



Panel Presentation: Using Technologies to Increase Health Literacy, Reduce Readmissions, and Manage the Health of Populations

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Session Objectives

1. Provide an overview of problems experienced with managing patients with Congestive Heart Failure (CHF), Chronic Obstructive Pulmonary Disease (COPD) and Diabetes.
2. Review goals, objectives, methods, and outcomes of our readmission and health literacy studies.
3. Identify best practices, lessons learned, and share strategies for clinical integration.
4. Discuss future implications in population health management.



Supporting Chronic Condition Care Coordination and Readmission Avoidance: Community Relationships and Data Infrastructure

Kristin Jenkins, JD, MBA, FACHE

President

Dallas-Fort Worth Hospital Council Education and Research Foundation



• Mission

- To serve as a catalyst for continual improvement in community health and healthcare delivery through education, research, communication, collaboration and coordination.

Vision

Act as a trusted community resource to expand knowledge and develop new insight for the continuous improvement of health and healthcare.

Foundation Structure

Information and
Quality Services
Collaborative**

Texas Quality
Initiative

Community Health
Collaborative**

North Texas
Regional
Extension
Center

Board of
Trustees

Research
Collaborative

Workforce
Development
Center

Relationships and History

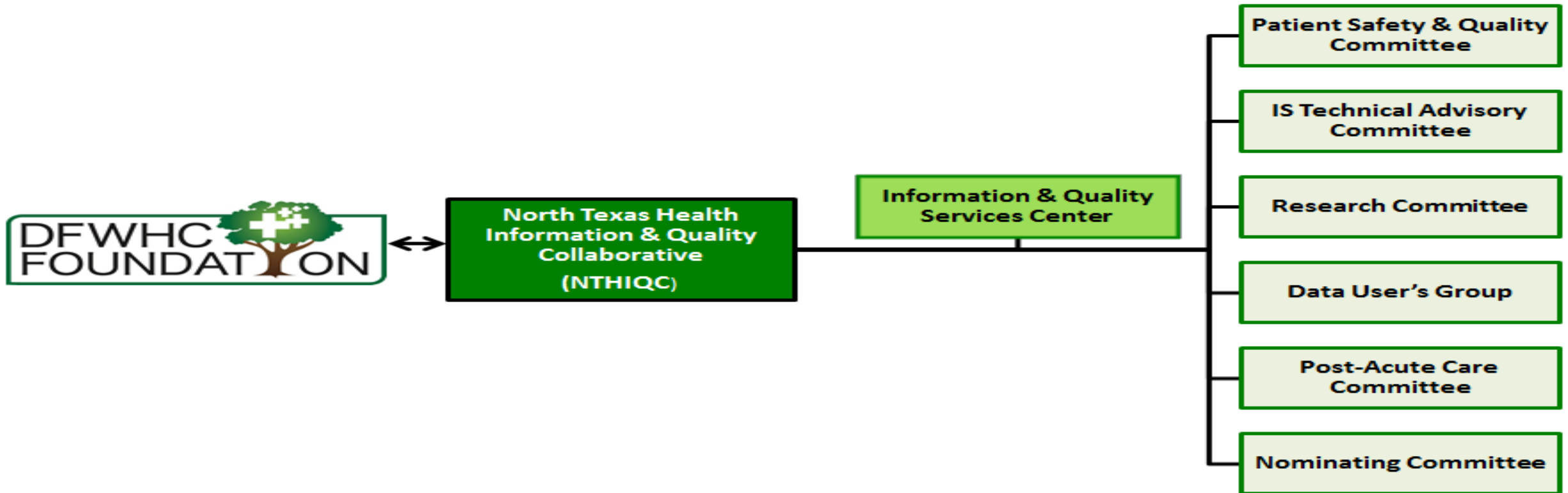


History

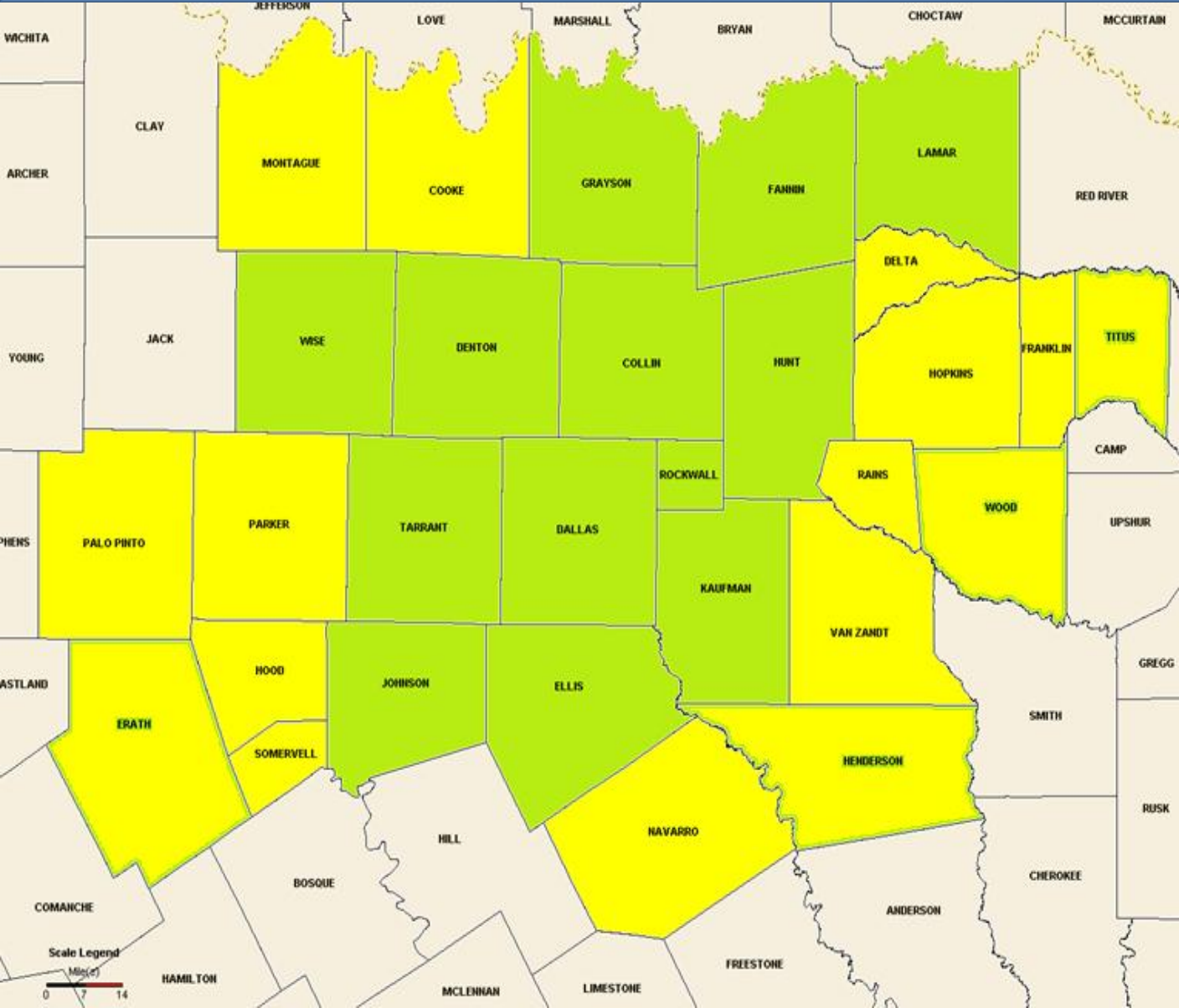
1. Non-profit foundation affiliated with Dallas-Fort Worth Hospital Council – 48 years
2. Information & Quality Services Center
 - a. in existence for 15 years
 - b. Services contracts in place with Business Associate Agreements
 - c. More than 90 facilities participate
 - d. Data submitted to the Texas Healthcare Information Collaborative
 - e. Robust open sharing through analytics
 - f. Patient Safety and Quality Committee
3. Community Health Collaborative
 - a. 40+ community participants
 - b. Focus on chronic conditions

Committee Sub-Structure for Data Management/Use

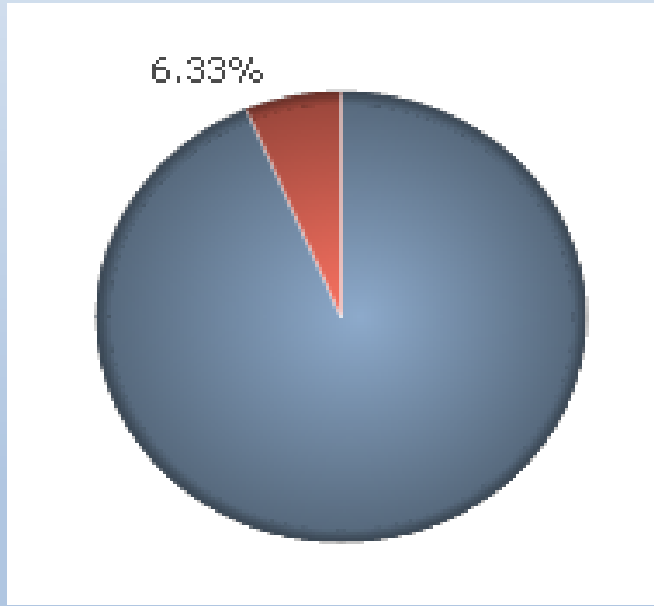
NTHIQC Organizational Structure



How much data is captured in the DFWHC Data Warehouse for Acute Care Facilities?



DFWHC	93.67%
Not Submitting to DFWHC	6.33%



General Description of Information Submitted

- Claims from all participating hospitals
- No “blinding” of any data elements
- All payers - including self-pay patients
- All patient encounters except
 - outpatient lab
 - hospital-based outpatient clinic

The image shows a detailed view of a medical claim form, likely a UB-92 form, which is used for submitting claims to health insurance payers. The form is tilted and overlaid on the text. It contains various fields for patient information, insurance details, and medical services. Key sections include:

- Header Section:** Includes fields for patient name, date of birth, sex, and insurance type.
- Insurance Information:** Fields for health plan ID, creation date, and insurance group name.
- Patient Information:** Fields for patient name, unique ID, and group name.
- Medical Services:** Fields for treatment authorization codes, document control number, and employer name.
- Procedure Codes:** Fields for procedure codes, dates, and other procedure codes.
- Remarks:** A section for additional notes or remarks.

**Outpatient Claims
Information *Unique*
to DFWHC
Foundation**

- ✓ Physician ID and Name
- ✓ ER Encounters with NYU
Algorithm back to 2006
- ✓ Observation, GI and Cardiology
Encounters
- ✓ Skilled Nursing Facility MDS File



Congestive Heart Failure: Implementing Patient-Centered Care Using Mobile Technology

Crystee Cooper, DHEd, MPH, LSSGB, CHES

Director of Health Services Research

Dallas-Fort Worth Hospital Council Education and Research Foundation

Congestive Heart Failure (CHF)

Local Readmissions > National

		Hospital A	Hospital B
% CHF readmits ≤ 30 days		22%	23%
Race	African-American	27%	26%
	Hispanic	7%	14%
	White	62%	58%
Sex	Male	54%	46%
	Female	41%	49 %

CHF Readmissions

- Minorities disproportionately impacted
- Cultural and linguistic barriers identified
- Most patients “Below Basic” health literacy

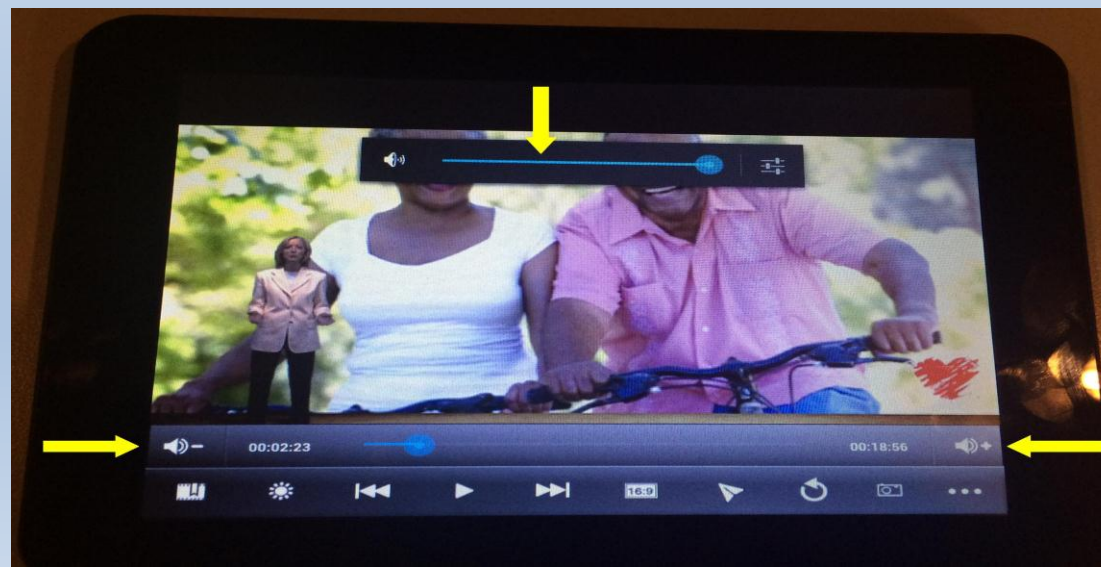


CHF Translation Pilot

- Increase discharge instruction compliance
- Reduce readmissions
- Implement CLAS
- Improve health literacy



CHF Translation Pilot



CHF Translation Pilot

- Active recruitment for 10 months
- Screened for eligibility
- Education and training at bedside
- Tracked 30-day readmissions



CHF Translation Pilot

- n=30 (17 women, 13 men)
- Mean age of 68 years
- Multiple languages
- Improved health literacy and outcomes

**Project Expansion and Lessons Learned: Using Technology to
increase Patient and Caregiver Understanding of Chronic
Obstructive Pulmonary Disease (COPD)-Empowering the
Patient to Participate in Their Care**

Patti Taylor, RRT, MHA

Director of Quality and Patient Safety

Dallas-Fort Worth Hospital Council Education and Research Foundation

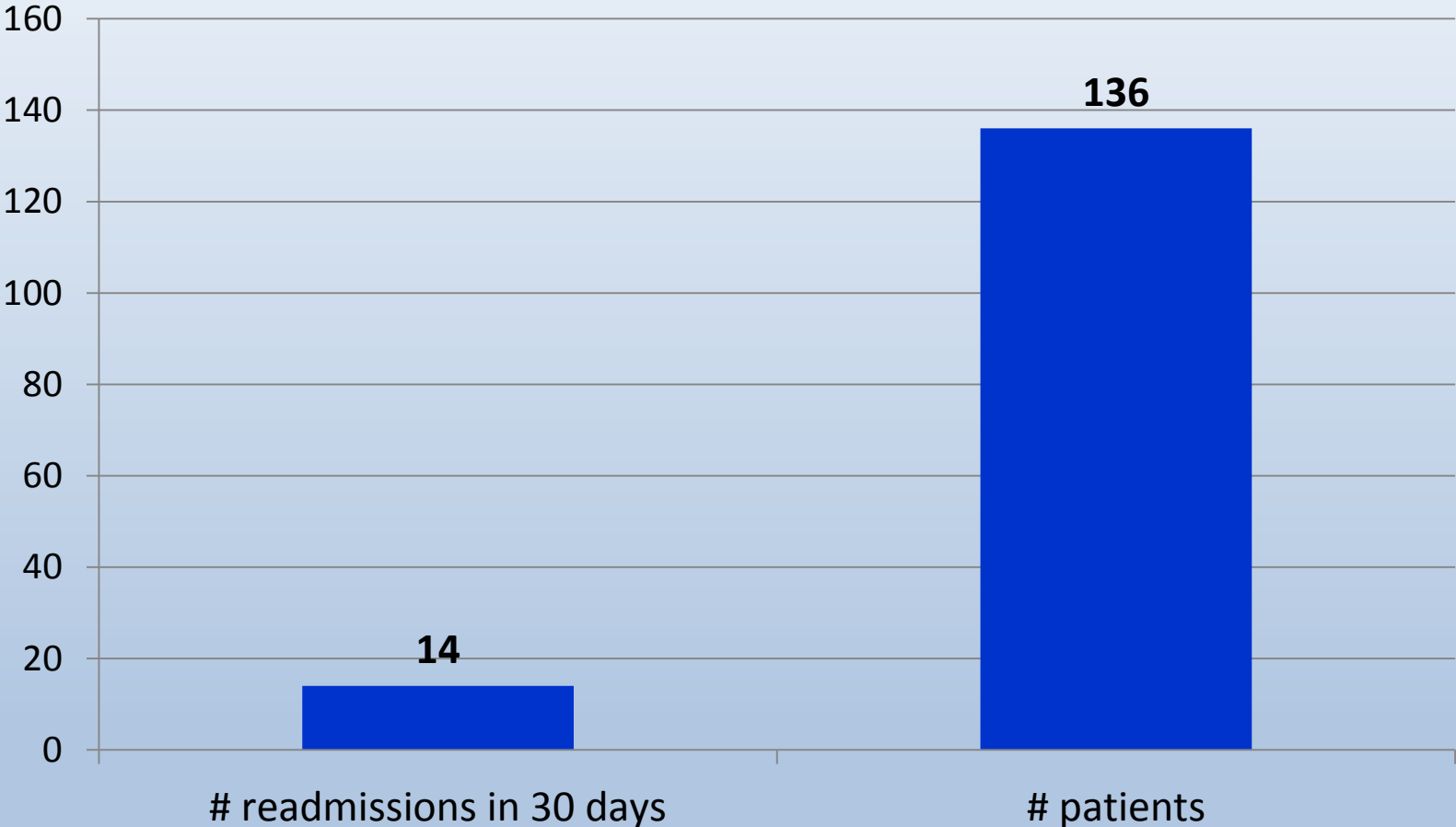
Expanding the Project

- Expanding # hospitals with CHF tablets
- New disease state added- COPD
- Identifying educators
- Identifying patients

Results

- CHF 2013-present
- COPD 2014-present

CHF Patients Enrolled



CHF Patients Enrolled

DFW AVG readmission rate

17.1%

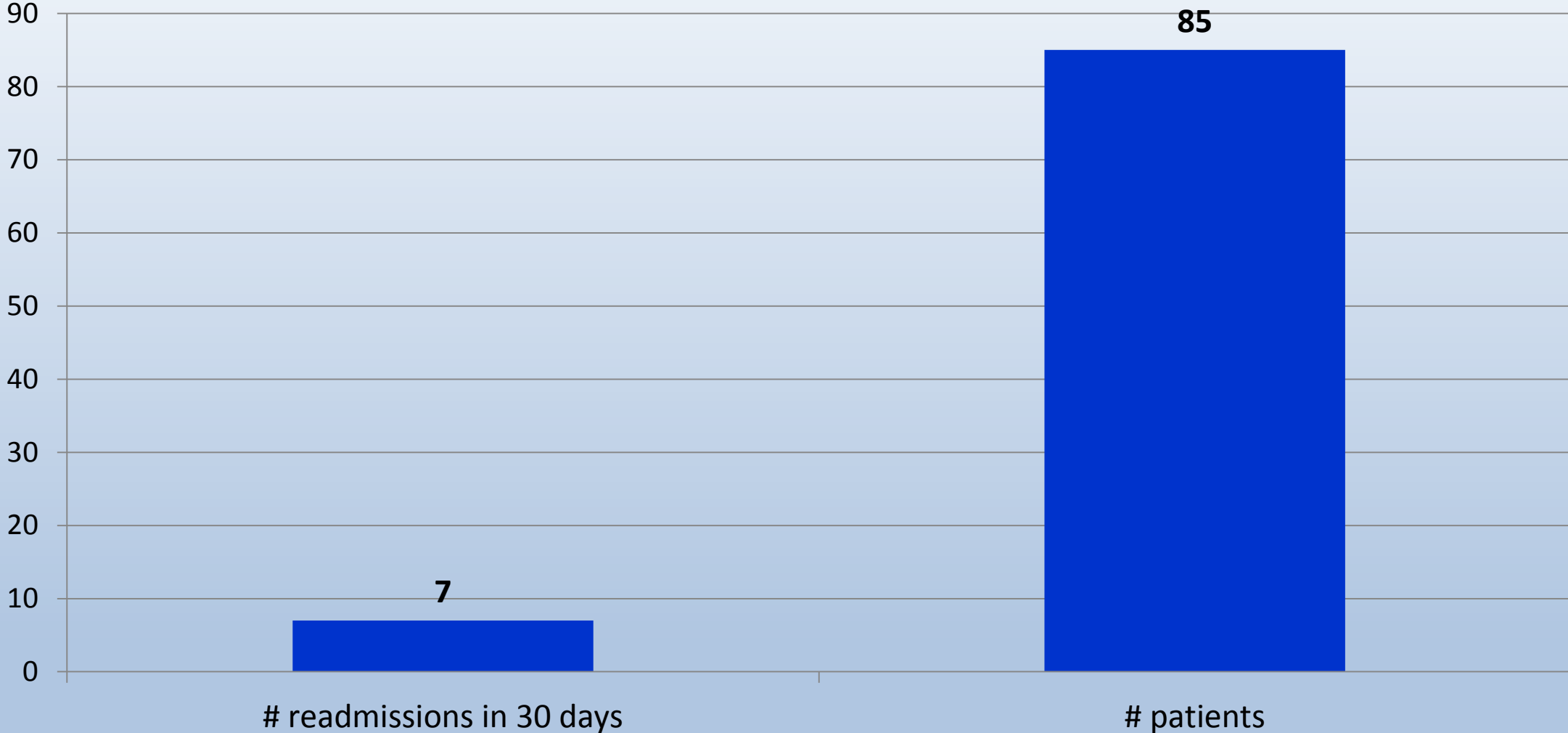
% readmission rate discharge project

10.29%

0.00% 5.00% 10.00% 15.00% 20.00%



COPD Patients Enrolled



COPD Patients Enrolled

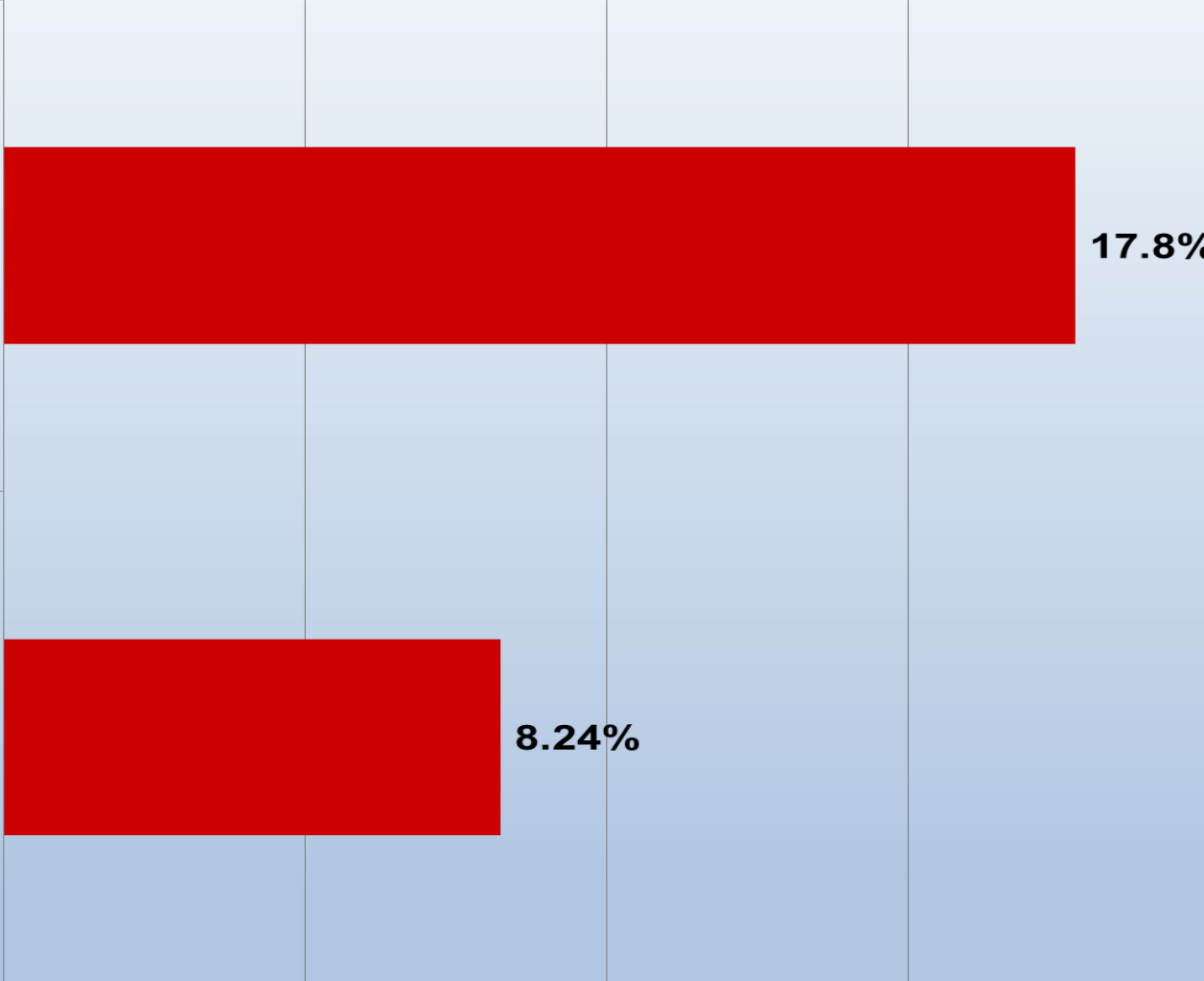
DFW AVG readmission rate

17.8%

% readmission rate discharge project

8.24%

0.00% 5.00% 10.00% 15.00% 20.00%



Lessons Learned

- Patient
- Device/System
- Hospital process

Lessons Learned

Patient:

- Patient acceptance
- Physical limitations
 - Eyesight
 - Hearing
- Language preference



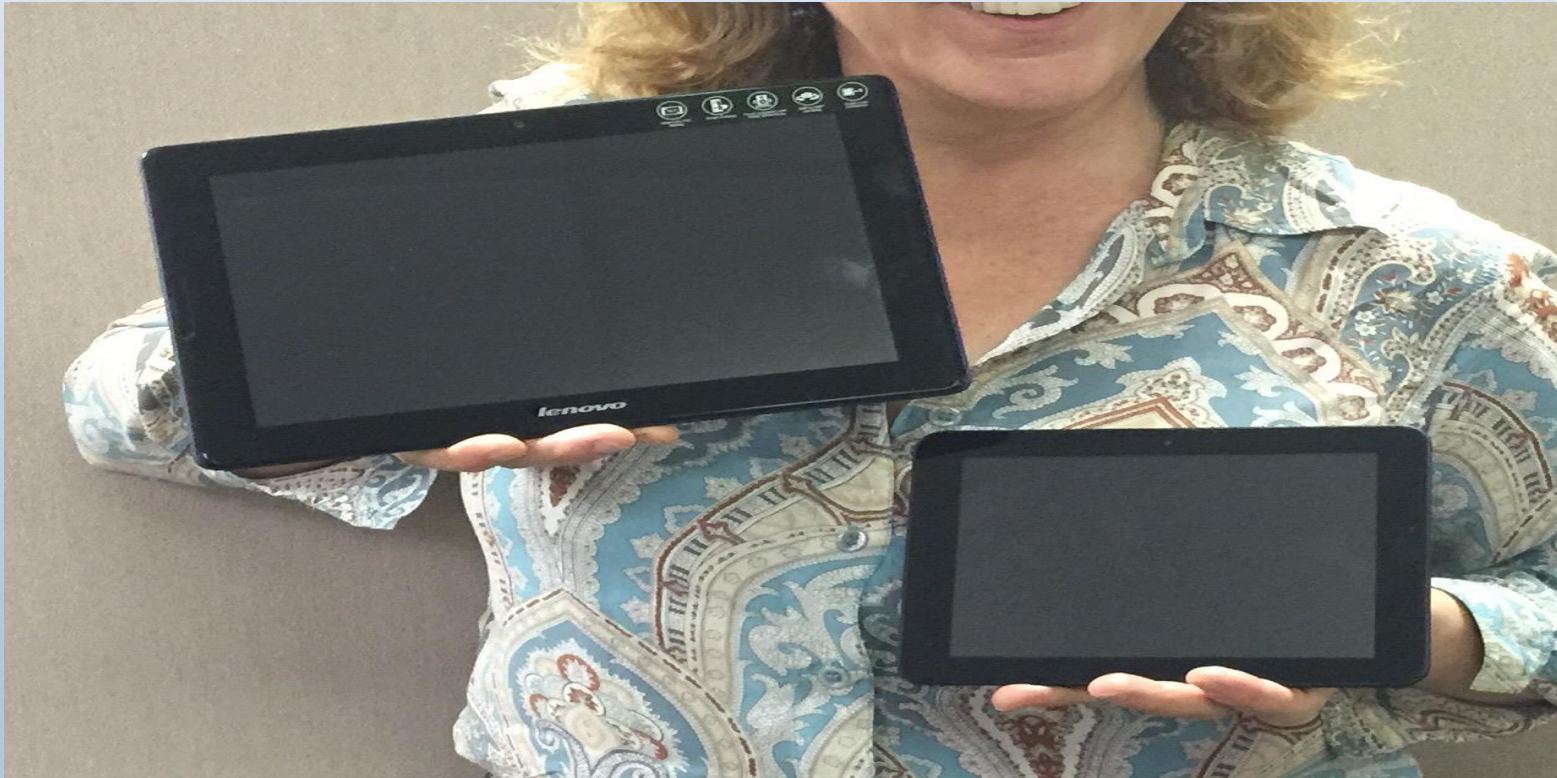
Lessons Learned

Device/ System:

- Size
- Video Quality
- Chapters

Lessons Learned

- Device Selection

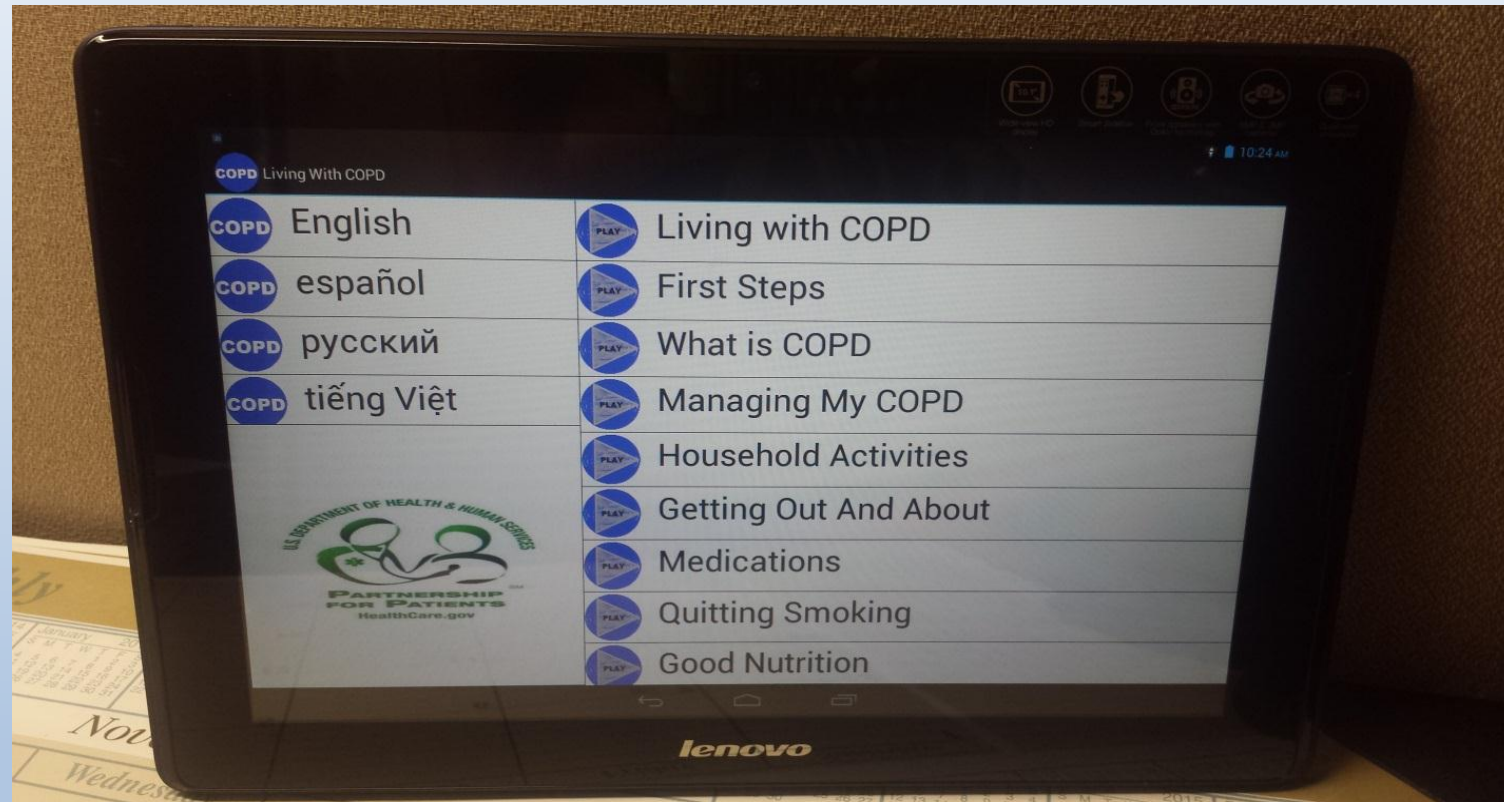


Lessons Learned

- Device Selection



Lessons Learned



Lessons Learned

Caregiver:

- Initial contact person
- Infection prevention
- Device protection from damage
- Secure system for storage
- Tracking system

Looking Ahead

- Continue to expand # hospitals
- Expand to other diseases
- Develop an APP
- Funding for more tablets or DVD players

Use of Technologies to Eliminate Chronic Disease Disparities Across Vulnerable Populations

Sushma Sharma, PhD

Director of Population Health

Dallas-Fort Worth Hospital Council Education and Research Foundation

Digital Health Technologies

...offer the potential to transform health by making it

- More responsive to consumers' needs
- Easy to design for specific objectives
- Convenient for patients to access and use
- Efficient and satisfying for providers to deliver

Technology in Population Health

- Efficient and faster way to approach communities
- Best way to educate patients and care givers
- Can be translated in multiple languages to address linguistic disparity
- Can be delivered at appropriate literacy levels
- Easiest way to monitor, manage and measure

Dallas-Fort Worth, Texas

- One of the fastest growing and rapidly diversifying area in the nation
- For 43.2% population, English is not their primary language
- Nearly 33% of residents are uninsured (not including undocumented residents)
- About 19% of the population is below the poverty level

Disparities in Dallas-Fort Worth

Several disparities have been identified related to

- language and culture
- ethnicity and race
- income and poverty
- literacy
- healthy food access
- health and diseases
- access to health care

Diabetes in Dallas-Fort Worth

Prevalence of Diabetes

- National average 8.2%; Texas State average 9.7%; Dallas County average 11.4% (TDSHS)

Diabetes in Dallas

- In 2012, 35% of the top five inpatient diagnoses had diabetes as an underlying condition (Mendoza et al.2014)

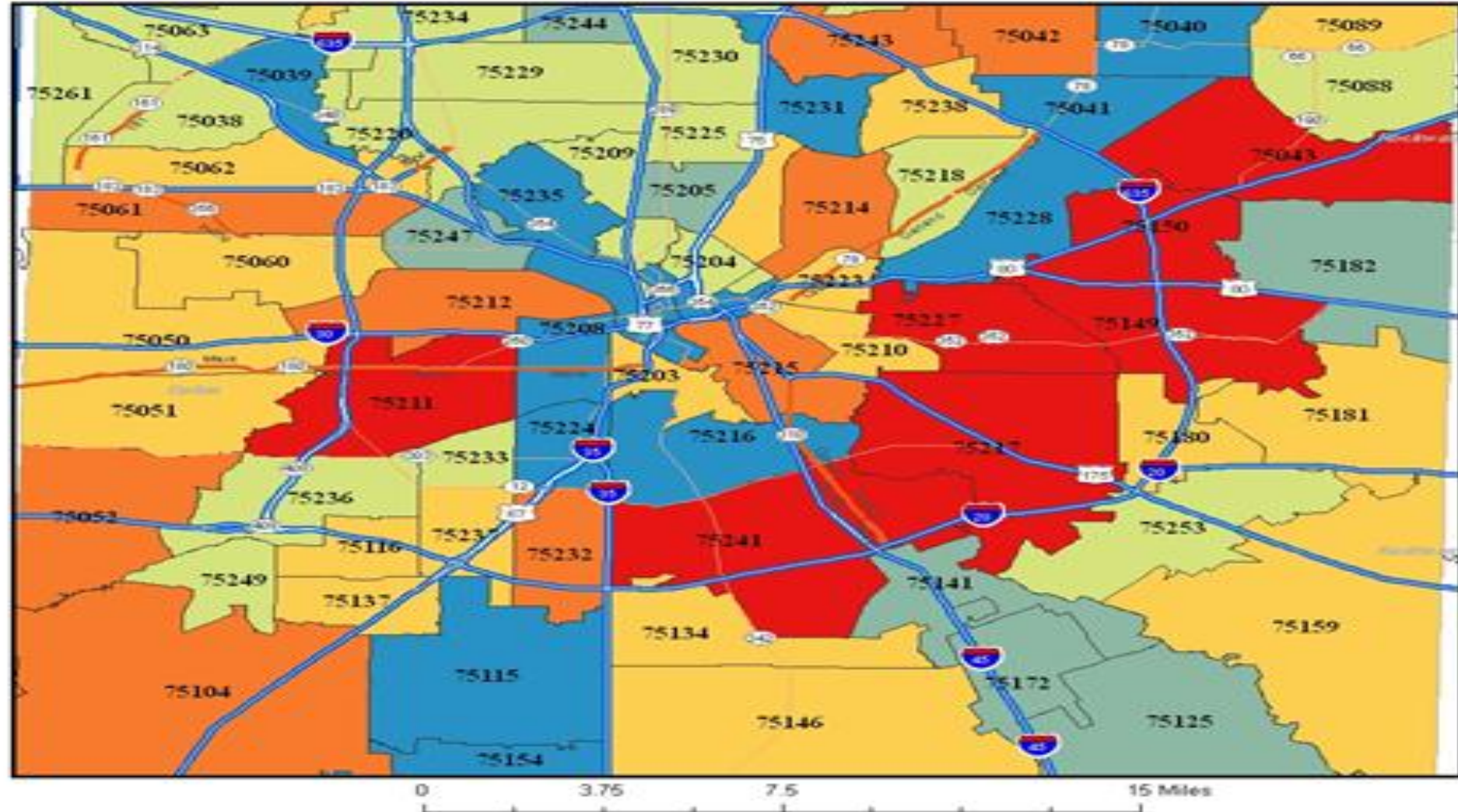
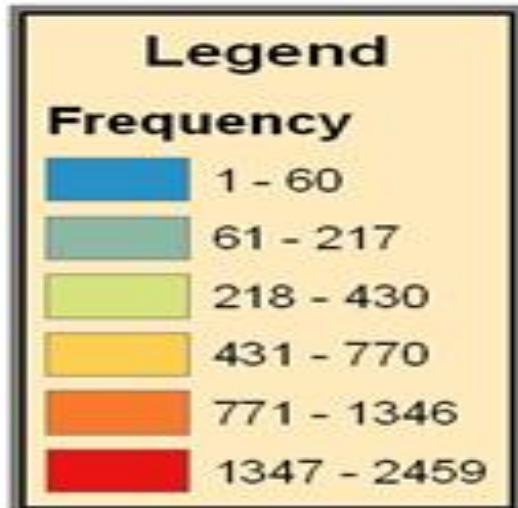
By 2025

- Texas will be home to 4 Million Diabetes patients
- Dallas-Fort Worth area may be home to well over 1 Million Diabetes patients (Rowley W, 2011)

High Diabetes Prevalence Areas



Frequency of Diabetes Patients by Zip Code



DFWHC Foundation Led Community-based Diabetes Prevention and Management Efforts



Proposed Plan for High Diabetes Populations

- Increasing access to Diabetes Prevention and Self-Management Programs using Tablets.
- Population level education and awareness efforts at appropriate literacy level.
- Addressing Language disparity by translating content in multiple languages.
- Using peer to peer education approach for sustainability of the program.

Expected Outcomes

- Increased awareness in the vulnerable populations
- Improved self-efficacy for nutrition and physical activity, healthy behavior, and health status for pre-diabetic and diabetic patients.
- Reduced hospitalizations i.e. Emergency department visits and Readmissions.



Diabetes Free
Zone