



PUERTO RICO  
**Health & Insurance**  
CONFERENCE 2011  
"A New Economy in Health Care"

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UNIVERSITY OF MIAMI  
SCHOOL of BUSINESS  
ADMINISTRATION





# "A Basic Comparative Review of Healthcare Systems, Identifying Transformations and Business Opportunities"

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## Obama's Nine Principles of Health Reform

- Reduce long-term growth of health care costs for businesses and government
- Protect families from bankruptcy or debt because of health care costs
- Guarantee choice of doctors and health plans
- Invest in prevention and wellness

Source: The Henry J. Kaiser Foundation



## Obama's Nine Principles of Health Reform (cont.)

- Improve patient safety and quality care
- Assure affordable coverage for all Americans
- Maintain coverage when you change or lose your job
- End barriers to coverage for people with pre-existing conditions
- The Plan Must Put the Country on a Clear Path to Cover ALL Americans

Source: The Henry J. Kaiser Foundation



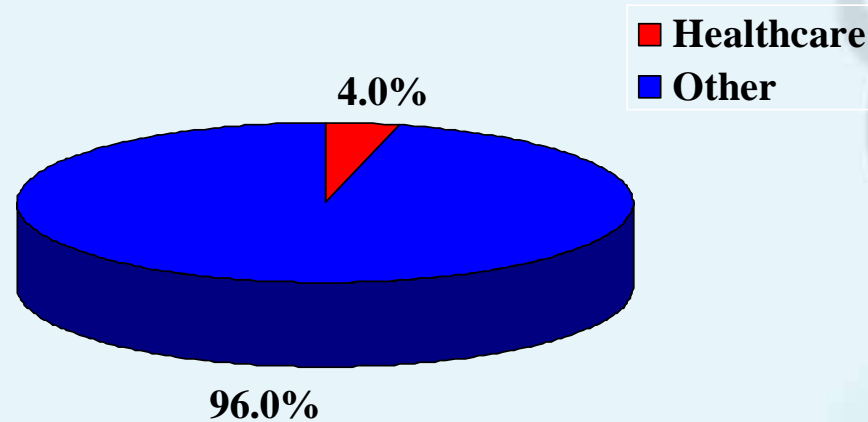
## U.S. National Health Expenditures (billions)

1950	\$ 12.7	1998	\$1190.0
1960	\$ 27.5	1999	\$1265.2
1965	\$ 41.1	2000	\$1352.9
1970	\$ 74.9	2001	\$1469.2
1980	\$ 253.4	2002	\$1602.4
1990	\$ 714.2	2003	\$1735.2
1991	\$ 761.5	2004	\$1855.4
1992	\$ 826.9	2005	\$1982.5
1993	\$ 912.5	2006	\$2112.5
1994	\$ 936.7	2007	\$2239.7
1995	\$1016.5	2008	\$2338.7
1996	\$1038.0	2010*	\$2569.6
1997	\$1125.1	2015*	\$3441.9
		2019*	\$4482.7

Source: CMS, Office of the Actuary, 2009 (\* Projections)



## U.S. National Health Expenditures as a Percentage of GDP (1940)



Source: Centers for Medicare &  
Medicaid Services, Office of the Actuary, 2004

## "A New Economy in Health Care"



# U.S. National Health Expenditures as a Percentage of GDP

1960	5.2%	of GDP
1965	5.9%	of GDP
1970	7.2%	of GDP
1980	9.1%	of GDP
1990	12.3%	of GDP
1991	13.0%	of GDP
1992	13.4%	of GDP
1993	13.7%	of GDP
1994	13.6%	of GDP
1995	13.4%	of GDP
1996	13.7%	of GDP
1997	13.5%	of GDP
1998	13.5%	of GDP
1999	13.5%	of GDP
2000	13.6%	of GDP
2001	14.3%	of GDP
2002	15.1%	of GDP

Source: Centers for Medicare & Medicaid  
Services, Office of the Actuary, 2007



## U.S. National Health Expenditures as Percentage of GDP (con't)

<b>2003</b>	<b>15.6%</b>	<b>of GDP</b>
<b>2004</b>	<b>15.6%</b>	<b>of GDP</b>
<b>2005</b>	<b>15.7%</b>	<b>of GDP</b>
<b>2006</b>	<b>15.8%</b>	<b>of GDP</b>
<b>2007</b>	<b>15.9%</b>	<b>of GDP</b>
<b>2008</b>	<b>16.2%</b>	<b>of GDP</b>
<b>2009*</b>	<b>17.3%</b>	<b>of GDP</b>
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<b>2015*</b>	<b>17.7%</b>	<b>of GDP</b>
<b>2016*</b>	<b>18.1%</b>	<b>of GDP</b>
<b>2017*</b>	<b>18.5%</b>	<b>of GDP</b>
<b>2018*</b>	<b>18.9%</b>	<b>of GDP</b>
<b>2019*</b>	<b>19.3%</b>	<b>of GDP</b>

\* Projected

Source: Centers for Medicare & Medicaid Services,  
 National Health Care Expenditures Projections: 2015-2018  
<http://www.cms.hhs.gov/statistics/nhe/#projected>,





## By Comparison – Health Expenditures as percent of GDP for 2008 (or latest year available)

U.S.	16.0%
U.K.	8.7%
Japan	8.1%
Canada	10.4%
France	11.2%
Switzerland	10.7%
Germany	10.5%



## U.S. National Health Expenditures Per Capita

<b>1960</b>	<b>\$ 148</b>	<b>2003</b>	<b>\$ 5,973</b>
<b>1965</b>	<b>\$ 211</b>	<b>2004</b>	<b>\$ 6,327</b>
<b>1970</b>	<b>\$ 356</b>	<b>2005</b>	<b>\$ 6,701</b>
<b>1980</b>	<b>\$1,100</b>	<b>2006</b>	<b>\$ 7,071</b>
<b>1990</b>	<b>\$2,814</b>	<b>2007</b>	<b>\$ 7,423</b>
<b>1991</b>	<b>\$3,044</b>	<b>2008</b>	<b>\$ 7,681</b>
<b>1992</b>	<b>\$3,266</b>	<b>2009*</b>	<b>\$ 8,047</b>
<b>1993</b>	<b>\$3,468</b>	<b>2010*</b>	<b>\$ 8,290</b>
<b>1994</b>	<b>\$3,618</b>	<b>2011*</b>	<b>\$ 8,643</b>
<b>1995</b>	<b>\$3,783</b>	<b>2012*</b>	<b>\$ 9,035</b>
<b>1996</b>	<b>\$3,938</b>	<b>2013*</b>	<b>\$ 9,505</b>
<b>1997</b>	<b>\$4,103</b>	<b>2014*</b>	<b>\$10,048</b>
<b>1998</b>	<b>\$4,295</b>	<b>2015*</b>	<b>\$10,631</b>
<b>1999</b>	<b>\$4,522</b>	<b>2016*</b>	<b>\$11,281</b>
<b>2000</b>	<b>\$4,789</b>	<b>2017*</b>	<b>\$11,952</b>
<b>2001</b>	<b>\$5,150</b>	<b>2018*</b>	<b>\$12,658</b>
<b>2002</b>	<b>\$5,564</b>	<b>2019*</b>	<b>\$13,387</b>

Source: Health Affairs – Volume 23, Number 1  
 CMS, Office of the Actuary, 2009 \* Projected



## Relationship to Other Countries

1. U.S. National Medical Expenditures per capita are more than 80% higher than in Canada
2. U.S. National Medical Expenditures per capita are almost three times higher than in the United Kingdom
3. People in the U.S. are spending more on health care than on food and housing combined



## Source of Problems

### 1. Aging of the population

- a. Population aged  $\geq 65$  years use 2x medical service compared to the young.

Age Group	1995	2000	2025	2075
$\geq 65$	33.5	35.2	60.6	83.3
$\geq 75$	15.0	16.7	25.0	45.7
$\geq 85$	3.8	4.4	6.3	16.9

In 1900, the life expectancy was:

W

B

M	F
46.6	48.7

M	F
32.5	35.5



# U.S. Population Age: Less than 65 Years

## Percentage Change from Previous Year

2005	0.9
2006	0.9
2007	0.8
2008	0.7
2009*	0.8
2010*	0.8
2011*	0.7
2012*	0.6
2013*	0.5
2014*	0.5
2015*	0.5
2016*	0.5
2017*	0.5
2018*	0.4
2019*	0.4

Source: CMS, Office of the Actuary 2008, \*2007-2017  
are projections



## U.S. Population Age: 65 Years and Older

Percentage Change from Previous Year

2005	1.1
2006	1.8
2007	2.0
2008	2.5
2009	1.8
2010	1.6
2011	2.1
2012	3.0
2013	3.2
2014	3.0
2015	2.9
2016	3.0
2017	3.1
2018	3.1
2019	3.2

Source: CMS, Office of the Actuary 2008 (2007-2017 are projections)



## Source of Problems

### 1. Aging of the population

Limitation of activity caused by chronic conditions: United States, 2006

Percent of persons with any activity limitation

65-74 years 24.8 %

75 years and over 41.6%



## Source of Problems

### 1. Aging of the population

Limitation of activity caused by chronic conditions: United States, 2006

	Percent with ADL* limitation	Percent with IADL* limitation
65-74 years	3.2%	5.6 %
75 years and over	8.6%	17.3 %

\*These estimates are for non-institutionalized older persons. ADL is “activities of daily living” and IADL is “instrumental activities of daily living”. Respondents were asked about needing the help of another person with personal care (ADL) and routine needs such as chores and shopping (IADL) because of a physical, mental, or emotional problem.





## Source of Problems

### 1. Aging of the population

Respondent-assessed health status: United States, 2006

Percent of persons with fair or poor health

65-74 years	21.9 %
75 years and over	28.1 %



## Source of Problems

### 1. Aging of the population

Health care visits to doctor’s office, emergency departments, and home visits within the past 12 months: United States, 2006

	<u>Number of health care visits</u>			
	None	1-3	4-9	10 or more
<b>65-74 years</b>	6.7%	34.6%	36.6 %	22.1 %
<b>75 years and over</b>	5.3 %	31.5 %	35.7 %	27.6 %



## Source of Problems

### 1. Aging of the population

Nursing home residents 65 years of age and over: United States, 2004\*

Residents per 1,000 population

65-74 years	9.4
75-84 years	36.1
85 years and over	138.7



## Source of Problems

1. Technological innovations which are cost increasing
2. More services per person
3. Increases in price a result of:
  - a. Increased demand
  - b. Market control over price by medical care suppliers



- Medicare will become insolvent between 2017-2029 depending on assumptions.

Trustees of Medicare, 2009  
California Healthline;  
Associated Press 2010



# Assumptions

- Reimbursement for Physicians under Medicare
  - 0.5% increase in reimbursement to MDs in 2010
  - 21.5% cut in reimbursement to MDs in 2011
  - Maintain proposed cut in reimbursement
  - Has been postponed for one year by other legislation



## Poor Health Care Outcomes From Our System

Life expectancy at birth

- a. We are ranked 49<sup>th</sup> in the world at 78.24 years
- b. We are ranked 46<sup>th</sup> in infant mortality rates.

CIA World Factbook, 2010 estimates



- U.S. Infant Mortality Rate
  - 6.14/1,000 live births
- Infant Mortality rate in Puerto Rico
  - 8.23/1,000 live births

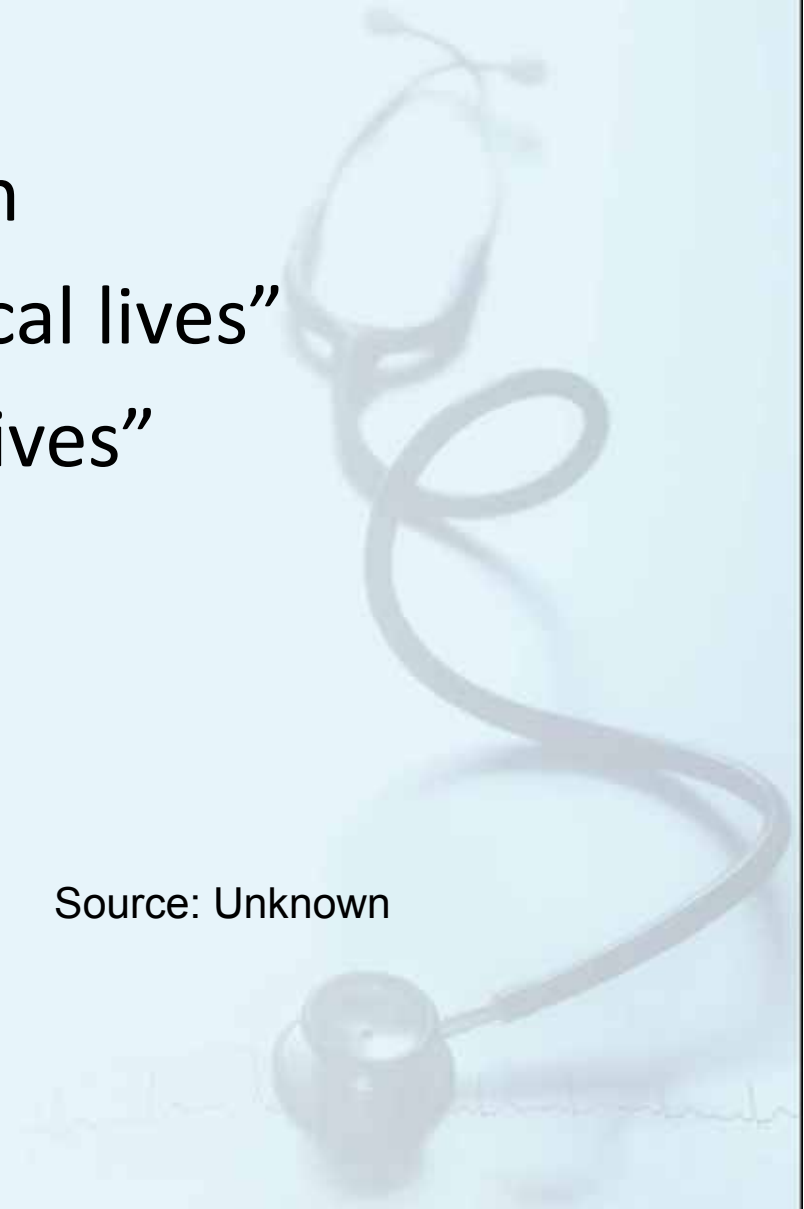






- Lack of focus on Prevention
- "Prevention affects statistical lives"
- "Treatment affects actual lives"

Source: Unknown



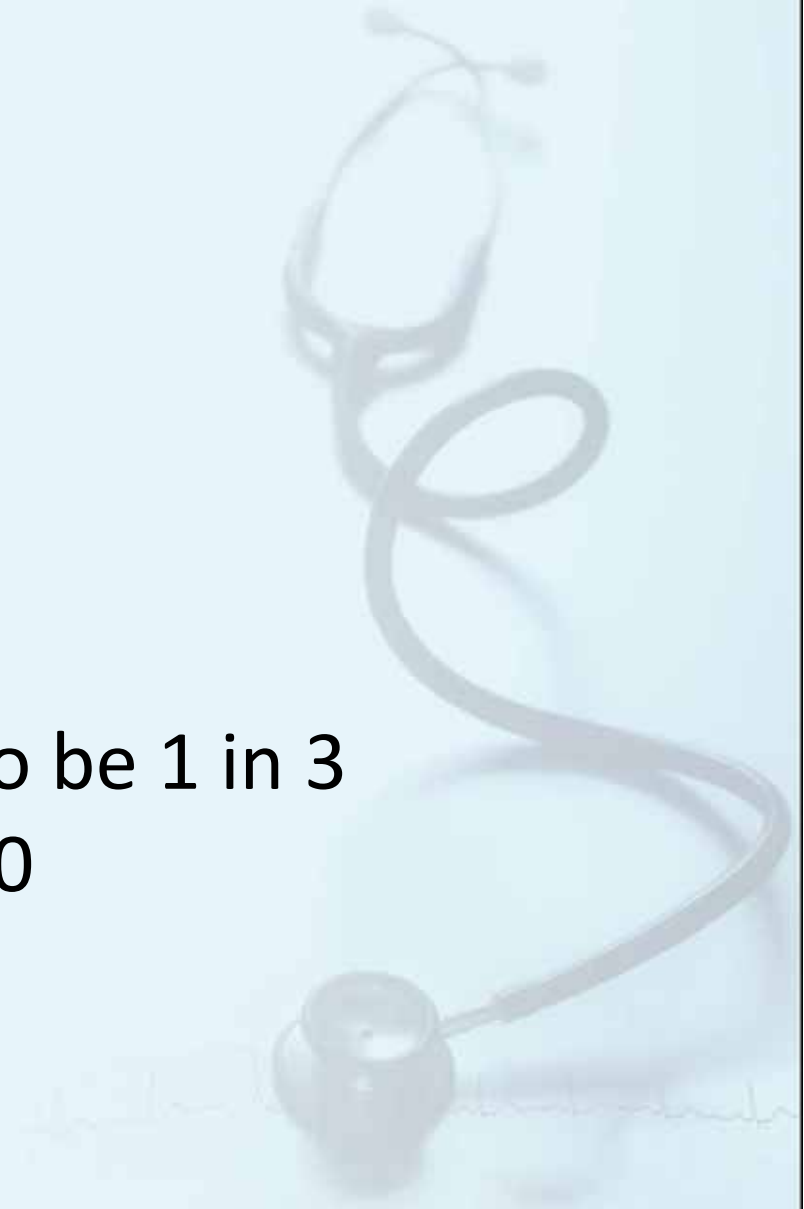


- For each adult
  - 68% of all American adults are overweight
  - 34% of all American adults are obese
  - 17% of all American children are obese

CDC, 2010

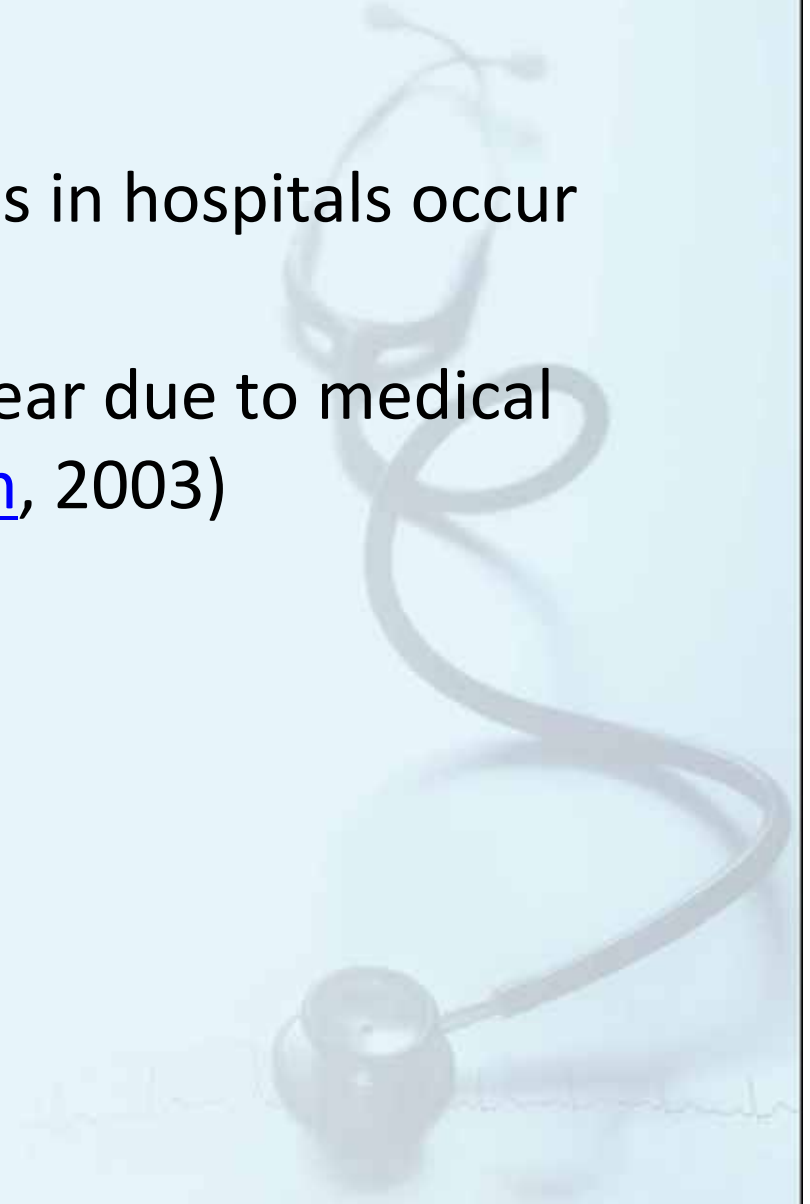


- Diabetes
  - 5.6% of all Americans
  - 12.2% of all Puerto Ricans
- Diabetes rate is expected to be 1 in 3 Americans by the year 2050





- 44,000 to 98,000 annual deaths in hospitals occur due to errors (IOM, 1999)
- Hospital deaths at 195,000 a year due to medical errors ([www.healthgrades.com](http://www.healthgrades.com), 2003)





- More people die from medical errors than die from AIDS, breast cancer or car accidents.

Commonwealth Fund, 2005



- Aim for 94-95% safety rate in hospitals?

Commonwealth Fund, 2005



- If we found that a 99.4 percent rate of safety in hospitals was acceptable and translated that rate to airline travel, there would be 1 major airline crash every 3 days and 84 unsafe landings per day.

Commonwealth Fund, 2005



# Total Physicians

<b>1949</b>	<b>201,277</b>	<b>2000</b>	<b>813,770</b>
<b>1960</b>	<b>260,484</b>	<b>2002</b>	<b>853,187</b>
<b>1970</b>	<b>334,028</b>	<b>2006</b>	<b>921,904</b>
<b>1980</b>	<b>467,679</b>	<b>2007</b>	<b>941,304</b>
<b>1990</b>	<b>615,421</b>	<b>2009</b>	<b>1,078,134</b>
<b>1995</b>	<b>720,325</b>		

Source: Health, United States, 2008; AMA: 2005, Henry  
Kaiser Foundation 2007





## Total Physicians Number per 100,000 civilian population

<u>1975</u>	<u>1985</u>	<u>1995</u>	<u>2000</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
165	220	262	266	312	316	319	322



- It is estimated that we may experience a physician shortage of 63,000 by 2015 and 91,500 by 2020.

PR Log



- Physicians are being recruited away from Puerto Rico, exasperating the problem in Puerto Rico as current number of physicians per 100,000 people is approximately 175

PAHO

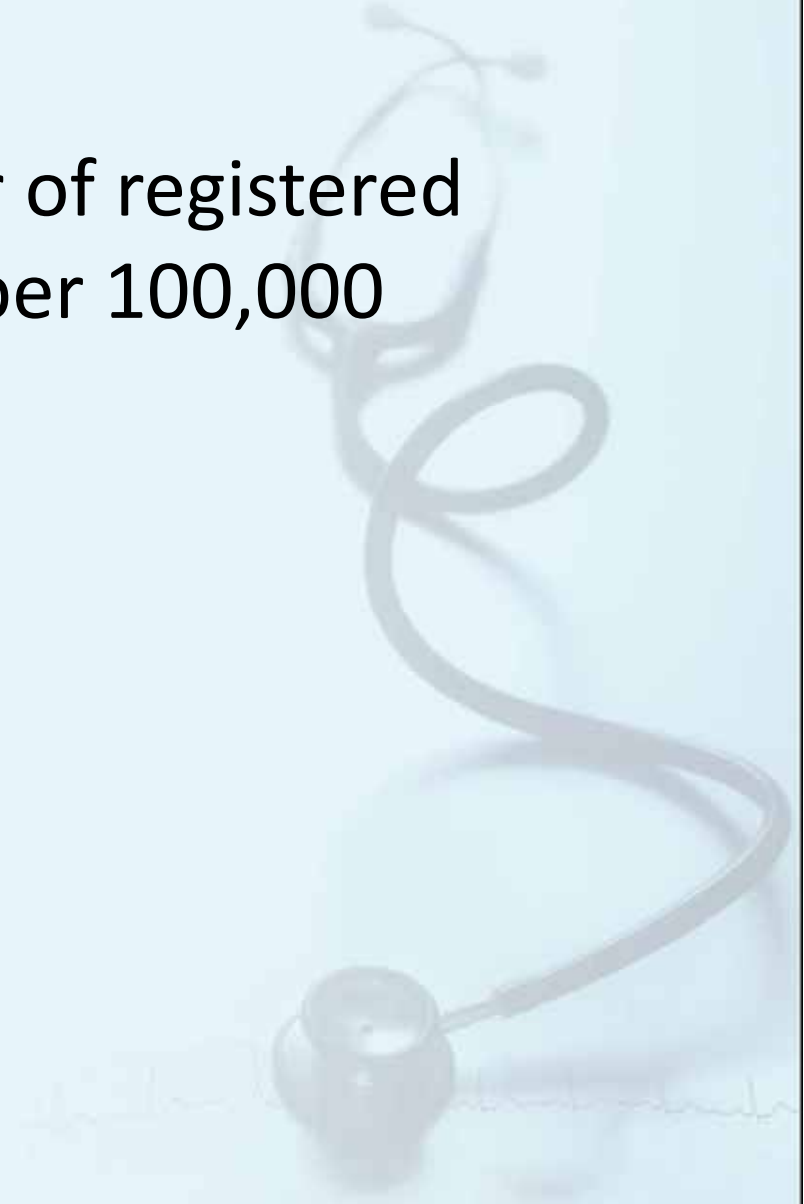


## Total Number of Registered Nurses Employed

	<b>Total</b>	<b>Per 100,000 pop.</b>
1999	2,205,430	808.8
2002	2,239,530	779.2
2005	2,368,070	799.0
2007	2,468,340	816.8
2009	2,583,770	842.0



- In Puerto Rico, the number of registered nurses employed is 395.3 per 100,000 population.



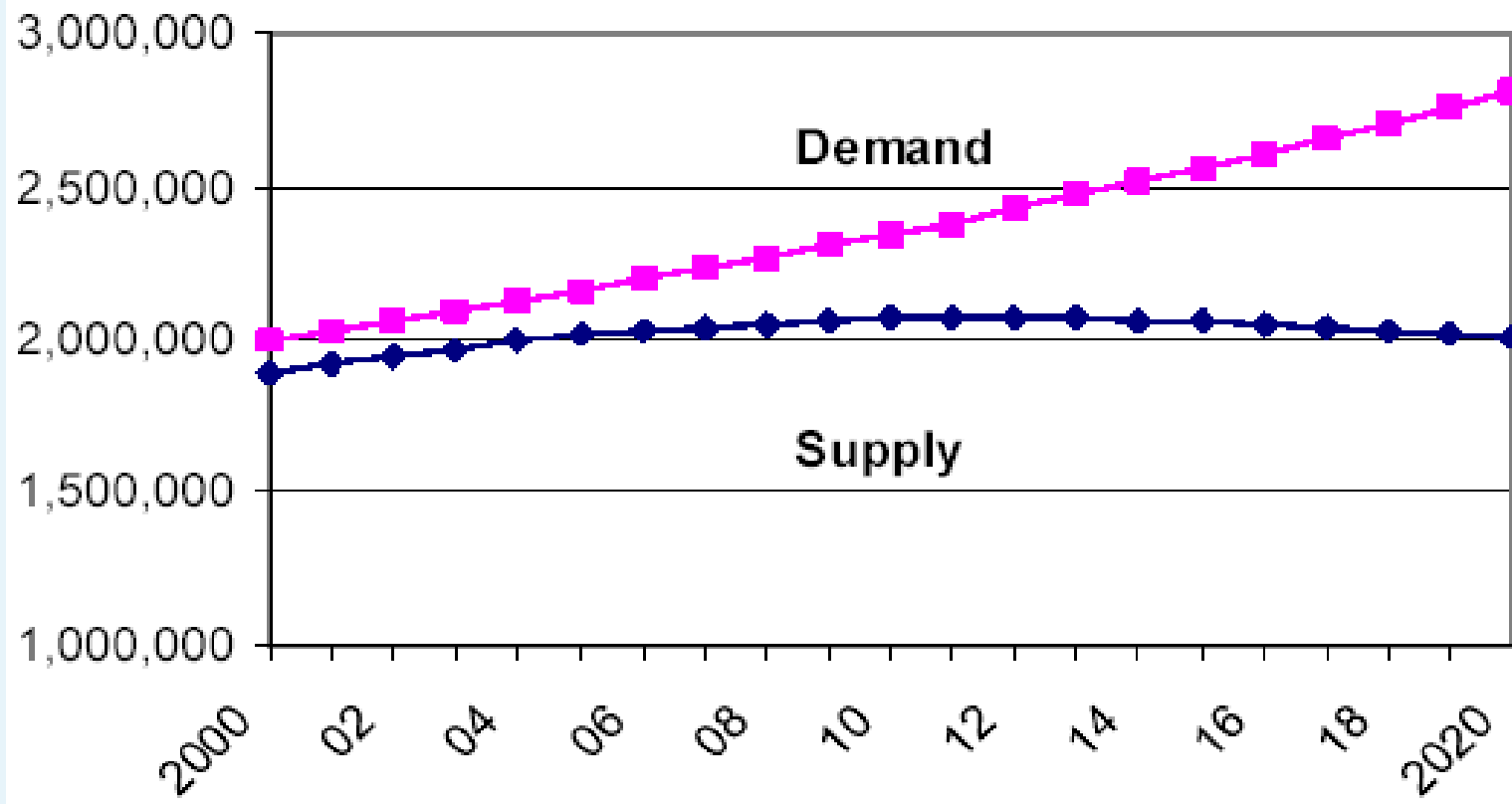


# Nursing Shortage Stats

- Approx. 116,000 RNs needed nationwide
- More than 1.2 million new and replacement nurses will be needed by 2014
- Currently there is a 12% shortfall of nurse educators



## National Supply and Demand Projections for FTE Registered Nurses: 2000 to 2020



Source: Bureau of Health Professions, RN Supply and Demand Projections, 2006



## National Supply and Demand Projections for FTE Registered Nurses; 2000 through 2020

State	Supply	Demand	Excess or Shortage (Supply Less Demand) (- = Shortage)	Percent Shortage
2000	1,889,243	1,999,950	-110,707	-6%
2001	1,912,667	2,030,971	-118,304	-6%
2002	1,937,336	2,062,556	-125,220	-6%
2003	1,959,192	2,095,514	-136,322	-7%
2004	1,989,329	2,128,142	-138,813	-7%
2005	2,012,444	2,161,831	-149,387	-7%
2006	2,028,548	2,196,904	-168,356	-8%
2007	2,039,772	2,232,516	-192,744	-9%
2008	2,047,729	2,270,890	-223,161	-10%
2009	2,059,099	2,307,236	-248,137	-11%
2010	2,069,369	2,344,584	-275,215	-12%
2011	2,075,891	2,379,719	-303,828	-13%
2012	2,075,218	2,426,741	-351,523	-14%
2013	2,068,256	2,472,072	-403,816	-16%
2014	2,061,348	2,516,827	-455,479	-18%
2015	2,055,491	2,562,554	-507,063	-20%
2016	2,049,318	2,609,081	-559,763	-21%
2017	2,041,321	2,656,886	-615,565	-23%
2018	2,032,230	2,708,241	-676,011	-25%
2019	2,017,100	2,758,089	-740,989	-27%
2020	2,001,998	2,810,414	-808,416	-29%

Source: Bureau of Labor  
Statistics, 2002

[http://www.ahcanal.org/research\\_data/Staffing/Documents/Registered\\_Nurse\\_Supply\\_Demand.pdf](http://www.ahcanal.org/research_data/Staffing/Documents/Registered_Nurse_Supply_Demand.pdf)





## RN Vacancy Rate

### 2003 Healthcare Human Resources Demand Audit

**7% Vacancy Rate** is considered the level for designating the situation a **shortage**.

**9% Vacancy Rate** is considered a level for **concern**.

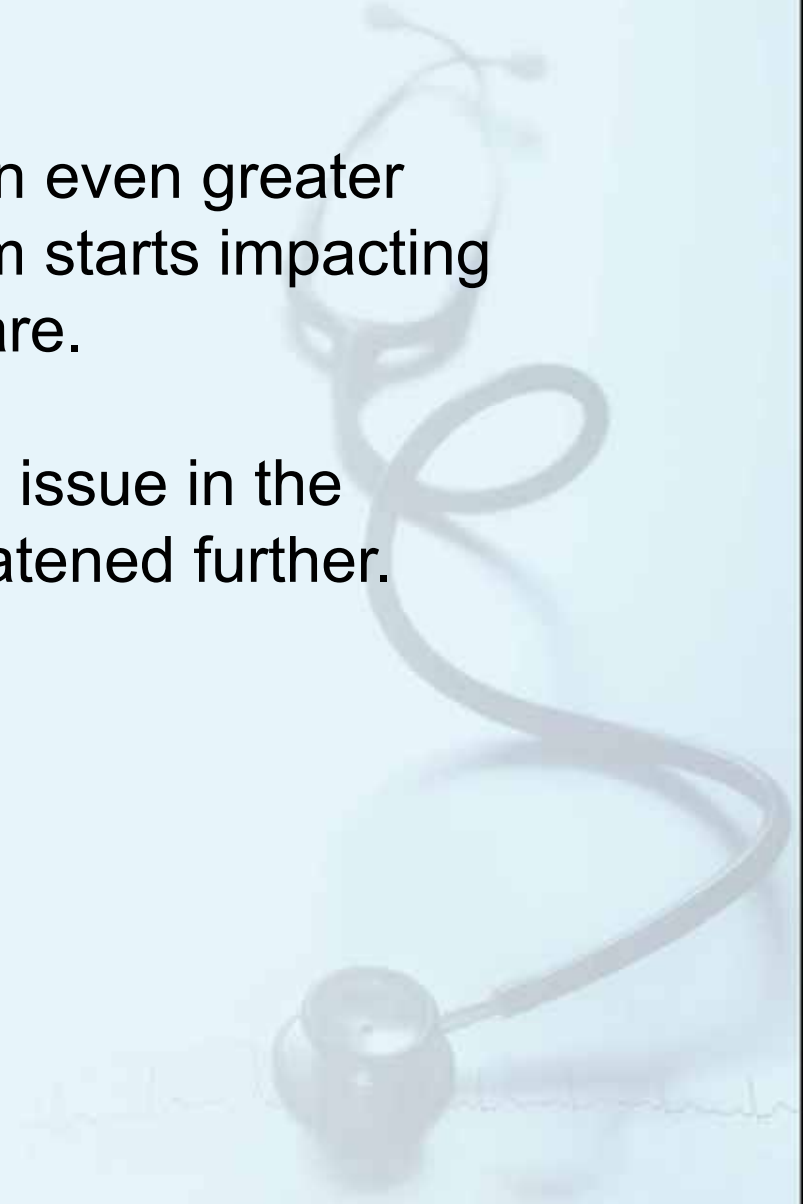
**10% Vacancy Rate** is considered a level for **action**.

**12% Vacancy Rate** is considered a **crisis**.



Nursing shortage will be an even greater issue as health care reform starts impacting the demand for medical care.

Quality of care, already an issue in the United States, will be threatened further.





# The Uninsured Problem

- 50.7 million uninsured – A rate of 16.7 percent, this time is up from 46.3 million, or 15.4 percent in 2008
- 330,000 uninsured in Puerto Rico
- 89.5 million have been uninsured at least one month during the year
- Underinsurance
- If no policy has been enacted, it is estimated that by the year 2018, there would have been nearly 67 million uninsured in the United States



- Puerto Rico has a low uninsured rate.
- 330,000 uninsured. 8.4% rate
- 2003 Breakdown:
  - Private: 37.0% Puerto Ricans Insured
  - Public: 40.0% Medicaid
  - 26% (Medicare 14%, public employees 12%)
  - Uninsured: 7.1%



# Policy Implementation





# Universal Coverage Options

- Private Systems
  - Netherlands
  - Managed Competition
- Single Payer-Private Providers
  - Canada
- Single Payer – Government Providers
  - United Kingdom





## Basic Elements

- Require health insurance coverage for all Americans enforced through a penalty
  - \$750 per person per year (2014)

Source: The Henry J. Kaiser Foundation, the Commonwealth Fund 2010.



## Basic Elements

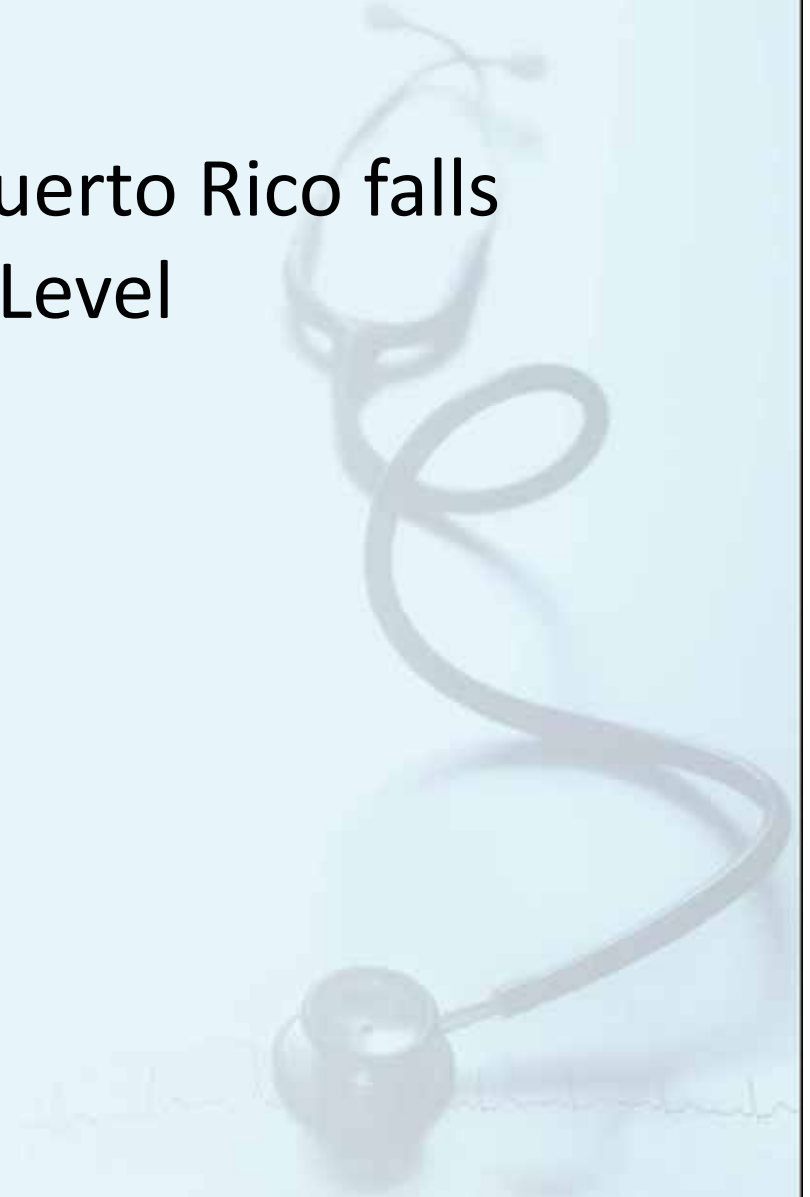
- Subsidies for those with incomes up to 400% of Federal Poverty Level (FPL) - \$73,240 for family of 3 in 2010 (2014)
- Expand Medicaid eligibility –
  - 133% (2014)
- Currently, 133 percent of the Federal Poverty level is
  - \$14,403 for an individual
  - \$24,352 for a family of 3

Source: The Henry J. Kaiser Foundation, the Commonwealth Fund 2010



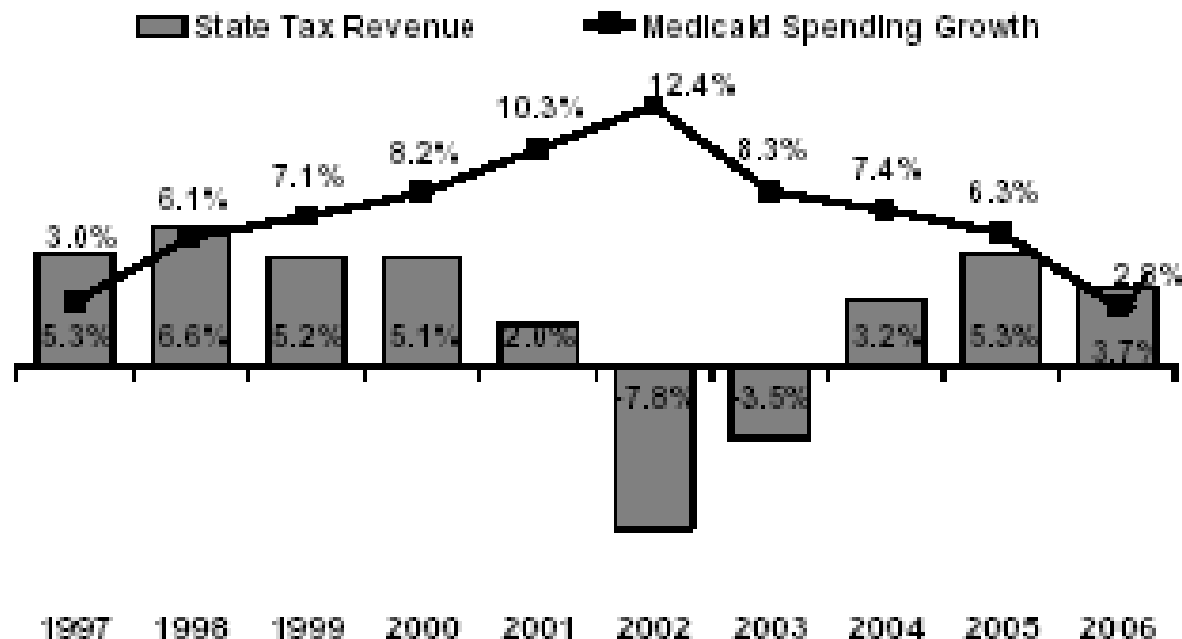


- 45% of the population in Puerto Rico falls below the Federal Poverty Level





## State Tax Revenue and Medicaid Spending Growth, 1997-2006



NOTE: State Tax Revenue data is adjusted for inflation and legislative changes. Preliminary estimate for 2006.

SOURCE: KCMU Analysis of CMS Form 64 Data for Historic Medicaid Growth Rates and KCMU/HMA Survey for 2006 Medicaid Growth Estimates; Analysis by the Rockefeller Institute of Government for State Tax Revenue.


 COMMISSION ON  
 HEALTH CARE



- Gradual reduction of Medicare Part D “Doughnut hole” (2011-2020) (\$250 deduction effective 2011)
- Puerto Rico is ahead of the curve in terms of Medicaid and Managed Care with 96.5% of total Medicaid enrollees so enrolled
- Shifts risk away from government to insurance provider
- Reduces risk of Medicaid fraud



# Basic Elements

- Employers must 'play or pay' (2014)  
Stipulation relating to actual amount of coverage to be considered to be playing
- Small employers (< 50 employees) exempted (2014) su
- Creation of high risk pools for those who cannot obtain insurance elsewhere (2011)
- Provide incentives (tax credits) for small employers (<26 employees) who provide health insurance
  - 35% tax credit (2010-2013)
  - 50% tax credit (2014 on)

Source: The Henry J. Kaiser Foundation,  
the Commonwealth Fund 2010



# Basic Elements

- Insurance regulation
  - Consumer protection (ability to appeal to an independent arbitrator) (2011)
  - No Co-payments for many preventive services and treatments(2011)
  - Provide dependent coverage for children up to age 26 (2011)
  - No denying children for preexisting condition (2011)
  - No lifetime maximums (2011)
  - Oversee or regulate cost/pricing (2011)
    - (Must pay out minimum of 85% on large group markets and 80% on small groups/individual markets or provide rebates)

Source: The Henry J. Kaiser Foundation, the Commonwealth Fund 2010



# Basic Elements

- Insurance regulation (con't.)
  - Track reforms to reward providers for quality care, rather than volume (2011)
  - Medicare increases primary care payment by 10% (2011)
  - Medicare launches "Physician Compare Website" to review and compare physician quality, and experience by patients (2011)
  - Prohibition of pre-existing conditions exclusions (2014)
  - Prohibition of basing insurance premiums on health status (2014)



# Basic Elements

- **Financing**

- Establish demonstration projects. Preventive assessment on questionable performance by hospital providers (quality and outcomes)
- Medicare payments will be adjusted for improvement in productivity (\$160B, 2010-2019)
- Medicare/Medicaid disproportionate share payments fall (\$36B, 2010-2019)
- New annual fees on health insurers (\$60.1B, 2014-2019)
- Drug manufacturers fee (\$27B, 2011-2019)
- 2.9% excise tax on medical device manufacturers (\$20B, 2013-2019)
- Excise tax on "Cadillac" health insurance plan (\$32B, 2018-2019)
- Increase in Medicare Hospital Insurance Tax of high income earners (\$210B, 2012-2019)

Sources: The Henry J. Kaiser Foundation  
The Washington Post



## Issues with Respect to Medicare in Health Care Reform

- Medicare Advantage

  - Currently at 112% of traditional Medicare

  - 100% plus up to 5% bonuses for quality performance improvement of traditional Medicare (2014)

- Reimbursement for Physicians under Medicare

  - 0.5% increase in reimbursement to MDs in 2010

  - 21.5% cut in reimbursement to MDs in 2011

  - Maintain proposed cut in reimbursement

  - Has been adjusted temporarily by other legislation

- Establish independent Medicare Commission (2014)

  - To monitor waste and potential budget savings

Source: The Henry J. Kaiser Foundation,  
the Commonwealth Fund 2010