

Using e-surveying with Low Literacy Patients

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LA Net

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Disclosure

I or my immediate family members DO have an affiliation or financial interest with one of the commercial products to which my presentation refers.

The Challenge facing LA Net

- There are 224 identified languages in Los Angeles County, not including dialects. (Los Angeles Almanac)
- The *Los Angeles Times* reports 83% of the ZIP Codes contain 20 or more languages, and nearly half have 30 or more.
- Average reading level = 2nd grade

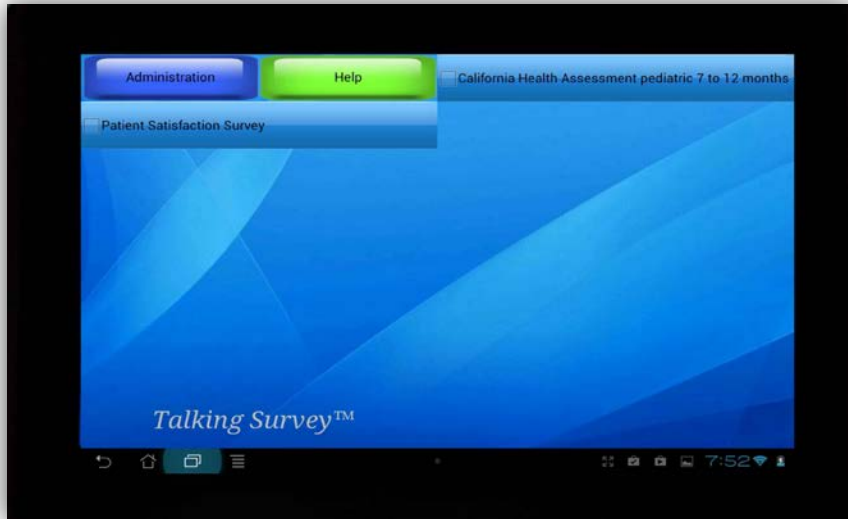
Impact

- Costly (paper surveys = \$1500)
- Difficult to staff (multi-lingual, multi-cultural)
- Uncomfortable for patients

Response

- Develop a tablet-based survey administration tool that “talks” to patients
- Tested w/ 80 patient at FQHC using survey from previous study on Obstructive Sleep Apnea
- Administration time: reduced 50% time
- Good patient satisfaction

Talking Survey



- Electronically administers any survey or form to patients (ex: registration, eligibility, PHQ9, California Health Assessment)
- Runs on low-cost Android tablets and smart phones
- “Reads” surveys to low-literacy patients reducing the need for staff assistance and providing privacy
- Translates and reads in 62 different languages using Google translate or self-translation
- Delivers individualized electronic health education to patients based on condition, demographics, survey responses
- Transmits data to EHRs, registries, warehouses for use in clinical care, QI and research
- Can be used in the waiting room, exam room, community, and the patient’s home

Next steps

- Partnership w/ DARTNet
 - Creation of redacted dataset + clinical data set
 - Ability to obtain informed consent
 - Ability to transmit to EHR using middle-ware
- Partnership w/ LA Net
 - Ability to launch individualized health education based on responses
 - HL7 interface to EHRs and registries
 - Test transmission to Office Ally
- Adapt for clinical application
 - Complete registration
 - Complete California Health Assessments (all ages, required for MediCal)
 - Increase Medicare Health Risk Assessment completion
 - Conduct PQH9
 - Provide “wait room” entertainment

Outcomes

- 5000 patients have completed surveys on the Talking Survey™ system
- Automated individualized health education delivered to 20 patients based on survey score (COPD screening)
- Time to complete survey reduced by 50% for patients
- Out of 400 tablets in use, 0 stolen or dropped
- Collaborative product development - New functionality based on requests from clinicians and staff: Examples: tablets embedded in tables, Tablet tables, population health reports with alerts, link to patient portal, more to come



Case Example

Outcomes for Florence Western

- From 0 Medicare Health Risk Assessments completed to 31 Assessments completed
- From 0 substance abuse screeners completed to 31 completed
- Patient satisfaction w/ Talking Survey: 95% satisfied or very satisfied
- 50% English, 50% Spanish
- Staff time to assist patient: 1-2 minutes
- Time to transmission of results to MA (accessed via Egnyte): 15 seconds

If Airlines Can do it why can't we?



Small Safety Net Practice -Before



Wait room of future pilot



Technical integration

HARDWARE

Android tablets
Desk top PC computer running SQL Or use TS™ server
Disposable Ear buds (40 cents each)

NETWORK

Basic Wi-Fi or cellular connection

DATA STORAGE

Engnyte Cloud file storage
EHR at practice
Or TS™ data warehouse (server)

EHR INTERFACE

HL7 interface available

SECURITY (HIPAA COMPLIANT)

AES-256 Encryption
GIS tracking/alarm system for lost tablet monitoring
Optional, automatic periodic purge of data from tablet
Password protection

STAFF TRAINING

On-site or virtual – 20 minutes

HELP DESK

9 (EST) to 5 (PST) Monday thru Friday

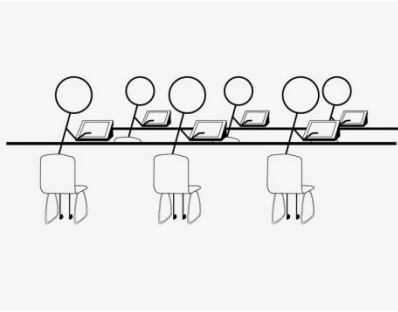
SYSTEM SPECIFICATIONS

Voices can be recorded by Human voice or generated by computer
Automatic text translation from English to 62 languages
All data is stored within SQL databases
Data storage and transmissions are encrypted using AES-256
Authorized tablets can be located anywhere on the Earth (remote locations)
Autonomous operation allows tablets to work without communications
Systems can “auto” update when new releases/versions become authorized

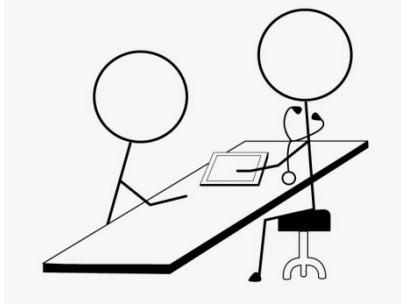


How is it used in Clinics?

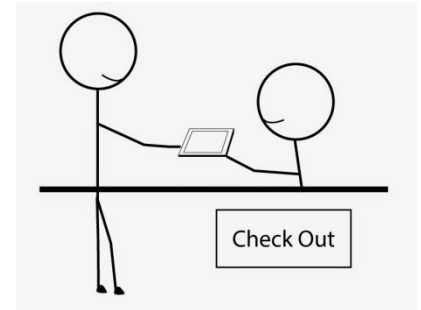
Paperless Check-in & Surveys In the Wait room



Health Education, form completion At any point during visit



Patient Satisfaction Survey at end of the visit



FQHC Use Case: UMMA

Screening, patient satisfaction & Individualized health education

Goal: Increased ability to conduct systematic screening.

Population: 70% Low-literacy, 70% Latino

Workflow:

Front desk provides patient with tablet;

Patient uses ear buds and completes survey in waiting room;

Results transmitted instantly secure server database;

Patient returns tablet

Outcomes:

61 patients screened for COPD

Average time to complete: 3 minutes

COPD education videos played for all patients with score of 5 or higher

Now Expanding use to patient registration, satisfaction survey

Examples of Surveys:

- Patient eligibility and registration forms
- Family PACT Female and Male
- California Health Assessment (all ages)
- PHQ9
- SBIRT screening (AUDIT C)
- Medicare Initial Health assessment
- CAHPS patient satisfaction survey
- Diabetes Self Management
- Quality of Life
- Your own custom surveys

Examples of Educational modules:

- COPD (Spanish & English)
- Diabetes self management
- Senior falls prevention
- Senior nutrition
- Senior exercise
- Managing depression (Spanish & English)
- Your own custom video/audio/html

Customers & Pipeline



Current Customers	Use case	Inquiries(Pipeline)	Use case
Dart Net (70 practices) (paid)	NIH research, ADHD screening & access to info at POC	L.A. County DHS	Media system, Patient reported outcomes
UMMA (non-paying beta for Wait Room of Future)	COPD screening, CAHPS, SBIRT, registration, health education	Chap Care/EPIC OCHIN users group	California Health Assessments, Behavioral health assessment
Florence Western (non-paying beta for Wait Room of Future)	Medicare Health Assessment, Family PACT forms, Screening for HCCs, PHQ9, Community monitoring of asthma symptoms	North East Valley CHC	Health education screening & delivery
LA Net Kaiser CHW project (paid)	Diabetes self-management behaviors	Oklahoma University Internal Medicine	Registration, patient screening
Home monitoring PROS of cardiovascular health (paid)	Quality of life, medication adherence	Colorado University Family Medicine	Registration, patient screening
Home monitoring PROS of INR (paid)	Quality of life, Medication adherence, patient-reported symptoms	CHF IPA	Medicare Initial Health Assessment, Health Risk Assessment, Patient satisfaction, Patient education on changes in L.A. Care coverage and for SPD patients, Patient education on PCMH care teams

Pricing and Revenue Model

Cost per tablet	
License fee per tablet (includes 3 content modules, support and maintenance)	\$85/month



Optional charges	
Tablet hardware (per tablet)	\$360
Disposable ear-buds (quantity 100)	\$40
EHR integration (one time charge)	\$500
On-site server	\$500
Egnyte file storage (per year)	\$500
Additional content modules	\$1000
Custom development	\$75/hour

Current Investment

Who has invested how much?

Principals have invested \$100,000 and 4 ½ years in development and field testing. No additional investments have been sought.

When we expect to raise additional funds?

In next 12 months seeking to raise \$1,000,000

What will we use it for?

Sales Director (1)
Site implementation specialist (1)
Part-time financial/accounting (.5)
Help Desk/Service Director (1)

Talking Survey LLC
www.talkingsurvey.com



Rusty Elston



Lyndee Knox

Sales personnel (2)
Deployment/development staff (2)
Quality Assurance Analyst (1)
Help Desk operator (2)
Marketing materials, website upgrade,
demonstration videos