



Telehealth
Resource Centers



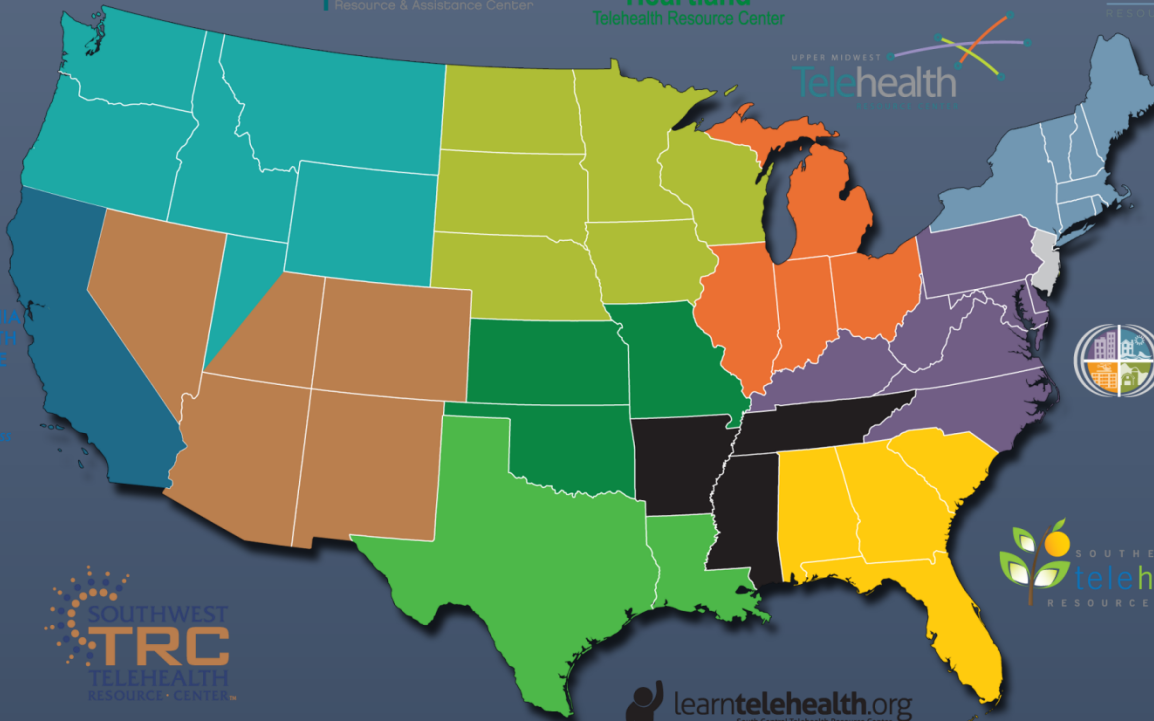
The National Telehealth Webinar Series

Presented by
The National Network of
Telehealth Resource Centers

TelehealthResourceCenters.org



Your resource for telehealth success



NRTRC	gpTRAC	NETRC
CTRC	HTRC	UMTRC
SWTRC	SCTRC	MATRC
PBTRC	TexLa	SETRC

2 National Resource Centers

12 Regional Resource Centers

The Futures of Telehealth: What you need to know now.

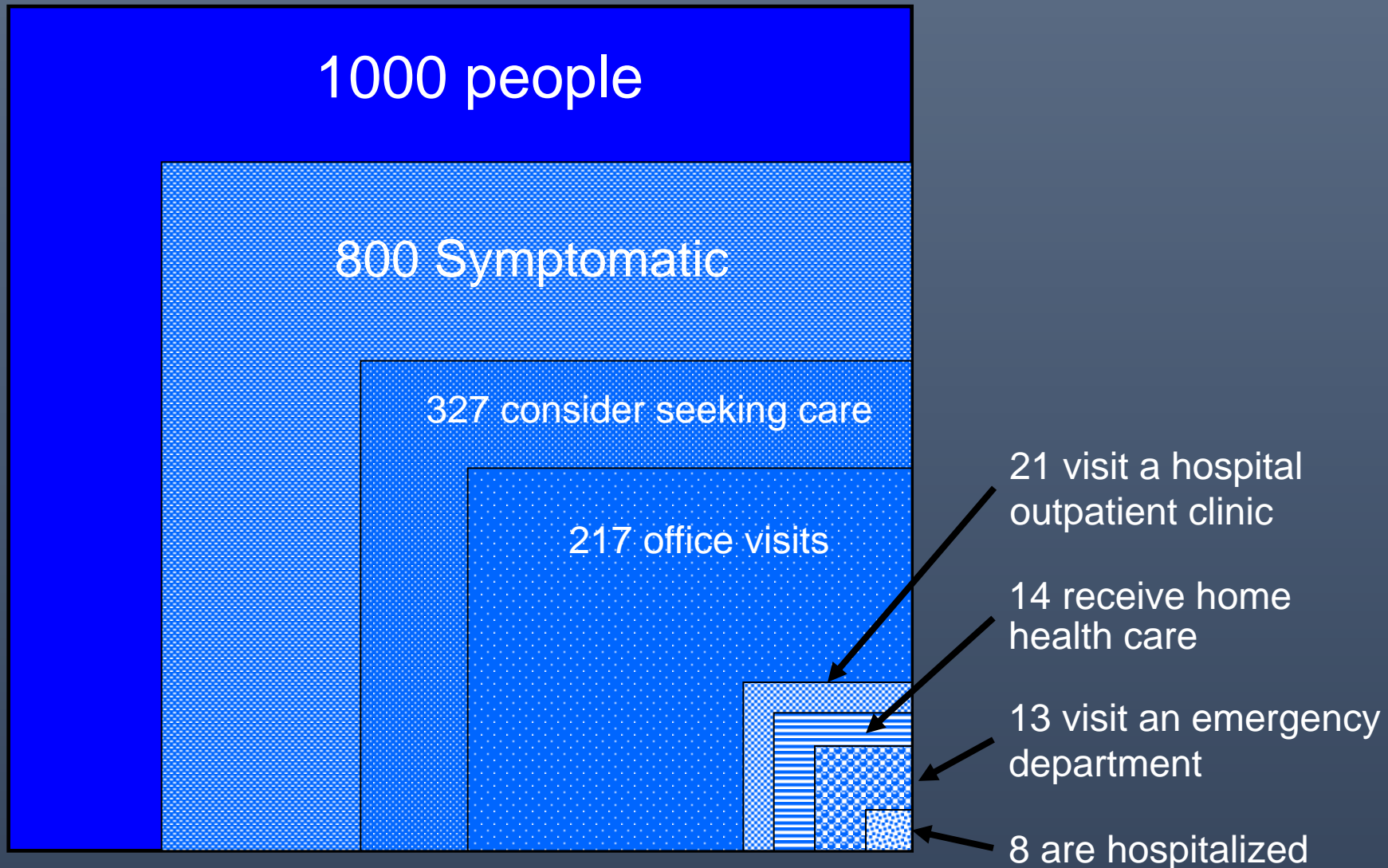
Stuart M. Speedie, PhD, FACMI
Executive Director, gpTRAC

“The future ain’t what it
used to be.”



Yogi Berra
Philosopher and
Baseball Legend

In an average month





New demands on the system

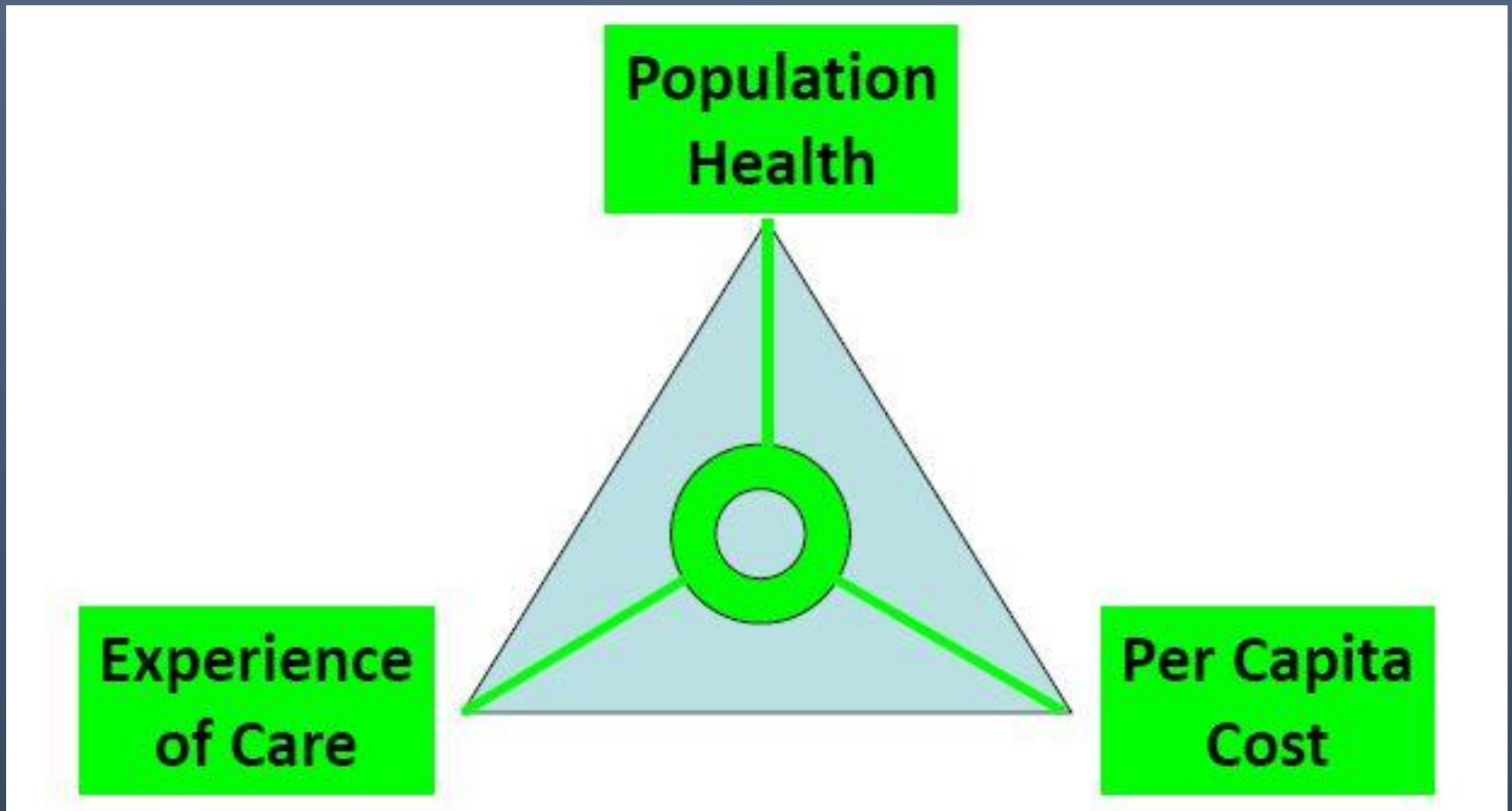
- 35 million newly insured as of 2014
- Baby boom has arrived at retirement age.

The logo for the Affordable Care Act is a dark teal rounded rectangle with a white border. The text "AFFORDABLE CARE ACT" is written in large, white, serif capital letters across the center. In the background, there are faint, repeating phrases in a lighter teal color: "SECURITY FOR OUR SENIORS", "RESPONSIBILITY TO OUR CHILDREN—NOT A DIME ADDED TO THE DEFICIT", "AFFORDABILITY FOR THE MIDDLE CLASS", and "AFFORDABILITY FOR THE MIDDLE CLASS — SECURITY FOR OUR SENIORS — RESPONSIBILITY TO OUR CHILDREN—". There are also faint star icons scattered throughout the background.

AFFORDABLE CARE ACT

- Secure for the next three years
- Congress unlikely to do anything to enable it beyond what is currently in the law
- At the end of three years – we will see.

The Healthcare Triple Aim



Fee for service is fading away.

- (sloooowly)
- Small likelihood of CMS approving any expansion of definitions or inclusion of new codes for telehealth.
- Disappearance of health care providers as artisans.

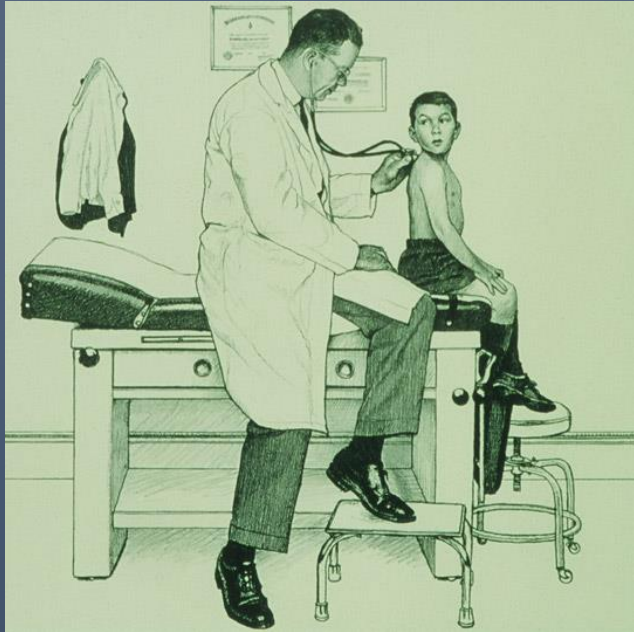


Hospitals are dinosaurs.

- They are dangerous places to be
 - Most of our serious medical errors occur there.
 - Hospital acquired diseases are still a fact of life.
- They consume the vast majority of health care resources.
- But “When they walk the earth still shakes”
- The changing nature of health care is threatening their continued viability.

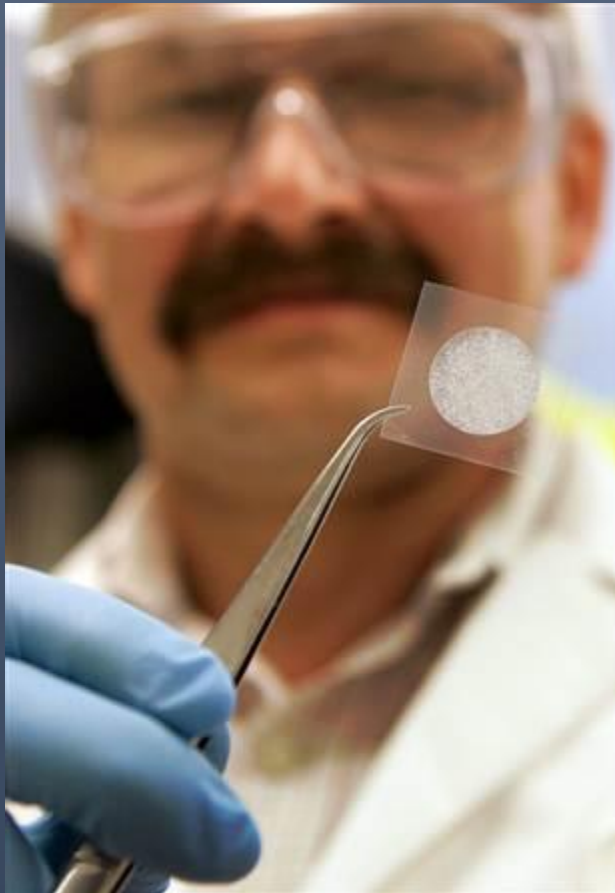


Healthcare continues to evolve.

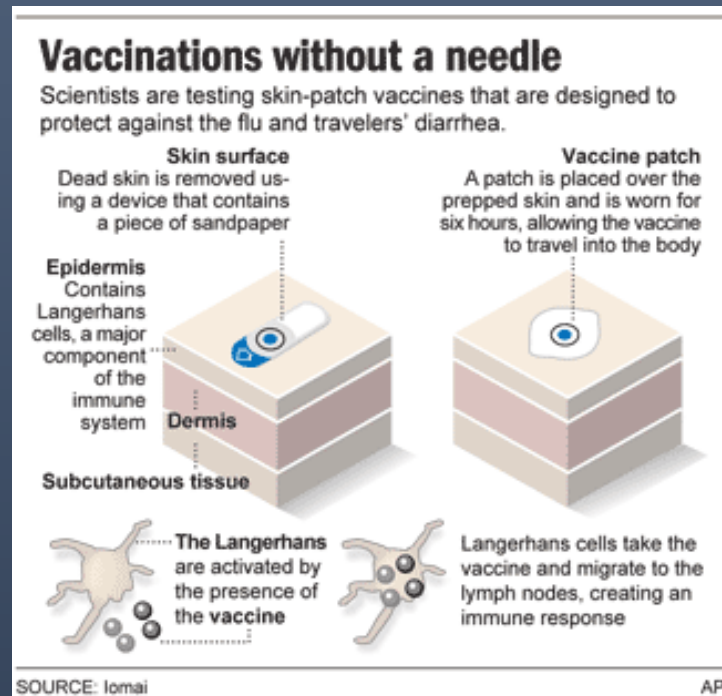


- Based on a 1950's model of care
- Individualization of care
- Some of the biggest changes are likely to come from unexpected directions:
 - Example: stomach ulcers and H. Pylori
 - My personal bet: the roles that bacteria play in the human ecosystem.

Vaccination Patches



- Easy application
- Room temperature stable up to a year.



Business Drivers for ACOs



Survival



Cost Controls



Growth



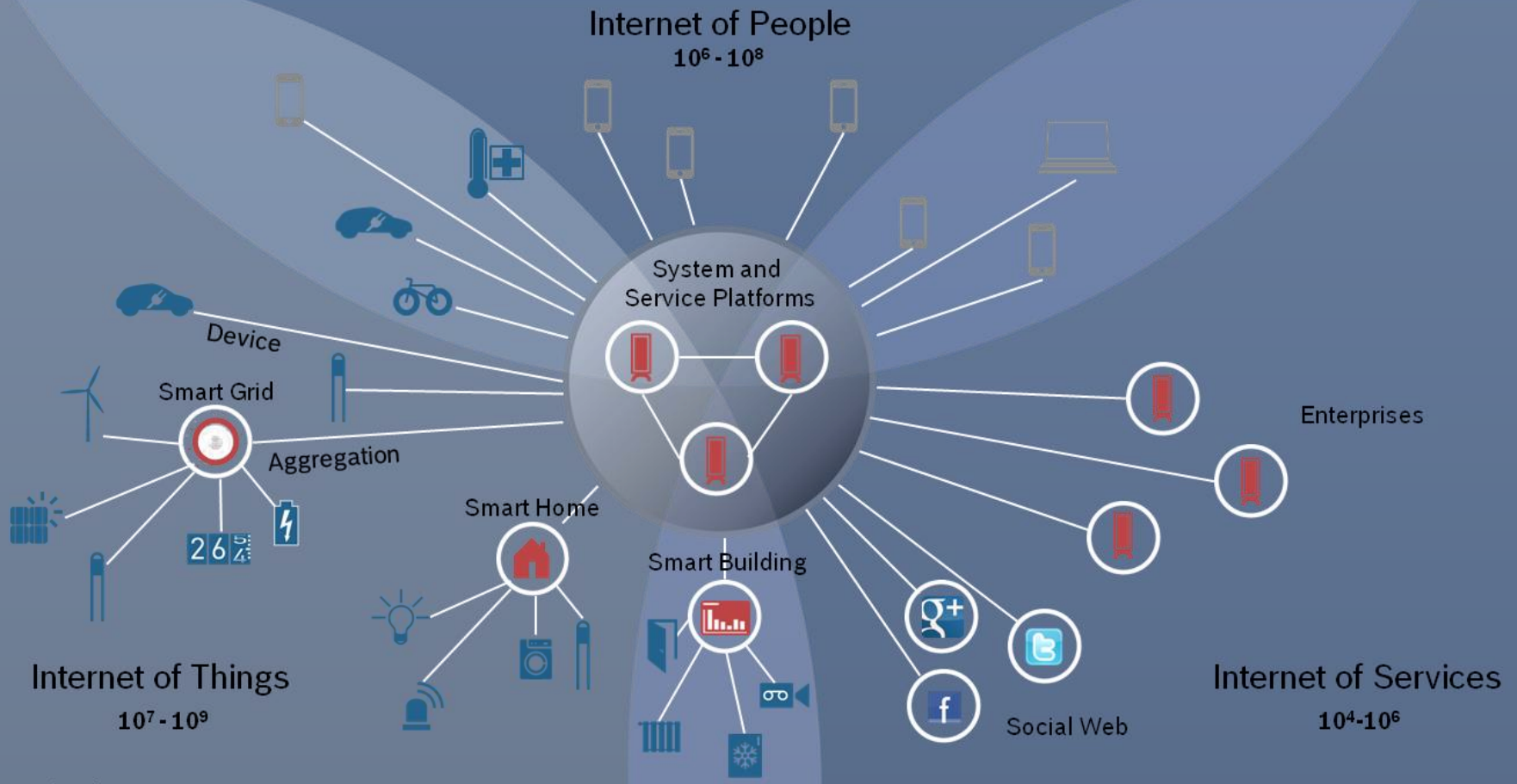
Requires a “Captive” Patient Population

Changes In Information Technology

- The Information Infrastructure
 - The highly interconnected telecommunications web.
 - Very large scale data and the ability to analyze it.
- Sensor technology



The Internet of People and Things



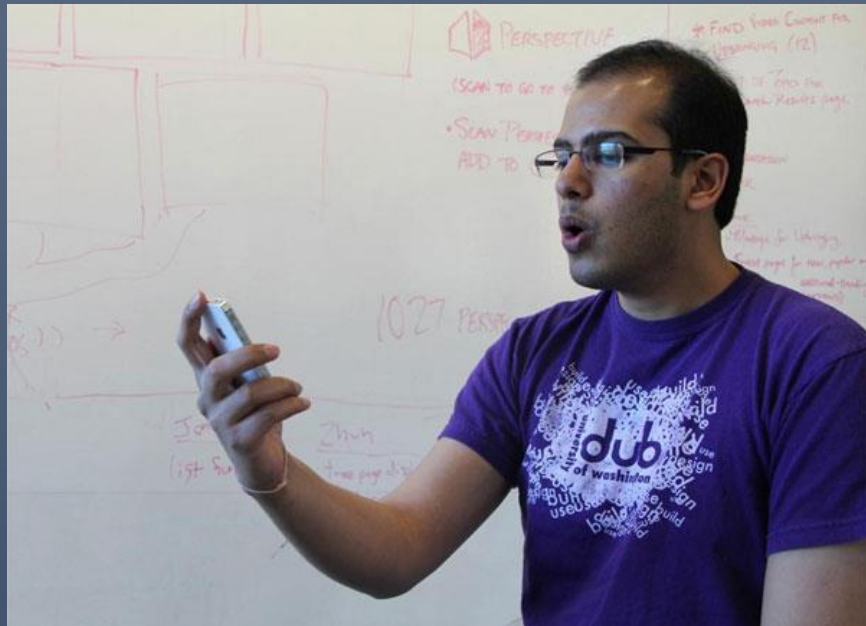
Consumer Telehealth



Smart Phones as Medical Devices



The Smart Phone Spirometer



uChek Urine Analysis



1

Dip stick in sample for
2 seconds

2



Insert stick in the mat
Use white paper as background

3

Enclose mat in Cuboid
Place **phone** in place so that
camera and flash peep through



phone

cuboid



mat

stick

uChek™ app



5

View results
Email | Save | Trend

4

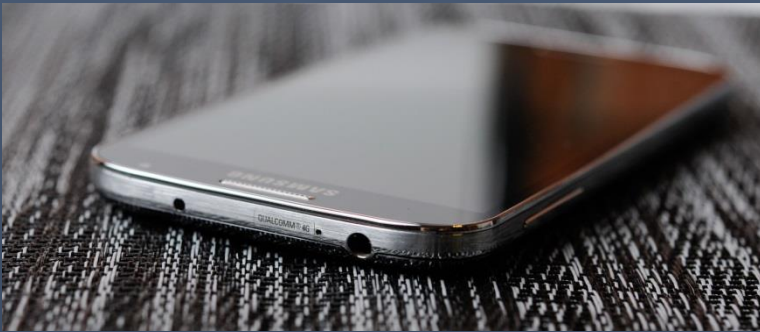
Centre the ColorMat in camera overlay screen.
Click **“Begin”** and allow the app to process results.

Zeo Sleep Monitor

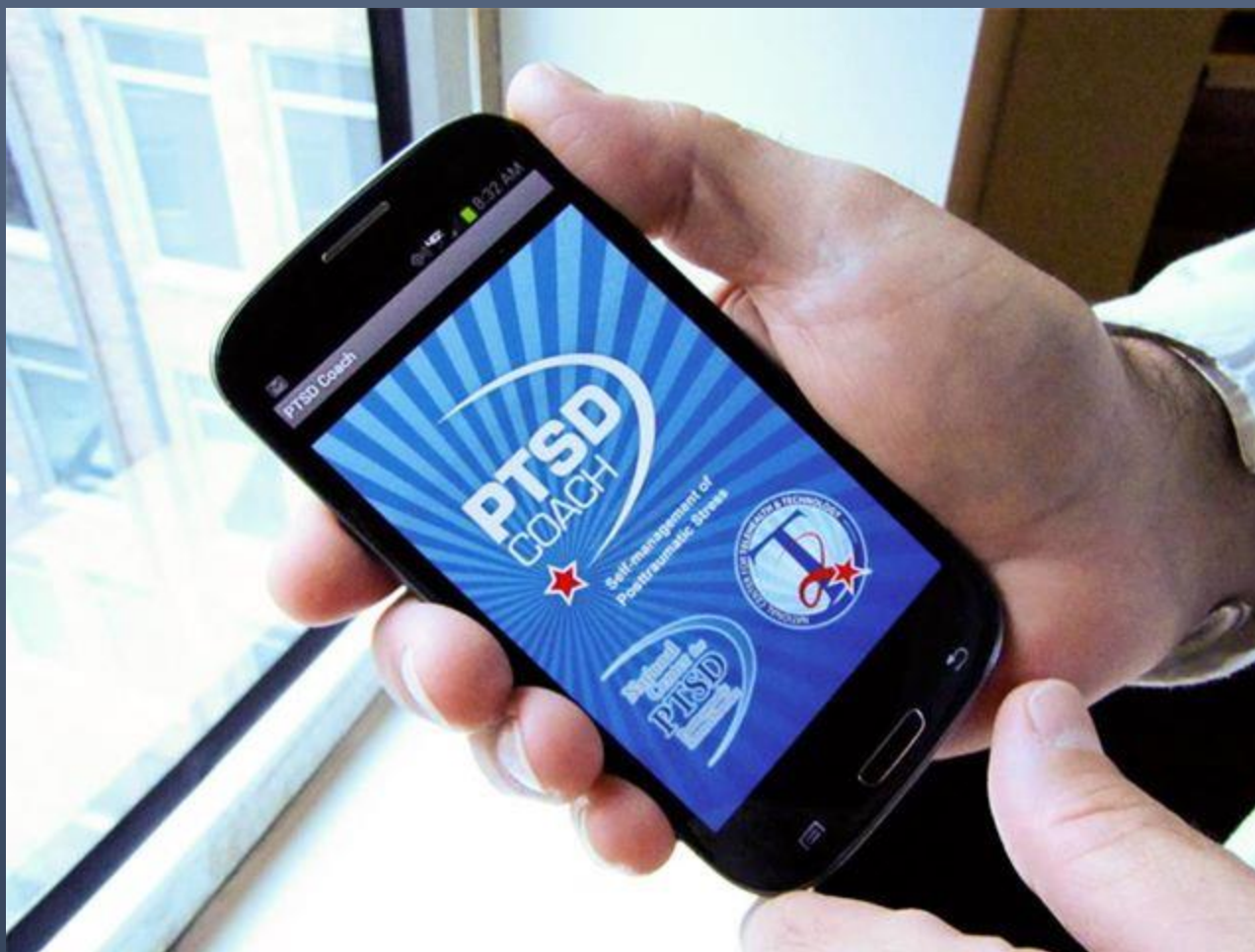


Motion Detection

- xBox Kinect
- Wi-Fi echolocation
- Cellphone microphone



Texting Support for PTSD



Electronic Health Records



ARMSTRONG

File Drawers View Mail Reports Tools Help

Appointments

Armstrong, Max - 8/2/2011

Time	Name	Appointment Type
09:00 AM	Noble, James	Consult
09:15 AM	Harris, Richard	Follow-up
09:30 AM	Casper, Carolyn	Exam - New Patient
09:45 AM	Brown, Kevin	Exam - Est. Patient
10:00 AM	Skinner, Michael	Consult
10:30 AM	Cutting, Aaron	Exam - Est. Patient
10:30 AM	Meril, Leslie	Exam - Est. Patient
10:30 AM	Wang, Richard	Consult
10:45 AM	Copeland, Elizabeth	Consult
11:00 AM	Derek, Martin	Exam - New Patient
01:00 PM	Palhow, May	Consult
01:00 PM	Simon, Carly	Exam - Est. Patient
01:15 PM	Gold, Allan	Exam - Est. Patient
01:30 PM	Dipiero, Drew	Consult
01:30 PM	Glass, Tyler	Exam - Est. Patient
02:15 PM	Thompson, Brian	Exam - Est. Patient
02:30 PM	Carter, James	Consult
02:45 PM	Morris, Philip	Exam - New Patient
03:00 PM	May, Jake	Consult
03:45 PM	Copeland, Elizabeth	Exam - Est. Patient
04:00 PM	Brown, Kevin	Exam - Est. Patient
04:15 PM	Newsome, Gina	Exam - Est. Patient
04:30 PM	Newsome, Jenna	Exam - Est. Patient
04:45 PM	Gartner, Frank	Exam - Est. Patient
05:00 PM	Cowan, Robert	Consult

Mail Status: Normal 23, Rx 8

Clinical Summary

Noble, James

Demographics

Address: 4516 West Huron Street, Chicago, IL 60607
 Referring Physician: Michael, Kelly, 500 Davis Street, Evanston, IL 60201
 Pharmacy Directions: CVSpharmacy #8671, 510 College Mall Rd, Bloomington, IN 47401, P (812) 336-7306, F (812) 335-9347

DOB: 04.05.1962
 Age: 49
 Hospital ID: 88501

Dictations

Appt Time	Completed
08.02.2011 09:00 AM	

Referring Physicians

WC Info

Description of Injury: Shoulder pain
 Employer Name: WBI
 Employer Fax: 201-867-5309
 Insurance Carrier: GEICO
 Adjuster Fax Number: 201-555-8735
 Diagnosis: 727.3
 Position: Truck Driver
 Subscriber Impairment Rating Required
 Non-Subscriber Impairment Rating Not Required

Surgeries

Description	Date
Arthroscopy	01.05.2010

Tests

Description	Date
XRay	02.04.2011

DASH

Date	DASH Score
08.02.2011	75

Meaningful Use Panel

Problems

Problem	ICD-9	Dx Day	Notes	Pt. Edu.
Lower Back Pain	724.2	08.02.2011		

Smoking Status

Status	Date
Never smoker	08.02.2011

Vitals

Date	Weight	BP	Position	Pulse	Temp	Height	BMI	O2 Sat
08.02.2011	189 lbs	120/80	Sitting	99	99	5/11	26.4	%

Injections

Injection	Date	Dose	Side	Location
Lidocaine 1 %	02.07.2011	10 mg		Shoulder Trigger

Rx History

Status	Date	Drug	Strength	Instructions
Active	01.06.2011	Keflex	250 MG	1 tab po BID
Active	11.04.2010	CeleBREX	100 MG	1 tablet by mouth in the AM
Discontinued	04.13.2006	OxyCODONE HCl	20 MG	1 tab po q4h prn pain

Allergies

Description	Reaction	Notes
Latex	Severe rash	
Shellfish	Hives	

Noble, James | All | Messages | Flow Sheet | Rx | Desktop | Message Ctr | Scan Place | Forms

Chart Notes	Radiology Reports	History	Digital X-Rays	Correspondence Received	Consult Letters Sent	Orders	Injections
Op-Reports	SRS PACS	Discharge Summaries	PT Assessments	PT Notes to MD	Registration	Surgery Documents	Surgery

Changes in healthcare are impacting telehealth.



Telehealth is about healthcare delivery.



Delivery Model



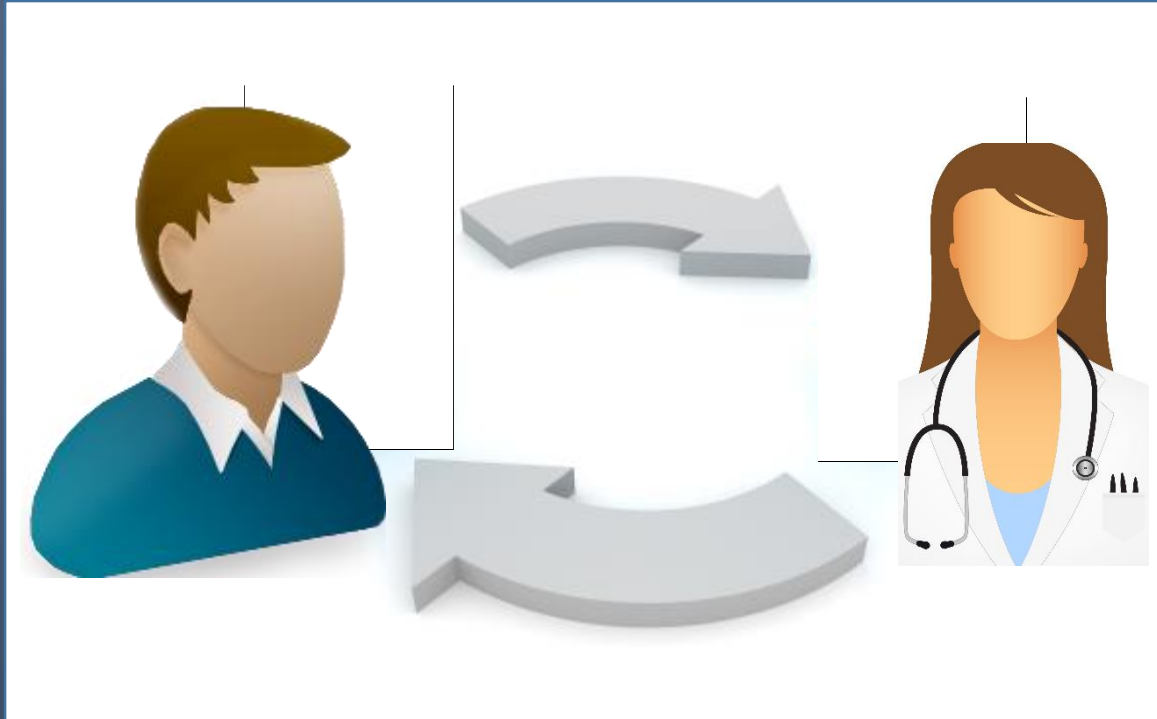
Delivery Model

A career in telehealth is a career
in healthcare delivery.





A Guiding Principle



A core function of healthcare is the exchange of information.

Future 1: Specialty Care Delivery

- “elaborate” videoconferencing based telehealth
- the purview of health care organizations/ACOs.



Future 2: mHealth



mHealth

healthcare mobile apps, devices & solutions



Future 3: In Place Care



Future 4: Care in the “Workplace”



Future 5: Consumer Wellness



The future of telehealth -

The choices are yours.

Thank you.



Telehealth
Resource Centers



The National Telehealth Resource Center Webinar Series

3rd Thursday of every month

Next Webinar:

Telehealth Topic: Technology: It Doesn't Always Work

Presenter: California Telehealth Resource Center

Date: Thursday, February 21, 2013

Times: 9:00AM HST, 10:00AM AKST, 11:00AM PST, 12:00PM MST, 1:00PM CST, 2:00PM EST



Telehealth
Resource Centers



Your opinion of this webinar is valuable to us.

Please participate in this brief perception survey:

<http://www.surveymonkey.com/s/NationalTRCWebinarSeries>

TRC activity is supported by grants from the Office for the Advancement of Telehealth, Office of Health Information Technology, Health Resources and Services Administration, DHHS