

Creating a 21st Century Intelligent Health System

Nancy Desmond
CEO

The Center for Health Transformation
www.healthtransformation.net
202-375-2001

The Age of Transformation: 21st Century Trends

- Customer-centered personalized systems
- Transparency of information
- Convenience
- Speed
- Constant breakthroughs that force change
- Cost crashes

The Information Age Has Been Leaving Health Behind

It is the nature of a science and technology based entrepreneurial free market to provide **more choices of higher quality at lower cost.**

The result? Needless suffering and death

- Death
 - 44,000 - 98,000 die EVERY YEAR from Medical Error
 - 88,000 die from hospital induced illness
- Suffering
 - 2 million hospital induced illnesses
 - 1.5 million nursing home induced illnesses
- Money
 - Billions linked to errors

*Figures from the Institute of Medicine (IOM)

** Figures from the Center for Disease Control (CDC)

† Figures from Agency for Healthcare Research and Quality

Today: The Gap Between a Quality Systems Approach & the Lack of a Quality System is Paid in Lives

- **One** out of every **1,000** patients admitted to a hospital dies due to medical errors*

But only

- **One** out of every **1,860,491** passengers flying on a major U.S. commercial airline dies in an airplane crash**

You are *2000 times* more likely to die in a hospital from errors than on an airplane!

*Figure from American Hospital Association **Figure accumulated from NTSB reports since 9/11 and traffic figures of the six major U.S. commercial airlines: Delta, American, U.S. Air, United, Continental, and Northwest

Health Transformation is Not a Choice but a Necessity: The Urgency

- Health and Homeland Security: Katrina
- Our Aging Population
- IOM Report: Unnecessary Deaths and Medical Errors
- Health Disparities
- Diabetes and Obesity
- Shortage of Healthcare Workers
- Uninsured
- Unsustainable Cost Increases
- Growing Public Awareness

What is Needed

- The system is broken and incremental reforms in silos will not work. It must be transformed.
- System-wide change is needed because elements of the health and healthcare system impact and interact with one another and cannot be dealt with in isolation.
- We must first define the overarching vision and shared values, followed by bringing all sectors together within this shared purpose.

Transforming vs Reforming

Reforming

Making Current Patterns Work Better

“... A written prescription for a medicinal drug issued by a health care practitioner licensed by law to prescribe such drug **must be legibly printed...**”

(Florida House and Senate Passed Section 456.42 on May 23, 2003)

Transforming

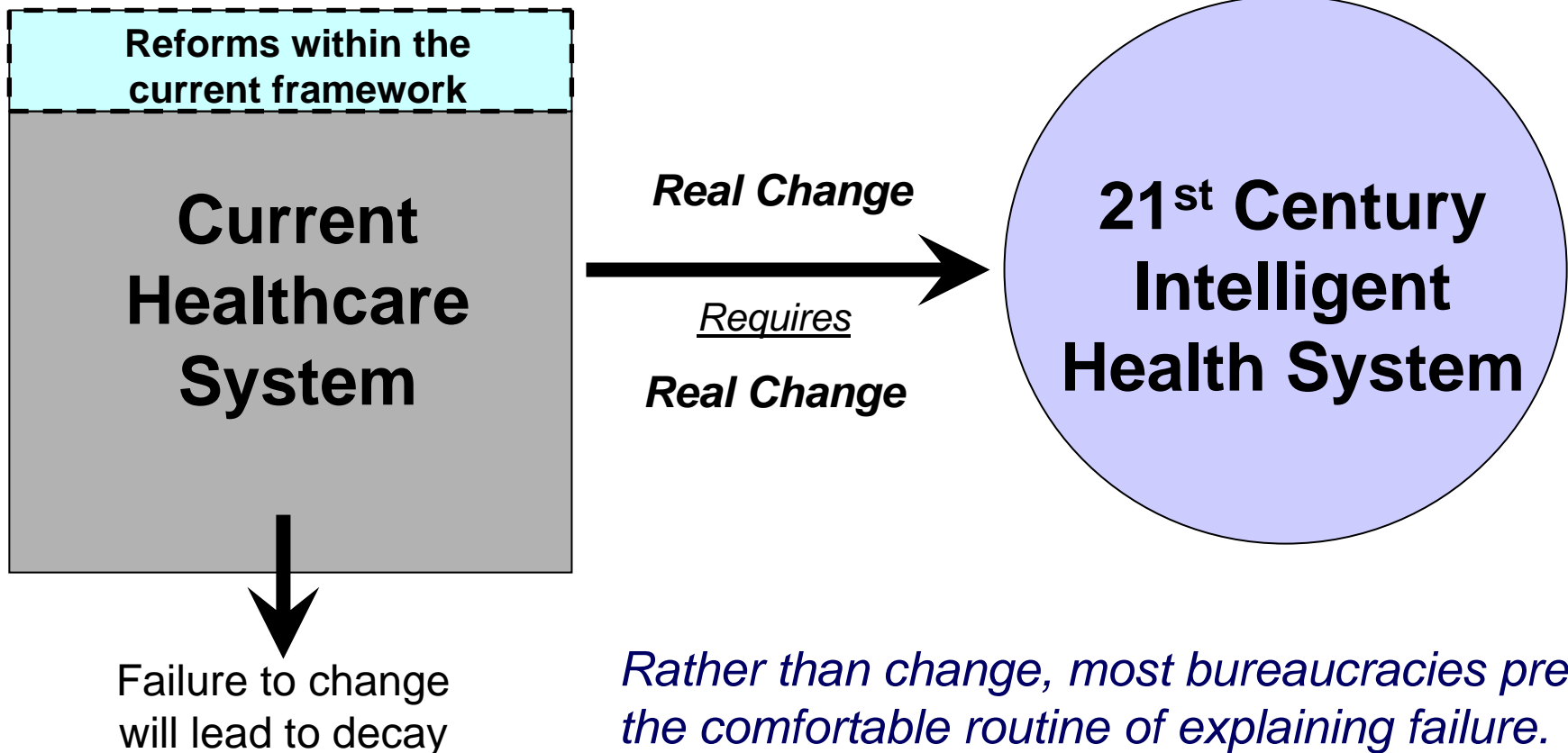
Developing a New and Different Pattern

In February 2003, The Rhode Island Quality Institute teamed up with SureScripts to launch a state-wide electronic prescribing program to achieve 100% electronic prescription writing in the State of Rhode Island

Health Transformation

*Where we are
currently going*

*Where we should
be going*



Our Vision

*A 21st Century Intelligent Health System in
which knowledge saves lives and saves money
for every American.*

Vision Principles

Current System



21st Century System

Provider-centered

Price-driven

45 million uninsured Americans

Hidden price and quality information

Knowledge-disconnected

Slow diffusion of innovation

Disease-focused

Paper-based

Third party controlled market

(patient – provider – payor)

Limited choice

Punishment driven

Predatory trial lawyer litigation system

Quantity and price measured

Process-focused & administered

Bureaucratic management

Overall cost increases

Individual-centered

Values-driven

100% coverage

Transparent price and quality information

Knowledge-intense

Rapid diffusion of innovation

Prevention and health-focused

Electronically-based

Binary mediated market

(individual – provider)

Increased choice

Incentives pulled

New system of health justice

Quality of care and quality of life

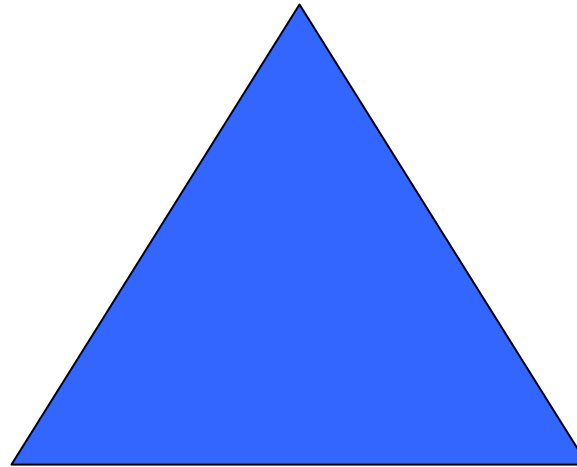
Metrics-led & outcomes focused

Collaborative leadership

Overall cost decreases

Model of a 21st Century Intelligent Health System

Individual-Centered – Incentives –
Responsibility – Information – Right to Know



Prevention - Early Detection-
Self Management – Best Practices

IT- Quality - Expert
Systems

The Opportunity

- President Bush Executive Order
- Secretary of HHS Michael Leavitt
- Governor Sonny Perdue

A Critical Mass of Leaders

President Bush: Signed an executive order to "Help Increase The Transparency Of America's Health Care System - Empowering Americans To Find Better Value And Better Care", directing federal agencies that administer or sponsor federal health insurance programs to:

- 1. Increase Transparency In Pricing.** The Executive Order directs Federal agencies to share with beneficiaries information about prices paid to health care providers for procedures.
- 2. Increase Transparency In Quality.** The Executive Order directs Federal agencies to share with beneficiaries information on the quality of services provided by doctors, hospitals, and other health care providers.
- 3. Encourage Adoption Of Health Information Technology (IT) Standards.** The Executive Order directs Federal agencies to use improved health IT systems to facilitate the rapid exchange of health information.
- 4. Provide Options That Promote Quality And Efficiency In Health Care.** The Executive Order directs Federal agencies to develop and identify approaches that facilitate high quality and efficient care.

A Critical Mass of Leaders

- Governor Sonny Perdue, signing on to the initiative: "Transparency in the health care marketplace is essential Increased transparency in Georgia's healthcare industry will help families make informed decisions based on the costs and the quality of the services they receive."

A Critical Mass of Leaders

- US Health and Human Services Secretary Mike Leavitt: "I applaud Governor Perdue for taking steps that will result in better care at lower cost for the people of Georgia. The four cornerstones of a better health care system are electronic health records, more information on the cost and quality of our care, and incentives that reward high quality at low cost...Georgia is one of the first states in the nation to lead the way to a better health care system for its citizens."

A Critical Mass of Leaders

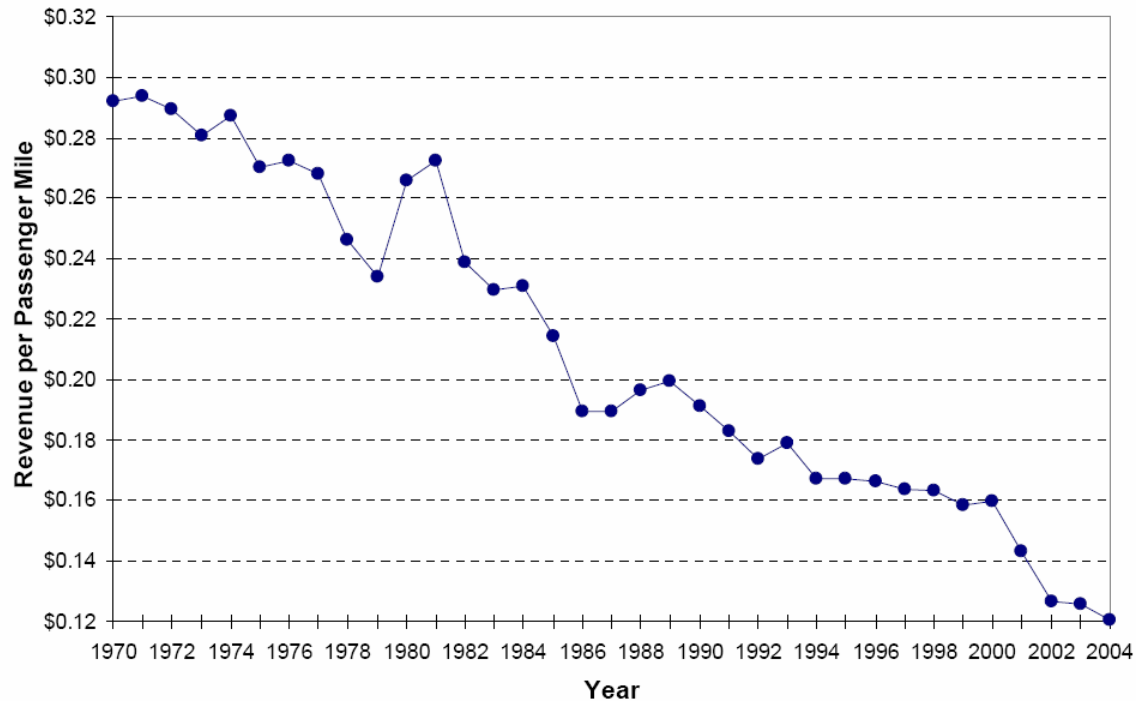
- Dr. Rhonda Medows, Commissioner of the Georgia Department of Community Health: "Communication in health care is essential for success. Our goals for Health Information Technology are simple: Understandable, universal, timely, and secure communication of health information across the public and private sectors for the benefit of today's health care consumer. Let's build bridges, not barriers."

The Potential Impact of a 21st Century Intelligent Health System

Effect of U.S. Deregulation of Airlines in 1978

Price transparency and an entrepreneurial free market provide more choices of higher quality at lower cost

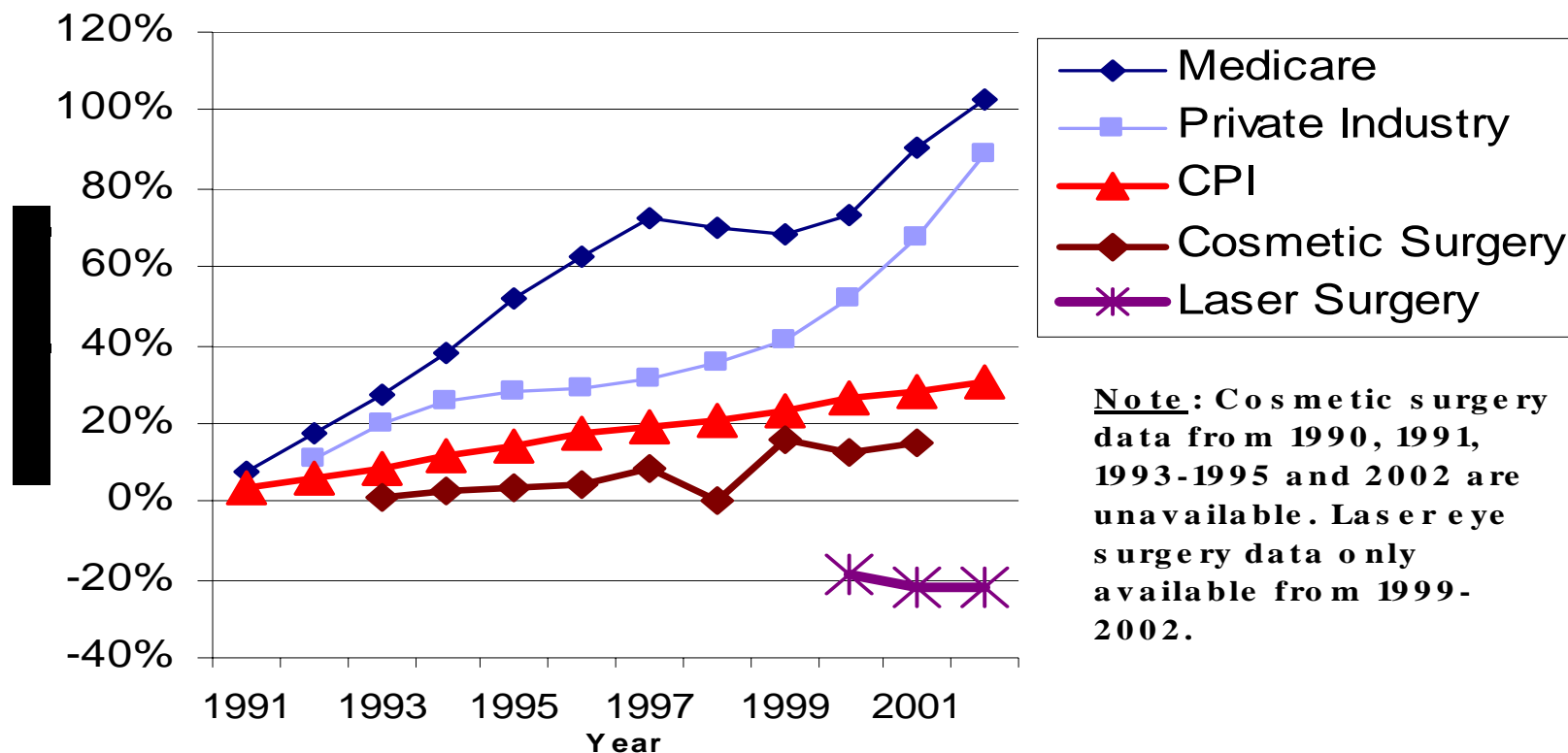
Domestic Airline Yield Adjusted for Inflation (2004 dollars)



Source: Statement of Stephen Morrison and Clifford Winston, hearing before the Subcommittee on Aviation, Committee on Transportation and Infrastructure, September 28, 2005

Stunningly Different Healthcare Trends In The 21st Century Economy

Percentage Change in Cost



Note: Cosmetic surgery data from 1990, 1991, 1993-1995 and 2002 are unavailable. Laser eye surgery data only available from 1999-2002.

Source: CMS, CPI, American Society of Plastic Surgeons, Devon Herrick at NCPA, David Harmon at Market Scope

#	Company	CCHC Plan/Tools	Budgeted Health Inflation Trend for first year of CCHC Plan	Actual Health Inflation Trend First Year After CCHC Plan Introduced	# of Participating Employees	Notes
1.	Technology Company (CA)	Lumenos	+14%	-9%	2,294	2004 Results
2.	Manufacturing Company (MN)	Lumenos	+14%	-27%	1,704	2004 Results
3.	Health Care Company (TX)	Lumenos	+18%	-12%	4,000	Avg. 2003 and 2004 Results
4.	Hospital System	Humana	+15%	-31%	7,300	2003 Results
5.	Trover Health Solutions (KY)	Humana	+19%	-26%	750	2002 Results
6.	Logan Aluminum (KY)*	Aetna	--	-18.7%	1,000	2003 Results
7.	Mercy Health Plan (MO)	HealthTrio	+16%	-9%	300	2003 Results
8.	Wise Business Forms (PA, GA, IN)	Definity	+10%	-13.3%	500	2002 Results

Better Health is Leading to Lower Costs – Consumer-driven healthcare, early success examples

Note: The above are early results and are not necessarily representative of the experience of each company utilizing consumer choice health plans. Year-to-year claim activity will vary; annual results will show more volatility if the population is small. For small employers with slightly higher or lower numbers, large claims will have a significant impact.

**Today: \$100 billion a year wasted,
tens of thousands of lives lost *unnecessarily***
Submitted by Agency for Healthcare Research and Quality (AHRQ) June 28, 2003

Solution

Result

Savings

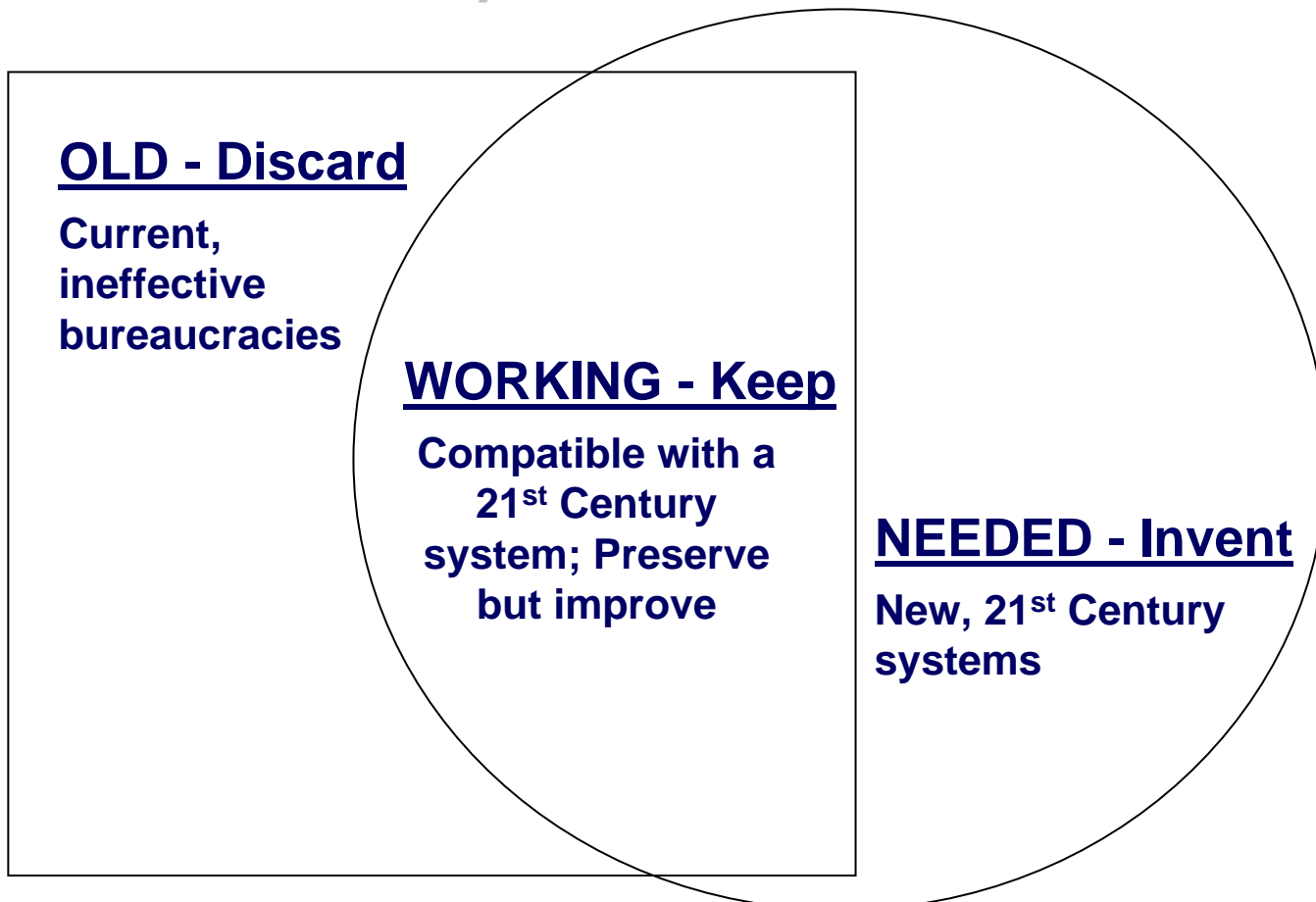
Computerized Physician Order Entry (inpatient)	↓ rate of serious med error by 55%; ↓ rate of potential adverse drug events by 84%	Total annual savings range from \$7 to 14 billion (nationally)
Clinical Decision Support Technologies	↓ ordering of drugs that pt. is allergic to; ↓ in orders for wrong (ineffective) meds;	↓ antibiotic cost by ~\$200 per hospitalization; lower cost of hospital care (\$26,315 v \$35,283) and shorter hospital stays (10 v 12.9 days)
Automated Medication Dispensing Systems (inpatient)	Significantly fewer missed doses of drugs (↓ 16.9%);	One hospital realized savings of \$1.28 million over 5 yrs.
Bar Coding Technologies	75% decrease in errors caused by administration of wrong meds; 93% reduction in errors from wrong med to wrong pt.	Annual national savings of \$15.3 billion
E-Prescribing in Physician Practices	Decreased medication errors; Improved physician efficiency	One study demonstrated ↓ pharmacy costs of \$1.15 PMPM; 30% decrease in physician to pharmacy phone calls;
Computerized Physician Order Entry (outpatient)	Eliminate 2 million adverse drug events; Avoid 1.3 million office visits and 190,000 hospitalizations	\$27 billion savings in medication expenses (nationally)
Electronic Medical Records (Primary Care Settings)	34% reduction in adverse drug events; 15% decrease in drug utilization; 9% decrease in unnecessary lab utilization	↓ Spending by \$44 billion per year: Savings of \$86,400 per provider over a five yr period.

Why Quality Standards Matter

Condition	What We Found	Potentially Preventable Complications or Deaths (annual)
Diabetes	Average blood sugar not measured for 24%	2,600 blind; 29,000 kidney failure
Hypertension*	Less than 65% received indicated care	68,000 deaths
Heart attacks*	39–55% did not receive needed medications	37,000 deaths
Pneumonia*	36% of elderly received no vaccine	10,000 deaths
Colorectal cancer*	62% not screened	9,600 deaths

*Source: Woolf SH, "The Need for Perspective in Evidence-Based Medicine," *Journal of the American Medical Association*, Vol. 282, 1999, pp. 2358–2365.

Transitioning to a 21st Century Health System Will Necessarily Mix the Old and the New



(with thanks to Senator Bob Kerrey for developing this model)

Consumers Have the Right to Know Cost and Quality Data

Florida Governor Jeb Bush and Health Secretary Alan Levine lead the country in promoting the transparency of hospital quality information and prescription drug prices.

www.MyFloridaRX.com

www.healthtransformation.net

MIAMI - CELEBREX 200 MG CAPSULE
Usual and Customary prices for Nov 1 - Nov 30, 2005

You can sort your results by Pharmacy, Zip Code, Drug Name, Quantity, or Price by clicking on the column title.

Name	Zip Code	Drug Name	Quantity	Price ▲
WAL-MART PHARMACY 10-2091 8651 N.W. 13TH TERRACE MIAMI, FL 33126 (305) 470-4530 Map It	33126	CELEBREX 200 MG CAPSULE	30	86.04
CAROLINA PHARMACY 4633 NW 199 STREET MIAMI, FL 33055 (305) 625-6255 Map It	33055	CELEBREX 200 MG CAPSULE	30	220.50

www.FloridaCompareCare.com

Surgery/Procedure: Nervous System Injections, Stimulations or Cranial Tap
Time Period: January 2004 through December 2004

Facility / City	Total Visits	Risk Adjusted Average Charge
Cleveland Clinic Hospital - 100056 Weston	1,232	\$917
Coral Springs Medical Center - 110019 Coral Springs	40	\$5,123

Pneumonia Mortality Rate
Time Period: January 2004 through December 2004

Cedars Medical Center - 100009 Miami	As Expected
Coral Gables Hospital - 100183 Coral Gables	Higher Than Expected
Doctors Hospital - 100020 Coral Gables	Lower Than Expected

Five Key Principles for Thinking about America in the 21st Century

1. **THE FIRST TEST IS: Do You Want Different Results** than you are currently getting?
Einstein once said “*insanity is doing more of what you are already doing and expecting a different result.*”
2. **Real Change.** Real change will require real change.
3. **Learn to say “Yes, if” rather than “no, because”** to achieve optimum development of solutions.
4. **New results require new ideas, new actions,** and sometimes, new structures and new cultures.
5. **Look for and adopt what is already working.** In most areas where we want to create solutions, there are existing fact-based models of success which can be learned from and built upon.

Reading List for Creating 21st Century Intelligent, Effective Government.

1. *The Art of Transformation*, Newt Gingrich & Nancy Desmond, CHT Press [www.healthtransformation.net] (2006).
2. *The Effective Executive*, Peter F. Drucker, HarperCollins (1967).
3. *Leadership*, Rudolph W. Giuliani, Miramax Books (2002).
4. *Turnaround*, William Bratton, Random House (1998).
5. *Moneyball*, Michael Lewis, W. W. Norton & Company (2004).
6. *Winning the Future*, Newt Gingrich, Regnery (2005).
7. *Saving Lives and Saving Money*, Newt Gingrich, (2003).

Creating a 21st Century Intelligent Health System in Georgia

Laura Linn

Project Director

The Center for Health Transformation

www.healthtransformation.net

404-201-7904

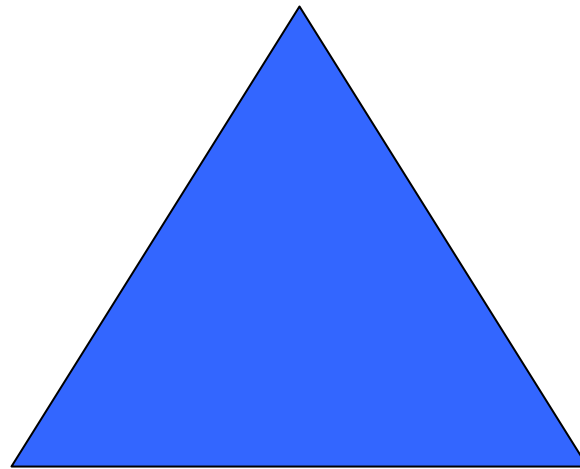
Healthy Georgia Diabetes & Obesity Project

- **Purpose**

- To improve the treatment and outcomes for people with diabetes and to promote early diagnosis and prevention of diabetes, including decreasing the prevalence of obesity.

Healthy Georgia Diabetes & Obesity Project

Individual-Centered



Prevention/Wellness
Best Practices

Quality-IT-Expert
Systems

Goals

- Reduce the incidence of diabetes and obesity as well as the complications and death rate associated with both conditions through consistent implementation of best practices.
- Reduce disparities in health in racial and ethnic populations disproportionately impacted by diabetes and obesity.
- Improve public awareness and patient understanding of diabetes and its control.
- Promote better self-management among diabetics and obese individuals.
- Accelerate the migration from paper to electronic record keeping so that access and accuracy of information will be improved.
- Improve health care providers' understanding of diabetes and its control and rapid adoption of proven best practices.
- Promote policies that increase prevention and improve the quality of and access to diabetes care.

Components

- **Public Awareness and Communications**
- **Quality of Care**
- **Minority Health Disparities**
- **Improving the Health of Georgia's Children**

Quality

- Pay for Performance Program
 - Largest in Nation – CHT launched Sept 2005
 - Bridges to Excellence model – Diabetes Recognition through NCQA
 - 27 Employers – Led by UPS, BellSouth & Southern Company; State of Georgia participating
 - Major Insurers
 - Providers – WellStar Health System; MSM Community Physician Network; recruitment also active in Columbus, Savannah, Albany and Metro Atlanta

DPRP Recognition Process

New DPRP 2006 Adult Measures

Scored Measures	Threshold (% of patients in sample)	Weight
HbA1c Control <7.0%	40%	10.0
HbA1c Control >9.0 %*	≤15%	15.0
Blood Pressure Control ≥140/90 mm Hg*	≤35%	15.0
Blood Pressure Control <130/80 mm Hg	25%	10.0
LDL Control ≥130 mg/dl*	≤37%	10.0
LDL Control <100 mg/dl	36%	10.0
Eye Examination	60%	10.0
Foot Examination	80%	5.0
Nephropathy Assessment	80%	5.0
Smoking Status & Cessation Advice or Treatment	80%	10.0

Total Points = 100.0

Points to Achieve Recognition = 75.0

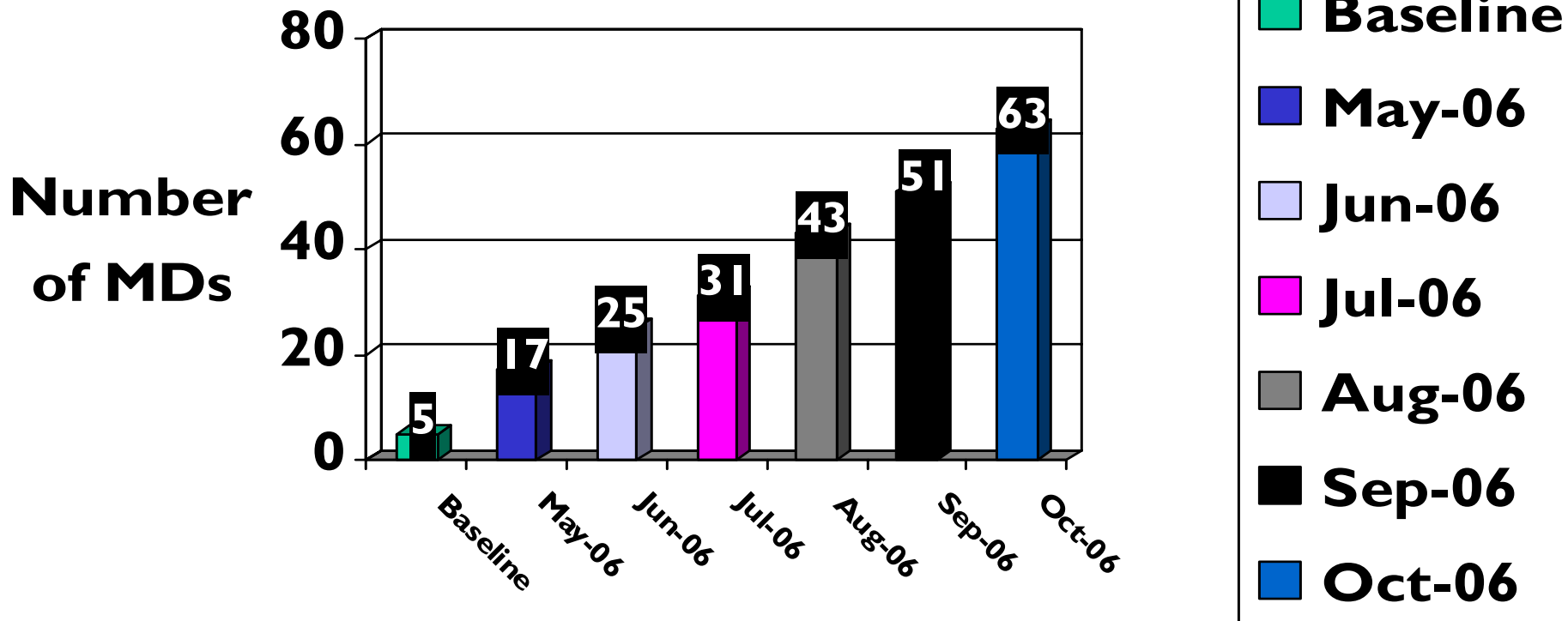
Physician Search Results

[New Search](#)

Search results: (1 - 47) of 47

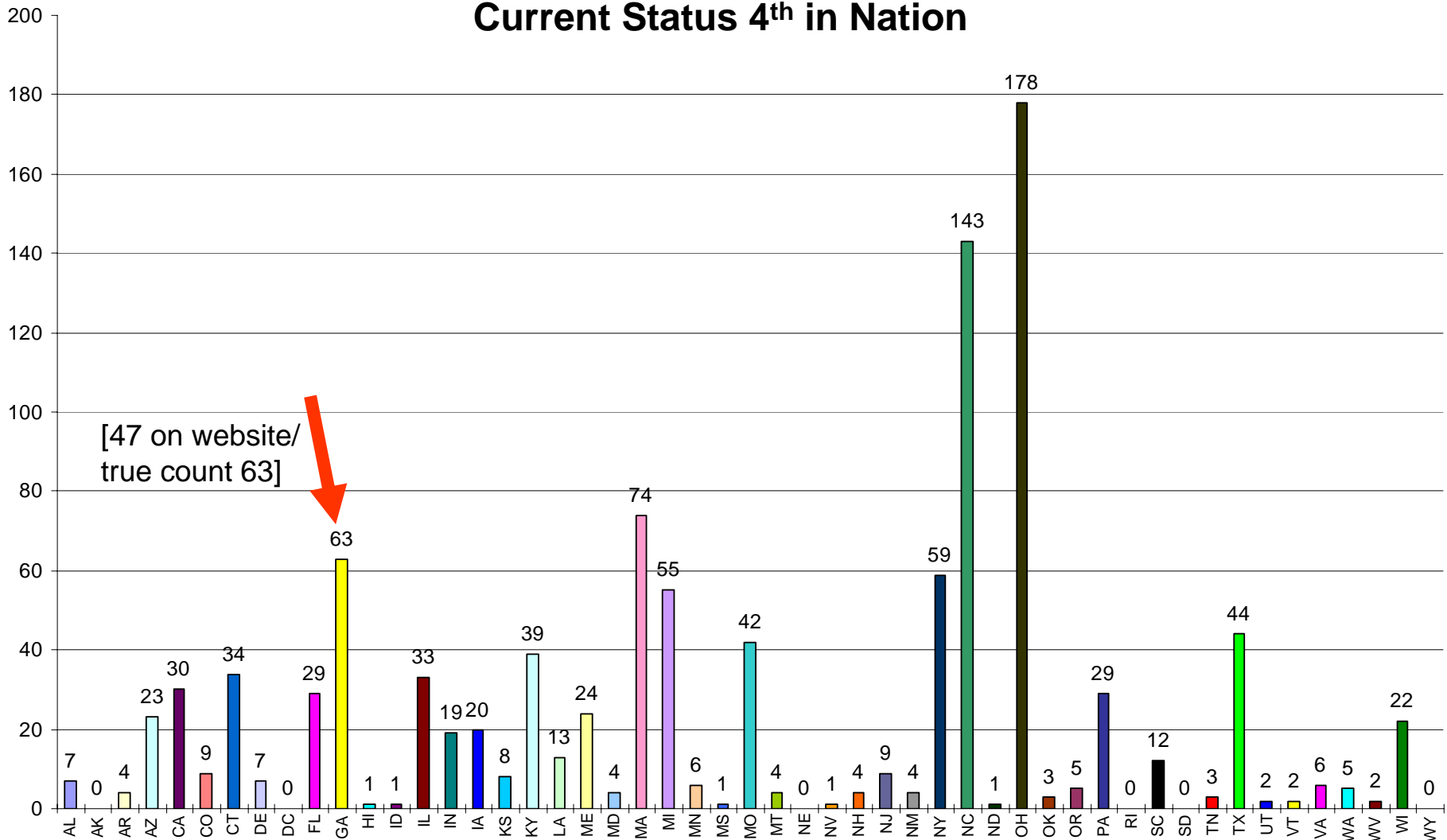
Physician	Address	Recognition Program(s)
<u>Bakshi, Pratima</u>	Wellstart Towne Lake Medical Center 145 N. Medical Parkway Woodstock, GA 30189	<p>ADA / NCQA ★★★★★ DIABETES</p>
<u>Bates, Jackson</u>	WellStar Marietta Internal Medicine 54 Tower Road Marietta, GA 30060	<p>ADA / NCQA ★★★★★ DIABETES</p>
<u>Batista, Philip</u>	Wellstar East Cobb Medical Center, LLC 1010 Johnson Ferry Road Marietta, GA 30068	<p>ADA / NCQA ★★★★★ DIABETES</p>
<u>Bayles, Bruce</u>	Wellstar Marietta Family Medicine, LLC 52 Tower Road Marietta, GA 30060	<p>ADA / NCQA ★★★★★ DIABETES</p>
<u>Breton, Tami</u>	WellStar Kennesaw Medical Center 3805 Cherokee Street Kennesaw, GA 30144	<p>ADA / NCQA ★★★★★ DIABETES</p>

DPRP Certified MDs State of GA



MDs DPRP Certified

Current Status 4th in Nation

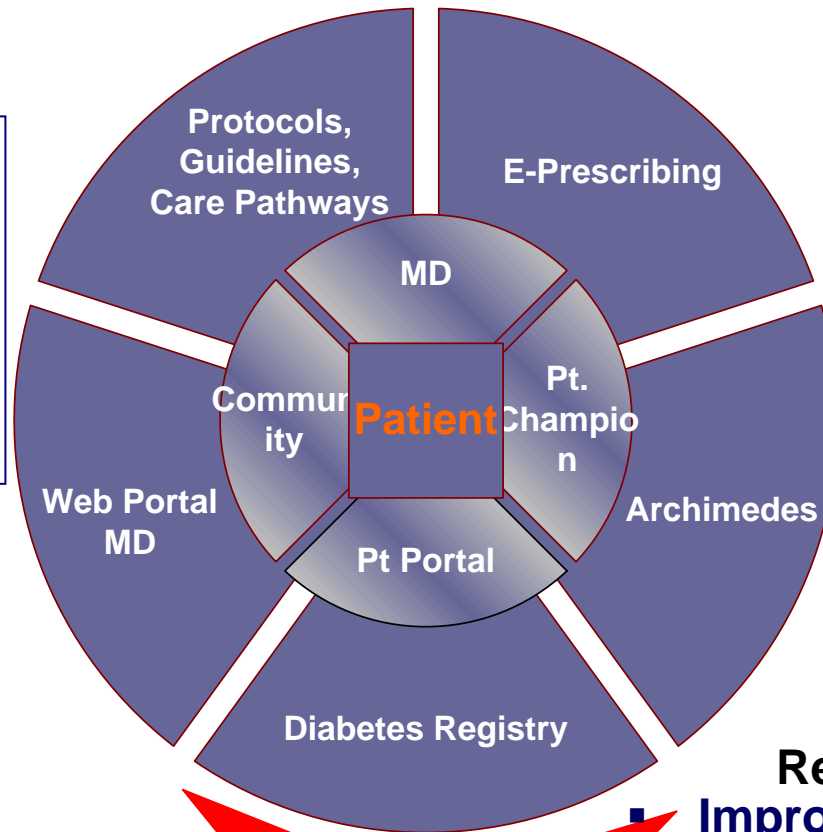


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21st Century Intelligent System For Diabetes Care

CHT Project in progress at the Morehouse School of Medicine Community Physician Network



Creating a system that is:

- Patient-Centered
- Information Rich
- Electronically-Based
- Outcomes Focused
- Quality Based

Resulting in:

- Improved control of diabetes
- Decreased health disparities
- Development of new knowledge through:
 - Evaluation of Protocols
 - Forecasting the health & economic effects of the project on the geographic area

21st Century Intelligent System For Diabetes Care

- The Columbus Initiative
 - Inpatient Insulin Delivery Standardization
 - Central Server for hospitals to access

- WellStar Health System
 - Retinal Imaging Device

Georgia – leading the nation as a model of a 21st Century Intelligent Health System