

# Addressing Racial and Ethnic Disparities through Healthcare IT: One Size doesn't Fit All

Joseph R. Betancourt, M.D., M.P.H.

Alexander R. Green, M.D., M.P.H.

Sarah Russell, M.D.

The Disparities Solutions Center

Institute for Health Policy

Massachusetts General Hospital

Harvard Medical School

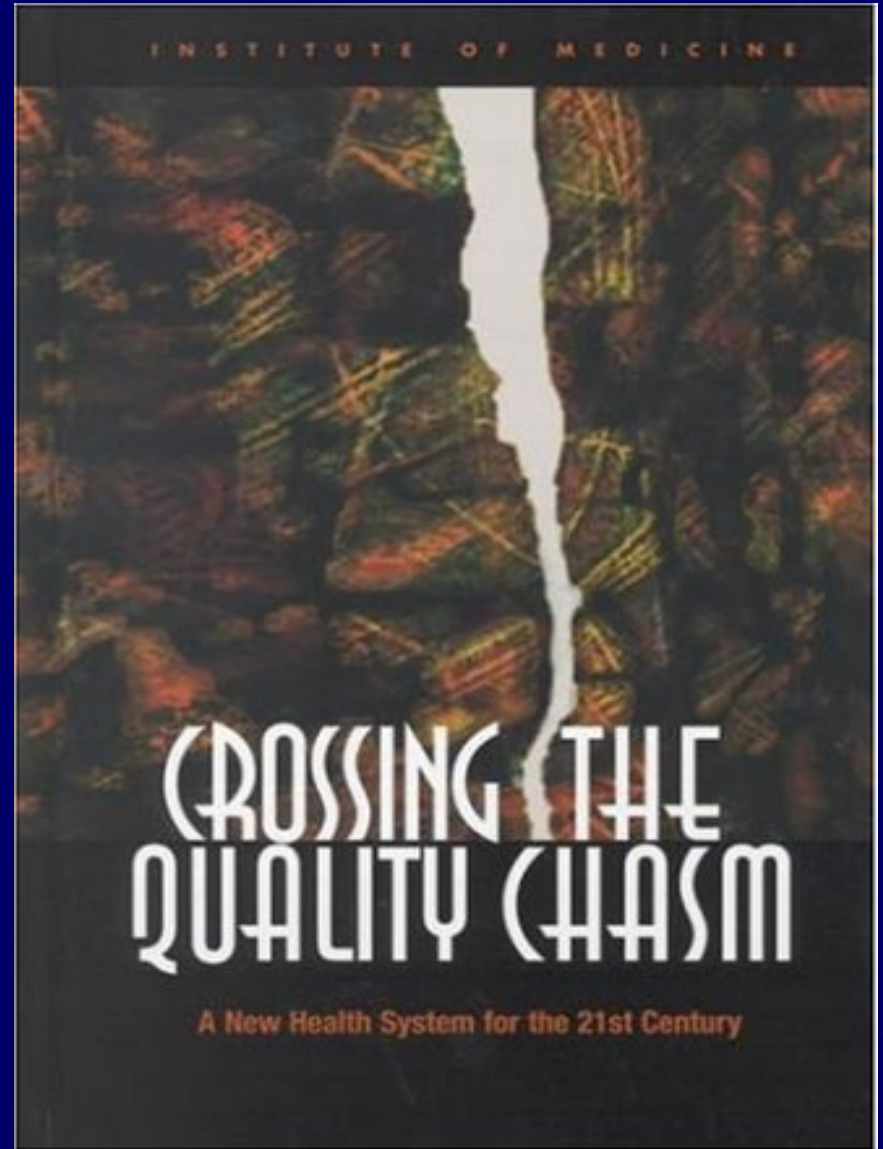


# Outline

- ◆ Quality and Disparities in Health & Health Care
- ◆ Addressing Root Causes and Potential Approaches
- ◆ A View from the Field

# Quality Health Care

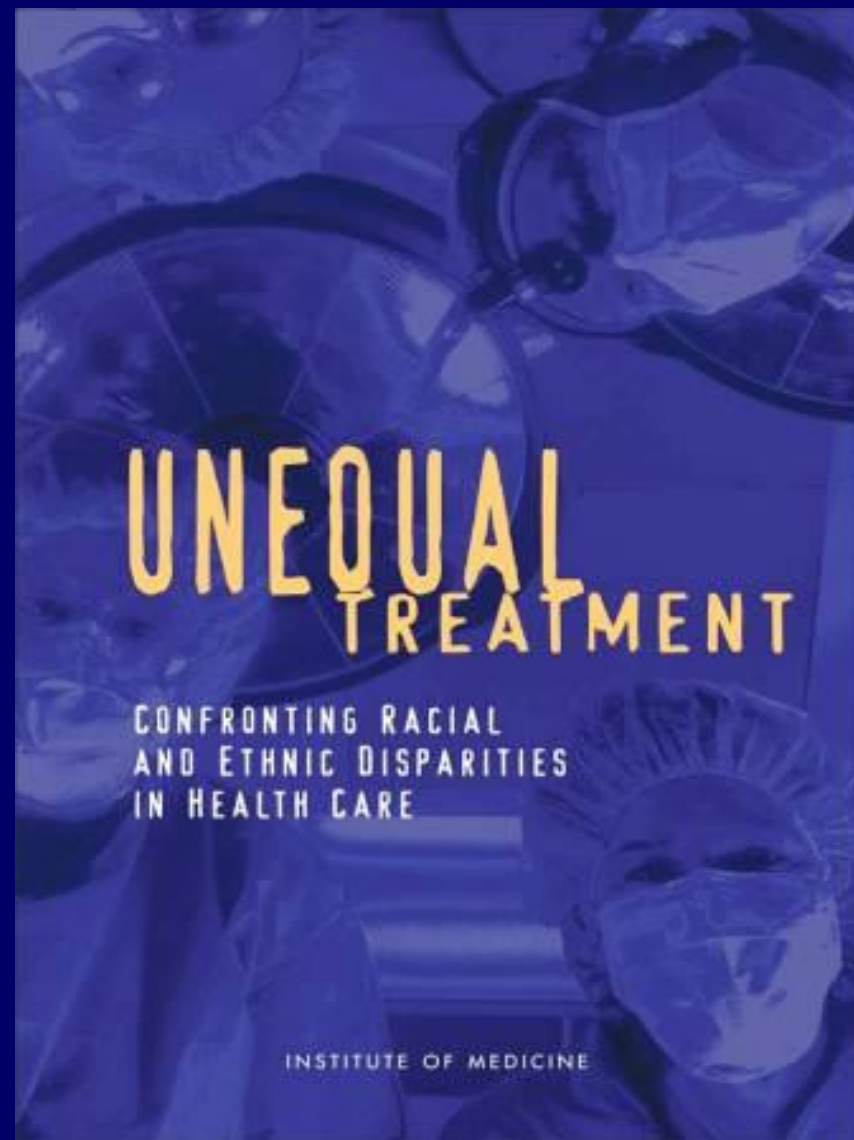
- ◆ Health care should be
  - Safe
  - Effective
  - Patient-centered
  - Timely
  - Efficient
  - Equitable



## Disparities in Health Care 2002

Racial/Ethnic disparities found across a wide range of health care settings, disease areas, and clinical services, even when various confounders (SES, insurance) controlled for.

*Many sources contribute to disparities—no one suspect, no one solution*



# Why racial/ethnic disparities in health care?

## ◆ Patient Factors

- Limited-English proficiency and low health literacy
- Lack of trust in the medical system
- Different beliefs or preferences for treatment
- Misunderstanding provider instructions
- Difficulty navigating the system

## ◆ Healthcare System Factors

- Limited race/ethnicity data collection
- Quality improvement initiatives not focused on needs of minorities
- Lack of culturally and linguistic appropriate services
- Minorities receive care from lower-resource hospitals

## ◆ Provider Factors

- Poor training in cross-cultural care and communication
- Stereotyping
- High level of subjectivity and little clinical decision support

# *IOM's Unequal Treatment*

*www.nap.edu*

## Recommendations

- ◆ Increase awareness of existence of disparities
- ◆ ***Address systems of care***
  - ***Support race/ethnicity data collection, quality improvement, evidence-based guidelines***, multidisciplinary teams, community outreach
  - Improve workforce diversity
  - Facilitate interpretation services
- ◆ Provider education
  - Health Disparities, Cultural Competence, Clinical Decisionmaking
- ◆ ***Patient education (navigation, activation)***
- ◆ Research
  - Barriers to eliminating disparities, promising strategies

# Accreditation, Quality Measures, Employer Leverage

## ◆ NCQA

- New efforts in disparities
- Measures released in 2009

## ◆ Joint Commission

- New project on culture, health and disparities
- New disparities/cultural competence accreditation standards 2007, completed public comment, plan for release in 2010-11

## ◆ National Quality Forum

- Developed cultural competence quality measures in 2009

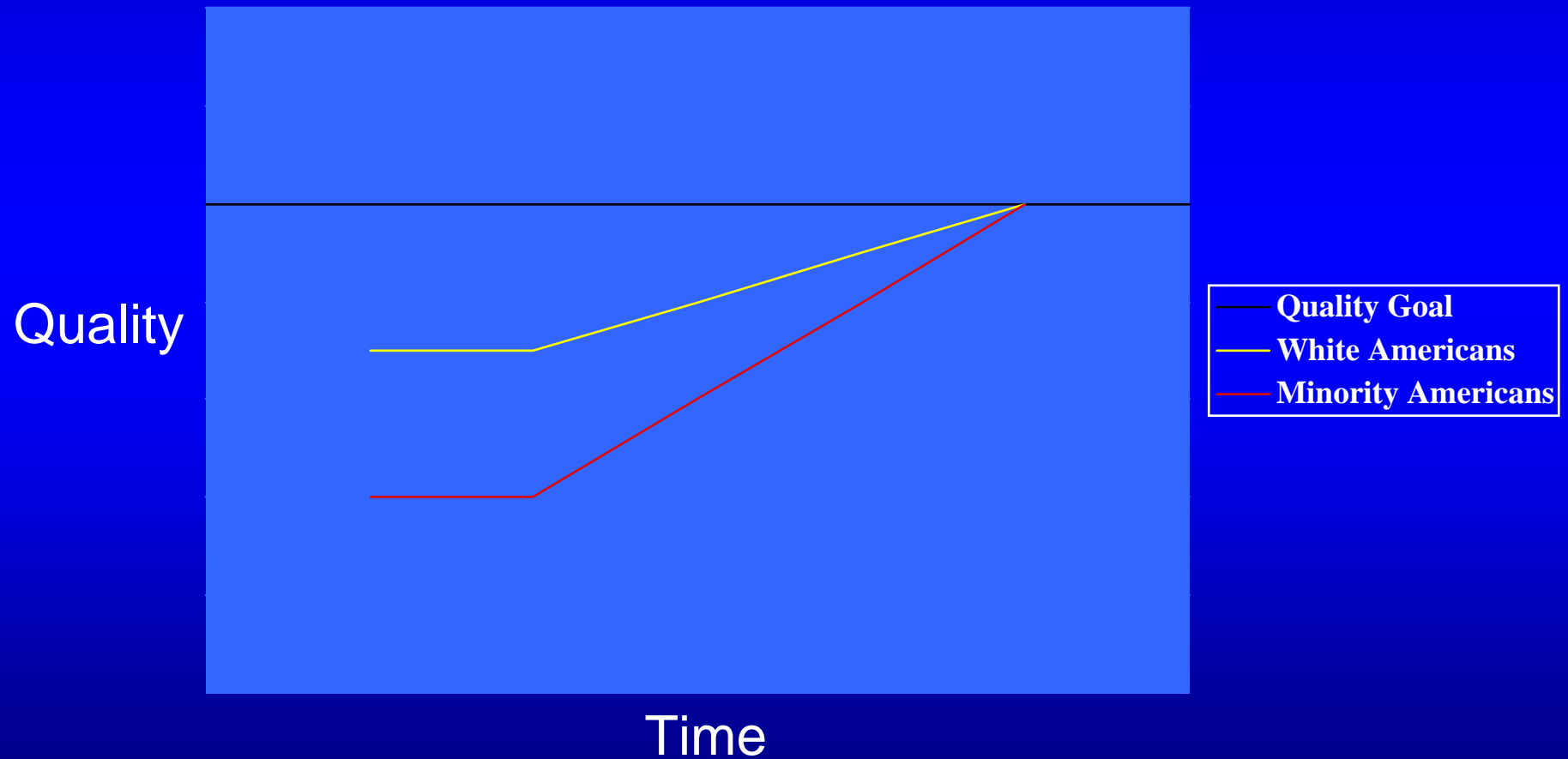
## ◆ National Business Group on Health

- Developed major effort to educate employers about disparities, including making the business case; brief released in 2009

# Health Information Technology and Disparities in Health Care: Three Areas of Focus

- Personal Health Records (PHRs)
  - Engage patients in the processes of their own care
- Electronic Medical Records (EMRs)
  - Provide resources and tools for the health care team to improve patient care
- Disease Management Approaches
  - Linked to EMR - population management

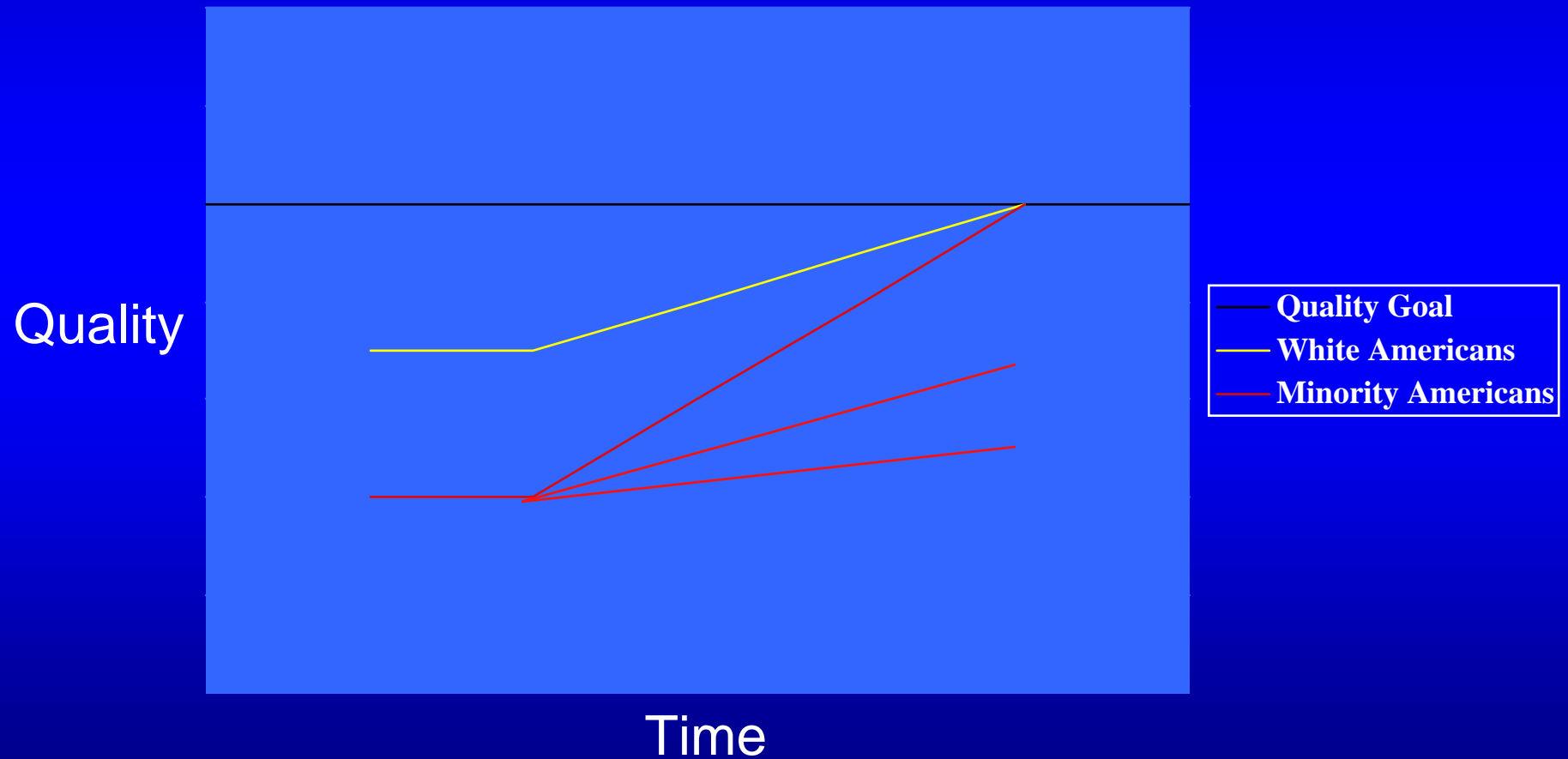
# HIT and potential effects on disparities in health care



# Adoption of HIT in Poor and Minority Serving Health Care Organizations

- 8-12% of US Hospitals and 13% of ambulatory physicians have at least a basic EMR (Jha 2009, DesRoches 2008)
- Providers who care for uninsured and Medicaid Black and Hispanic patients less likely to use EMR (Hing 2009)
- Federally qualified health centers that serve high proportions of minorities and lower SES patients have 47% lower odds of EMR adoption (Shields 2007)

# HIT and potential effects on disparities in health care



# HIT Solutions to Root Causes of Disparities Patient Factors

- LEP and low health literacy
  - EMR flags for interpreter need and automated requests
  - Easy click mechanism for sending low literacy videos for education and informed decision-making (MGH)
- Different beliefs or preferences for treatment
  - EMR and/or PHR template with section for this (e.g. Jehovah's Witness - no blood products, Muslim - fasts during Ramadan)
- Lack of trust in the medical system (PHR?)
- Misunderstanding provider instructions (e-tools?)
- Difficulty navigating the health care system (Navigators?)

# HIT Solutions to Root Causes of Disparities Healthcare System Factors

- Limited race/ethnicity, language data collection
  - EMRs will help, but need to make sure being asked well
  - EMR registry tools will help to track data - (e.g. Harvard Vanguard tracks data on diabetics using EMR system and runs analyses broken-down by R/E to identify disparities - ref. Sequist)
- QI interventions not focused on needs of minorities
- Lack of culturally and linguistically appropriate services
- Minorities receive care from lower resourced HCOs

# EMR Registry Tool

[All my patients](#)
[Metabolic syndrome patients](#)
  
click header to sort

Name	Age	# of Criteria ▼	BMI	BP	Glu	Tri	HDL	Intervention	Date
<input type="checkbox"/> Diego Santos	45	5	39.1	142/98	132	210	38	<a href="#">unassigned</a>	-
<input type="checkbox"/> Antonio Garcia	44	5	38.6	143/92	126	240	42	lifestyle program	12/5/08
<input type="checkbox"/> Alejandro Cruz	62	4	39.3	118/78	144	236	29	lifestyle program	12/8/08
<input type="checkbox"/> Jose Sanchez	29	4	35.4	135/85	98	222	31	<a href="#">unassigned</a>	-
<input type="checkbox"/> Sofia Ramos				110/70	120	96	46	letter/information	12/8/08
<input type="checkbox"/> Isabella Lopez				110/70	110	160	36	letter/information	1/9/09

[Remove](#)

[Previous](#) Page 1 of 2 [Next](#)

**Jose Sanchez** 29yo (123456)

*Past 1 year*

**BMI** 36.1 35.4 [41.2|33.5]

**Glu** 78 98 [110|78]

**Tri** 188 222 [228|180]

**HDL** 29 31 [45|28]

**BP** *controlled:* *uncontrolled:* 135/85

**Interventions**

Please select one:

None

Mailings: Letter and information

Lifestyle intervention: Acción

**6** # of remaining lifestyle program slots

**Step 1:** PCP reviews patients pre-identified with metabolic syndrome, and removes those that do not belong to her by checking on the boxes on the left and clicking on the "remove" button

**Step 2:** PCP clicks on the "unassigned" link, which opens a window summarizing the 5 criteria used to identify patients with metabolic syndrome

**Step 3:** prior to choosing an intervention, the PCP:

1. reviews the criteria and their past year trends
2. considers patient motivation and adherence
3. takes into account resource availability

# HIT Solutions to Root Causes of Disparities Provider Factors

- Stereotyping
- High level of subjectivity in clinical decision-making (e.g. use of procedures such as cardiac catheterization)
  - EMRs can help by providing real-time clinical decision support following evidence-based guidelines
- Poor training in cross-cultural care and communication
  - One third to half of senior residents reported receiving little or no instruction in cross-cultural care beyond med school (Weissman)
  - Web-based cultural competency training and resource center -- 800 physicians trained at MGH, 26,000 nationally

## Patient Cases

You have seen all of your patients. Click on a picture to try the case again.

**Felicita Bonilla**



Age: 55

55 year-old Hispanic woman with hypertension and hypercholesterolemia

**Louise Simms**



Age: 58

58 year-old African-American woman with non-insulin dependent diabetes

**Wen-Ho Chin**



Age: 68

68 year-old Chinese man with abdominal pain and weight loss now admitted to the hospital

# Cross-Cultural Decision Support

QUALITY INTERACTIONS



[Forgot?](#)
[log in](#)

[Cross-Cultural Issues](#) | 
 [Language Access](#) | 
 [Definitions](#) | 
 [Additional Resources](#)
SEARCH

## ▶ Model for cultural competency and diversity

SEARCH ETHNIC ORIGINS MAP

## ▶ Framework for cultural competence in clinical care

**Assess Cross-Cultural Issues**

Specific customs, spirituality, and diet  
Styles of Communication  
Decision-making  
Mistrust  
Sexual and Gender issues

**Address Language and Literacy**

Specific customs, spirituality, and diet  
General Literacy  
Use of Interpreters

**Engage in Negotiation**

Negotiating beliefs  
Negotiating management options

**Explore Illness/Treatment Beliefs**

Specific illness/treatment beliefs  
Complementary/alternative practices  
Personal meaning

**Determine Social Context**

Social stressors and supports  
Socioeconomic factors  
Immigration/previous care experience

## Difficult Patient Situation? Click to find out the cross-cultural issue.

- ▶ Is your patient refusing a test or procedure?
- ▶ Is your patient non-adherent to medications?
- ▶ Does your patient miss appointments or often come late?
- ▶ Does your patient present multiple unusual or unexplained symptoms?

NOTE: While these suggestions can be helpful with any patient, they may be particularly so for patients from less familiar cultural backgrounds.

## ▶ Additional Resources

Related websites  
E-newsletters  
Articles and Publications  
Annotated Bibliography

## ▶ Language Access

Interpreter Services  
Mistrust

## Recent News

[Attention New Jersey Nurses and Physicians](#)  
 July 05, 2008

[When Cultures Collide with Medical Practices](#)  
 June 27, 2008

ADDITIONAL RESOURCES

## Aa Definitions

- ▶ Cultural Competence
- ▶ Cross-cultural negotiation
- ▶ Ethnicity
- ▶ Explanatory model
- ▶ Race
- ▶ Stereotype

[About Us](#) | [Contact Us](#) | © 2009 MCOG Cross Cultural Group. All Rights Reserved.

Brought to you by:

Manhattan Cross Cultural Group

## FRAMEWORK

# Mistrust and Trust Building

### Overview

### Case Vignette

### Cross-Cultural Skills

Trust is a crucial element in the therapeutic alliance between patient and health care provider. It facilitates open communication and is directly related to patient satisfaction and adherence to provider recommendations (1). Yet research highlights that public trust in health care has dropped to an all time low from 1966 to 2002 (2). While trust in one's own personal physician has stayed somewhat higher in general, many minority patients have less inherent trust in the health care system due to historical mistreatment and fear of discrimination (4,5).

Clearly, these concerns have basis in fact. [The Tuskegee study](#) (Link 1) of untreated syphilis has left a lasting legacy of fear and mistrust of the medical establishment among the African-American community. [Numerous studies](#) (Link 2) showing striking disparities in care between African-Americans and whites have intensified and validated these concerns.

Mistrust is far from limited to African-Americans of course. Native-Americans have experienced tremendous historical injustices, and suffer significant health disparities as well. A recent survey by the Kaiser Family Foundation showed that Latinos and Asians also are much more likely than whites to worry that they will be treated unfairly by the health care system due to their race/ethnicity (6). Majority Americans also have reason to distrust the medical community.

Previous bad experiences, poor communication, disrespectful treatment, and the general loss of control that patients experience when ill can compromise trust for patients across all cultural, ethnic, racial and socioeconomic backgrounds.

[CLINICAL ISSUES](#)[COMMON SCENERIOS](#)[FRAMEWORK](#)[THE RESCUE MODEL](#)

# Accessible and Affordable Technology: Untapped Potential

50 percent of  
prescriptions go unfilled

70 percent of cell phone  
users lack data plans

*Current Market Offerings:  
Costly, remote monitoring  
requiring high bandwidth.*

90 percent of cell phone  
users respond to a text  
message within one hour

Need for Innovative Programs in Chronic  
Disease Management

If you weigh		How many fluid pills			1	2	3
					Swelling	Weight	Number of Fluid Pills
162	CHF Clinic 1-800-555-1212			Sunday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning	<input checked="" type="radio"/> Morning <input type="radio"/> Evening
161 160 159 158	<input checked="" type="radio"/> Morning 2 <input type="radio"/> Evening	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning 2 <input type="radio"/> Evening	Monday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning	<input checked="" type="radio"/> Morning <input type="radio"/> Evening
157 156 155 154 153 152 151	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	1 <input type="radio"/> Evening	1 <input type="radio"/> Evening	Tuesday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning	<input checked="" type="radio"/> Morning <input type="radio"/> Evening
150 149 148 147	<input checked="" type="radio"/> Morning 1 <input type="radio"/> Evening	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning 1 <input type="radio"/> Evening	Wednesday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning	<input checked="" type="radio"/> Morning <input type="radio"/> Evening
146	CHF Clinic 1-800-555-1212			Thursday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning	<input checked="" type="radio"/> Morning <input type="radio"/> Evening
				Friday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning	<input checked="" type="radio"/> Morning <input type="radio"/> Evening
				Saturday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	<input checked="" type="radio"/> Morning	<input checked="" type="radio"/> Morning <input type="radio"/> Evening
				Date			

DeWalt, Pignone of UNC: 2006 RCT assessing toolkit-based self-management. Results: decrease in hospitalization and death compared to usual care. Increase rate of daily weight measurement (70% vs. 29%).

If you weigh      How many fluid pills?

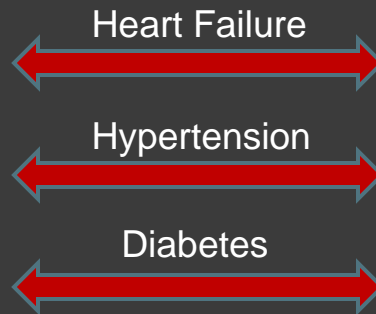
162	UNC Clinic 919-843-6480	
161		
160		
159	<u>2</u>	<u>2</u>
158		
157		
156		
155		
154	<u>1</u>	<u>1</u>
153		
152		
151		
150		
149		
148	<u>1</u>	<u>0</u>
147		
146	919-843-6480	

Good Weight

	1 Swelling	2 Weight	3 Number of Fluid Pills	
Sunday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input checked="" type="radio"/> none	Morning	Morning	<input checked="" type="radio"/> Evening
8/3 Date		156	1	1
Monday	<input type="radio"/> knee <input type="radio"/> shin <input checked="" type="radio"/> ankle <input type="radio"/> none	Morning	Morning	<input checked="" type="radio"/> Evening
8/4 Date		159	2	2
Tuesday	<input type="radio"/> knee <input type="radio"/> shin <input checked="" type="radio"/> ankle <input type="radio"/> none	Morning	Morning	<input checked="" type="radio"/> Evening
8/5 Date		158	2	2
Wednesday	<input type="radio"/> knee <input type="radio"/> shin <input checked="" type="radio"/> ankle <input type="radio"/> none	Morning	Morning	<input checked="" type="radio"/> Evening
8/6 Date		160	2	2
Thursday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	Morning	Morning	<input checked="" type="radio"/> Evening
Date				
Friday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	Morning	Morning	<input checked="" type="radio"/> Evening
Date				
Saturday	<input type="radio"/> knee <input type="radio"/> shin <input type="radio"/> ankle <input type="radio"/> none	Morning	Morning	<input checked="" type="radio"/> Evening
Date				

# An Interactive Solution: Partner with Patients Using Low-Tech Devices

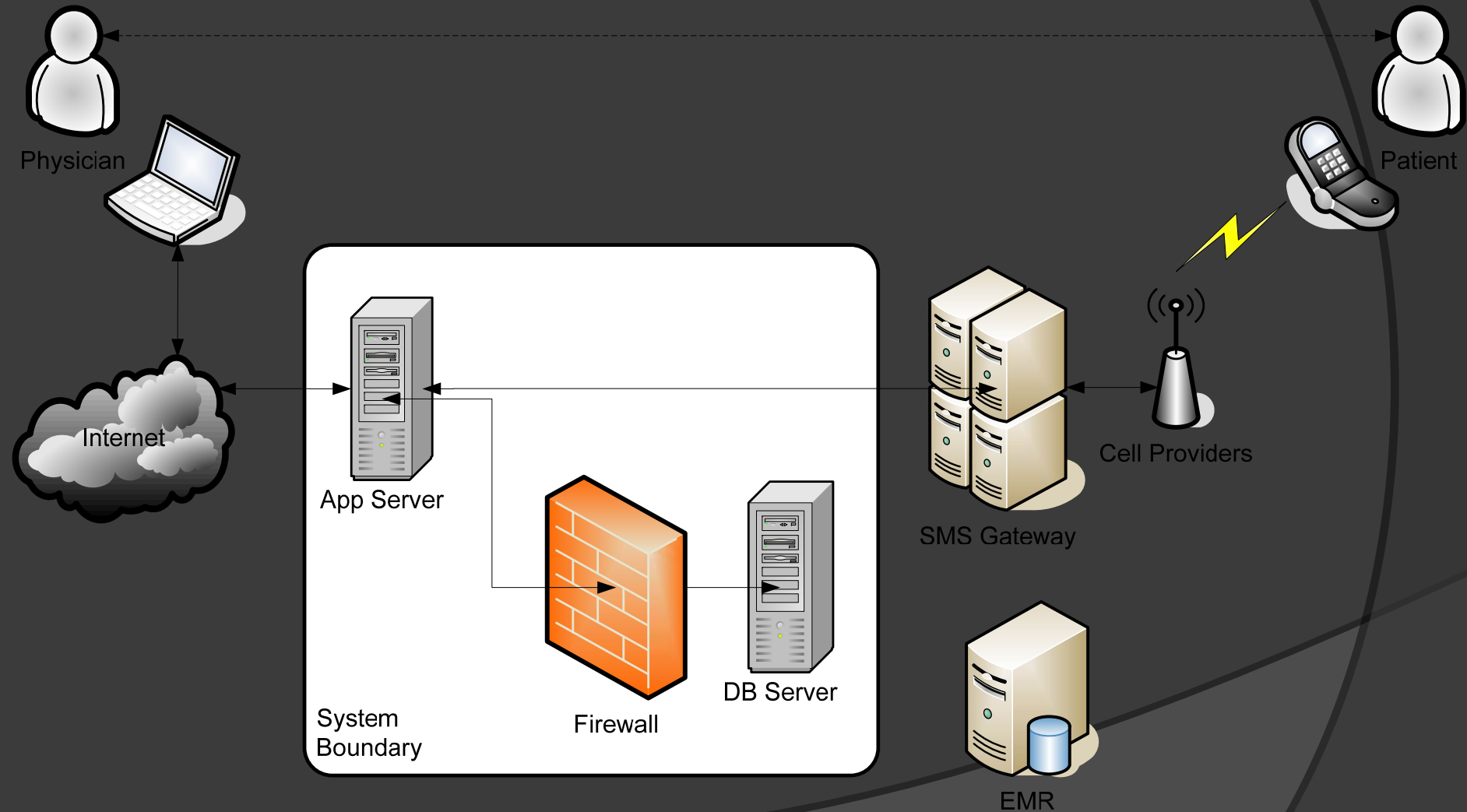
Physician  
Prescription  
Guarantees  
Safety



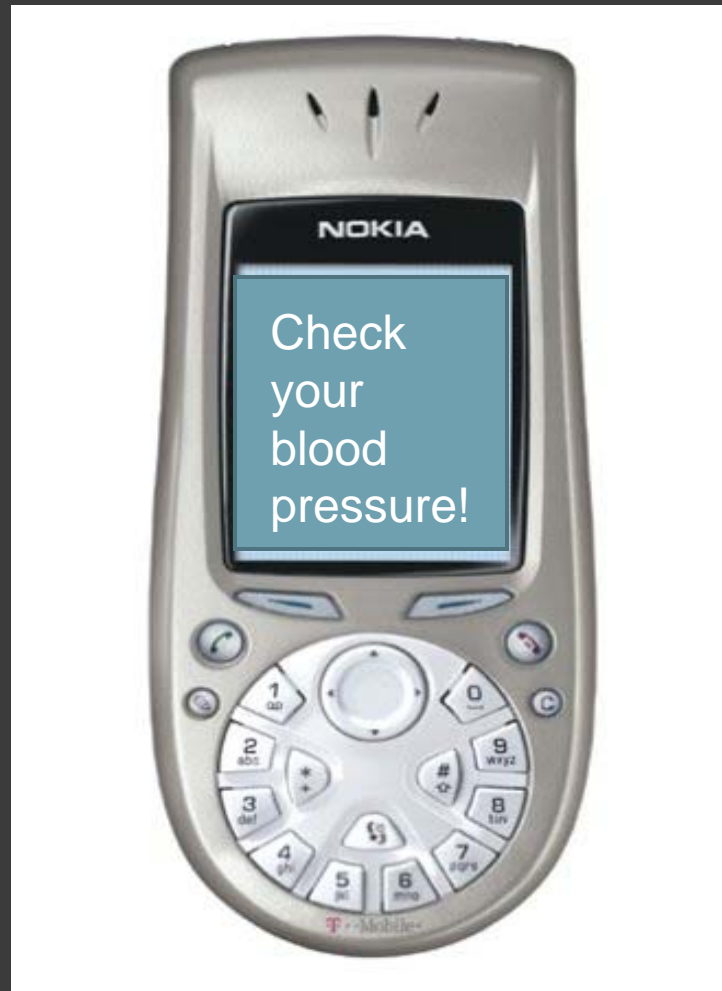
Easy  
Integration  
into  
Electronic  
Medical  
Record

- 80 million patients with chronic disease.
- 76 percent of patients 55-64 are sending text messages daily.
- Pilots across the country improve adherence and decrease hospitalization within one year for patients across all literacy levels.

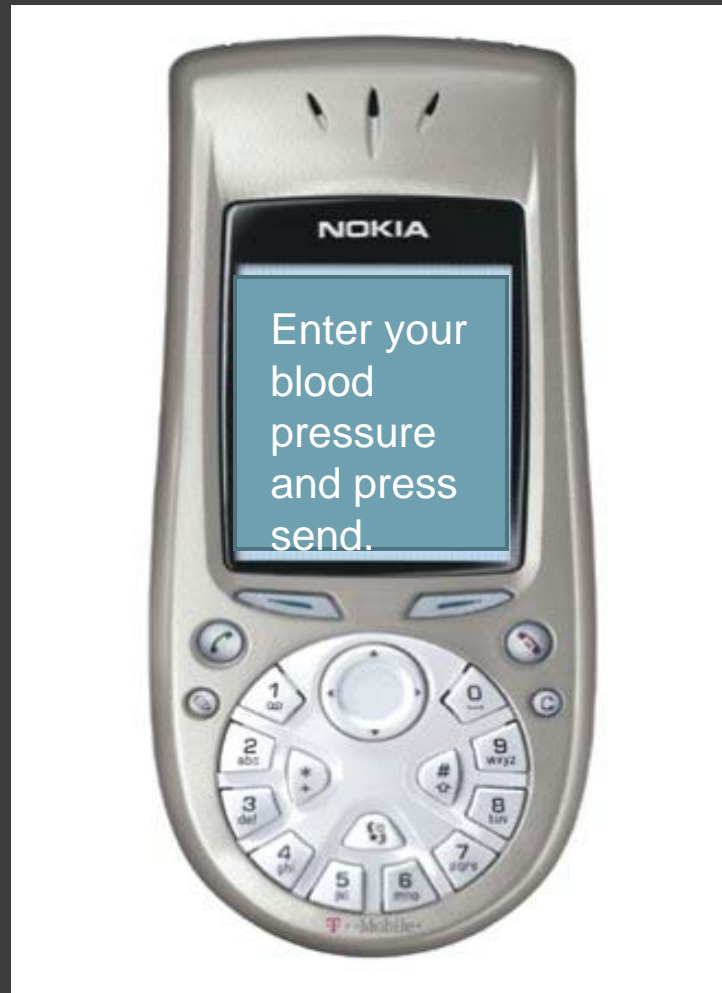
# The Model: Cell Phone-Based Toolkits for Patients



# Cell Phones, Patients, and a New Toolkit

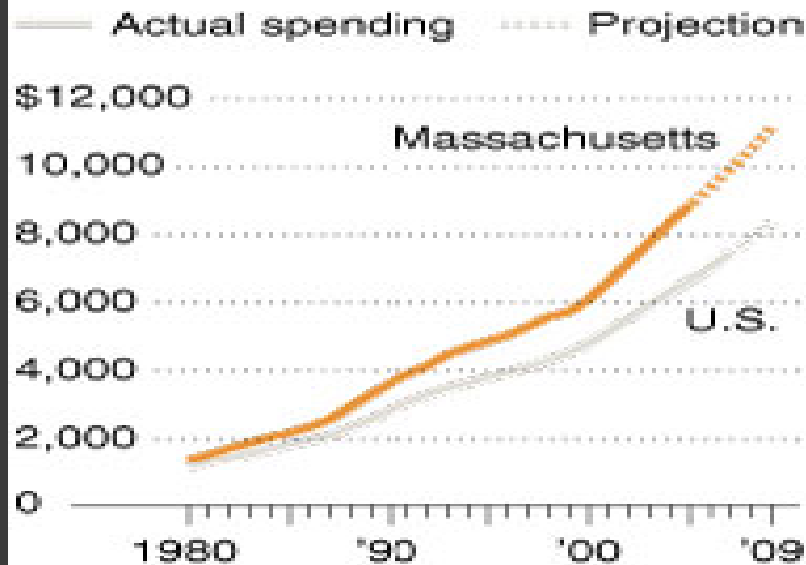


# Cell Phones, Patients, and a New Toolkit



## Sharp Climb In Health Spending

Massachusetts spends 33 percent more per person than the national average, up from 23 percent in 1980.



Sources: Alan Sager, Boston University School of Public Health, analysis of health spending data compiled by Centers for Medicare & Medicaid Services

“Carve out one problem and solve it.”

# Innovation through Iteration

A reminder of our goals:

- Decrease unnecessary patient encounters
- Improve patient self-management of chronic illness
- Patients are our critical sources of innovation
- Bring innovation to the underserved

# Summary

- Disparities, equity and quality improvement is garnering more attention
- HIT can play a major role in addressing disparities
- Innovation will improve not only care for minorities but all Americans