility and acceptability outcome measures included telemedicine usability, knowledge of diabetes (baseline to 6 months), and program satisfaction.

- *Results:* Telemedicine training and support were found to be feasible and acceptable as measured by usability (Telehealth Usability Questionnaire: average 4.7/5.0, ±0.4), knowledge (Diabetes Knowledge Test: pretest 15.8 ± 1.3, posttest 21.8 ± 1.2, p < 0.001, respectively), and satisfaction (Texas Department of State Health Services survey: average 5.8/6.0, ±0.5). All CHWs preferred telemedicine to in-person training.

- *Conclusions:* Telemedicine is a feasible and acceptable modality to train and support CHWs.

Virtual Visits and Interventions

- Interventions that engage CHWs to focus on diabetes prevention aim to reduce one or more risk factors for type 2 diabetes among members of the community.

- CHWs deliver program content through group sessions or one-on-one interactions with individuals at increased risk for type 2 diabetes.

- CHWs may provide education about diabetes prevention and lifestyle modification, or informal counseling, coaching, and extended support for community members.

- Intervention activities may take place in homes or community-based settings.
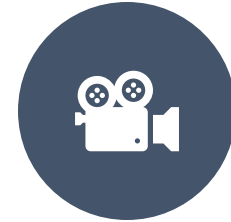
Telehealth Technologies and Outreach

TEXT MESSAGING

SMART PHONE APPS

WEBSITE

PHONE

VIDEO

VIRTUAL

MULTIPLE TECHNOLOGIES

Health Apps

fulfillment, with goal setting, a daily planning tool for day-to-day tasks and longer-term goals, and written and visual features to help you track your feelings in detailed ways that can help you better understand what brings your life purpose.

Health and Nutrition Guide & Fitness Calculators

Android rating: 4.4 stars

Price: Free with in-app purchases

Trying to actively diet and lose weight can seem like math when you try to break down macros, parse ingredients, or seemingly calculate every calorie. This app helps you understand how the choices you make about your overall diet, rather than fixating on certain nutrients, affect your health and nutritional intake. It provides detailed information about the benefits of many healthy foods for vegetarians and meat eaters. It also lets you calculate your BMI and other body measurements to see how changes in your diet result in either positive or negative health results.

Project ECHO

Endocrinology TeleECHO™ Program
— DIABETES (ADULT) CASE PRESENTATION TEMPLATE —

PLEASE NOTE that Project ECHO® case consultations do not create or otherwise establish a provider-patient relationship between any UNMHSC clinician and any patient whose case is being presented in a Project ECHO setting.

Date: _____ **Presenter Name:** _____ **Clinic Site:** _____
ECHO ID: _____ ☐ **New** ☐ **Follow Up** **Patient Age:** _____ **Designated Sex:** ☐ Male or ☐ Female

Primary Insurance: _____
Secondary Insurance: _____
Race: ☐ American Indian/Alaskan Native, ☐ Asian, ☐ Black/African American, ☐ Native Hawaiian/Pacific Islander,
      ☐ White/Caucasian, ☐ Multi-racial, ☐ Other: _____, ☐ Prefer not to say
Ethnicity: ☐ Hispanic/Latinx, ☐ Not Hispanic/Latinx, ☐ Other: _____, ☐ Prefer not to say
Preferred Language: ☐ English, ☐ Spanish, ☐ Navajo, ☐ Other: _____ **Interpreter Required?** ☐No ☐Yes
Patient Goals: _____
Main Question: _____
_____

Medical History

Diabetes Type: ☐ Type 1 Diabetes, ☐ Type 2 Diabetes, ☐ Other: _____ **Year of Diagnosis:** _____

Years on Insulin: _____ **Family History of Diabetes?** ☐ No ☐ Yes **Family History of Early CAD?** ☐ No ☐ Yes

Symptoms:
☐ Blurring Vision   ☐ Burning/Numbing of Extremities   ☐ Depression   ☐ Increased Thirst/Urination

☐ Fatigue   ☐ Weight Change Since Last Clinic Visit: ☐ Weakness   ☐ Other: _____
               Increase_____lbs. Decrease_____lbs.

PMHx:
☐ Gastroparesis   ☐ Nephropathy   ☐ Neuropathy   ☐ Retinopathy

☐ Coronary Artery Disease ☐ Congestive Heart Failure ☐ Hypertension   ☐ Hyperlipidemia

☐ Hypothyroidism   ☐ Metabolic Syndrome   ☐ Obesity   ☐ Osteoarthritis

☐ Peripheral Vascular Disease ☐ Urinary Tract Infection ☐ Obstructive Sleep Apnea ☐ Schizophrenia

☐ Anxiety Disorder   ☐ Bipolar Disorder   ☐ Depression   ☐ Eating Disorder

☐ Other_____

South Central Foundation – Promising Practice

Southcentral Foundation (SCF) is an Alaska Native-owned, nonprofit health care organization serving Alaska Native and American Indian people living in Anchorage, Matanuska-Susitna Borough, and 55 rural villages in the Anchorage Service Unit. SCF operates the Nuka System of Care, a customer-driven, relationship-based health care system, where SCF patients are referred to as customer-owners.

SCF's Diabetes Management Program has a two-pronged approach, using data and Community Health Aides:

2-Pronged Approach

- **Using Data**

SCF has created a diabetes registry and action list that captures the preventive, screening, and disease/condition status of each provider's panel. It includes information on customer-owners' risk factors, co-morbid conditions, guideline-based elements of care, including test results, and data on UDS measures. UDS data are reviewed monthly and other clinical data are reviewed weekly. These action lists, which are available on the SCF intranet, are designed to provide clinical teams with the evidence-based information they need to care for their customer-owners. Data drives quick action so if a customer-owner is identifie

- **Community Health Aides Program (CHAP)** has a unique challenge with providing care to its population—the majority of the villages it serves are accessible only by plane or snowmobile, depending on the season. This makes caring for customer-owners with chronic conditions, such as diabetes, difficult.

- The Community Health Aide Program (CHAP) HRSA BPHC Exit Disclaimer is unique to Alaska and is an integral health care provider group in rural areas. Community Health Aides (CHAs) are high school graduates who have received training to provide remote care by protocol, including diabetes management. Living and working in remote Alaskan communities, they are supported by distant site SCF physicians through telehealth. They follow up on the diabetes action lists with customer-owners in these locations, connect customer-owners to specialty services using telehealth and help coordinate health educator visits to these remote sites. They also encourage customer-owners to use the My Alaska Wellness app to communicate with providers, view their medical record and access diabetes lifestyle management resources.

How to Implement

- While CHAP is a Tribal organization, health centers serving other populations in remote settings can replicate elements of the CHAP model. Some of the replicable parts of SCP's diabetes management program are:

- Updating clinical data from the EHR daily into SCF's database. Having a department focused on data drives systematic improvement. System-wide data that drills down to the individual level make it possible for SCF to manage the sites over its remote service area.

- Creating action lists in the EHR, to get a snapshot of a patient's overall health and a checklist of actions to take to help the patient with diabetes management.

- Reviewing data on a weekly and monthly basis to identify patients who need follow up

- Having at least one on-site staff member in remote clinic sites who is trained to assess and refer patients

- Using telehealth to connect to specialists and health center primary care providers

- Encouraging patients to use technology, such as apps and patient portals, to communicate with practitioners and find resources

- Bringing health educators to remote sites on a regular basis

Case Study

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Case Study

- What would you like to know about Ms. Garcia before your virtual visit?

- What tips would you give to your patient to prepare for her first virtual visit with you?

- What would you do to make sure she understands your instructions?

- What would you do to make your virtual visit interactive?