Mind the Gap:
Opportunities for Interdisciplinary Research

Mary Beth Zeni, ScD, RN
Cleveland State University
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WATCH THE GAP


MIND THE GAP

Mind the Gaps

- **Translation of evidence into practice**
  - Evaluation of current practices (i.e., systematic reviews)
  - Years from research to practice changes
- **Access to health care**
  - Federally designated Health Professional Shortage Areas: urban and rural
    - Primary, mental health, and dental
  - Mental health services
  - Substance use: prevention, treatment, post-treatment
  - Health insurance coverage; discontinuous coverage
- **Transitions in health care**
  - Goal: Seamless delivery of health care services
  - People living with chronic conditions

Mind the Gaps

- **Focus on in-patient vs. community services**
  - Decreased hospital length of stay and service shift to out-patient arenas
  - Increased need for out-patient and home-based services
  - Resource allocation: care vs. prevention
- **Shift from individual patient to population health**
  - Profound health disparities
  - Need for sustainable, effective population-based health initiatives
- **"Patient-centered" services**
  - "Patient engagement" and satisfaction with services
  - Medical Home or Health Care Home Model
  - Health literacy initiatives

Mind the Gaps

- **Vulnerable populations**
  - Social determinants of health
  - Beyond dichotomies
  - Health Disparity Model (Almgren, 2013)

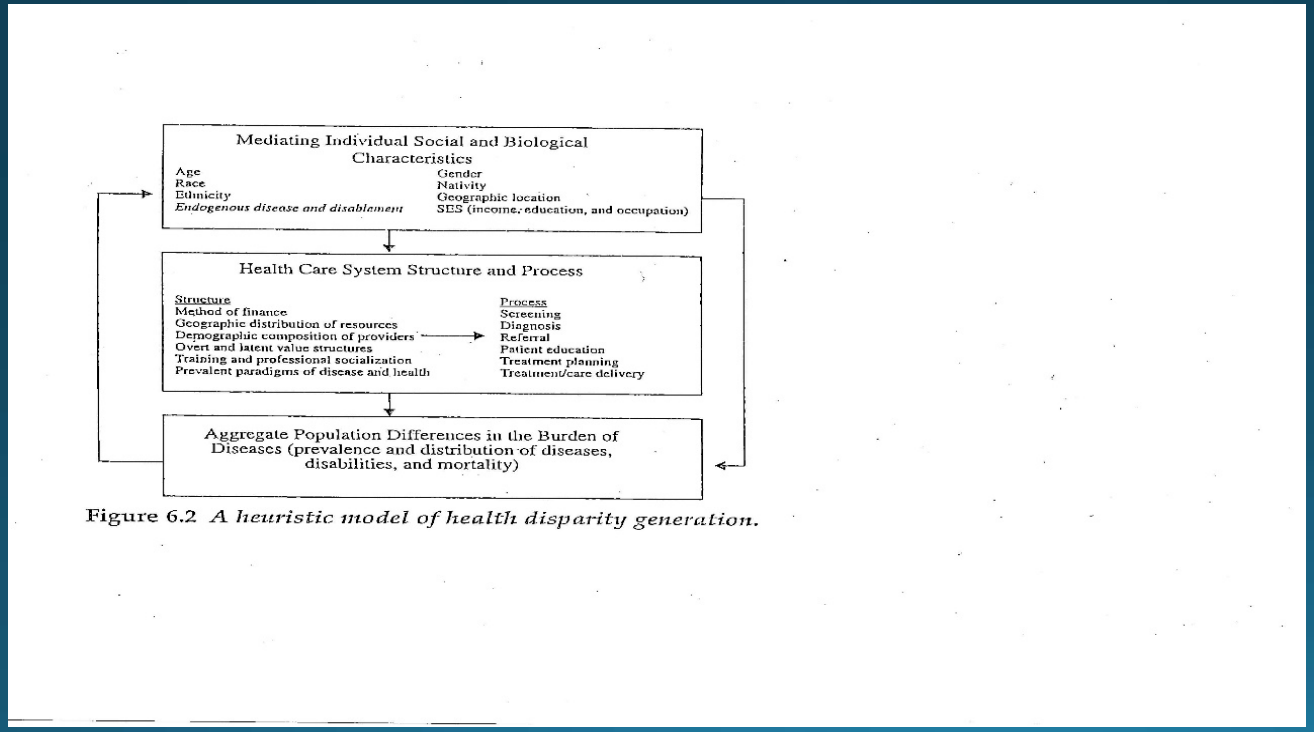


Figure 6.2 *A heuristic model of health disparity generation.*

Mind the Gaps

- **Future nursing shortage**
  - Retirement cohort
  - Need for advanced practice registered nurses (APRNs)
- **New skill sets needed among professional nurses**
  - Critique and translation of evidence into practice
    - Implementation and evaluation issues (process and outcome)
  - Interprofessional leadership role
  - Life long education
    - Access to education issues
    - Seamless education models

Projections

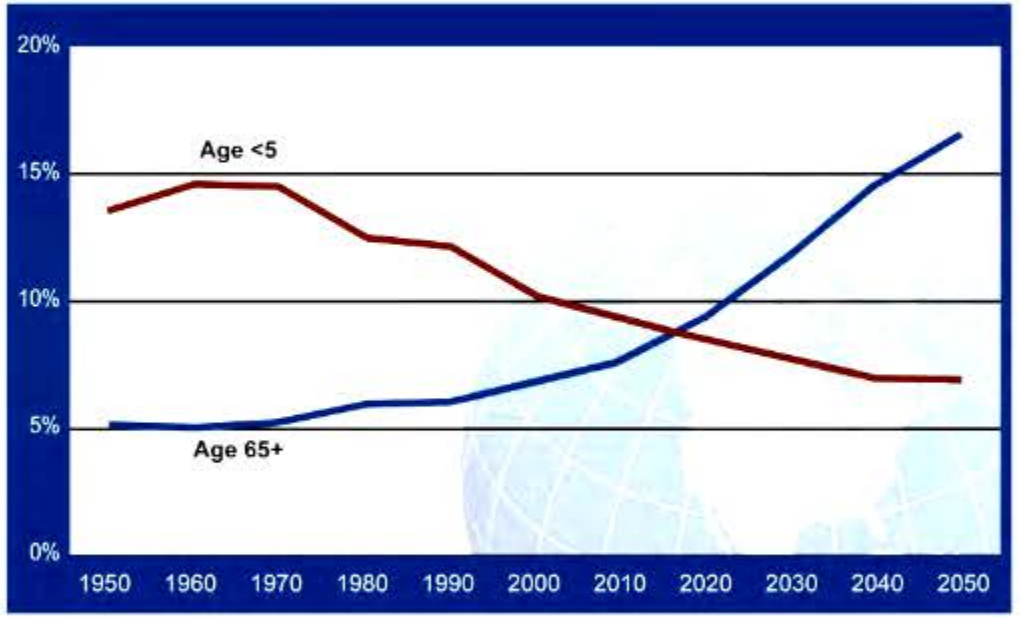
- **Increases in access due to health insurance coverage?**
  - Unknown future of Affordable Care Act
  - Patient health care/medical home model
- **Increased number of people 65 years+**
  - Number of people 65+ will outnumber children < 5 years old
  - "…brink of demographic milestone…" (WHO, 2010)
- **Increased chronic conditions**
  - Co-morbidities associated with obesity
  - Incidence/Prevalence with increased age
    - Dementia
- **Opioid epidemic**

outnumber children under age 5. Driven by falling fertility rates and remarkable increases in life expectancy, population aging will continue, even accelerate (Figure 1). The number of people aged 65 or older is projected to grow from an estimated 524 million in 2010 to nearly 1.5 billion in 2050, with most of the increase in developing countries.

The remarkable improvements in life expectancy over the past century were part of a shift in the leading causes of disease and death. At the dawn of the 20th century, greatest burden on global health.

In today's developing countries, the rise of chronic noncommunicable diseases such as heart disease, cancer, and diabetes reflects changes in lifestyle and diet, as well as aging. The potential economic and societal costs of noncommunicable diseases of this type rise sharply with age and have the ability to affect economic growth. A World Health Organization analysis in 23 low- and middle-income countries estimated the economic losses from three noncommunicable diseases (heart disease,

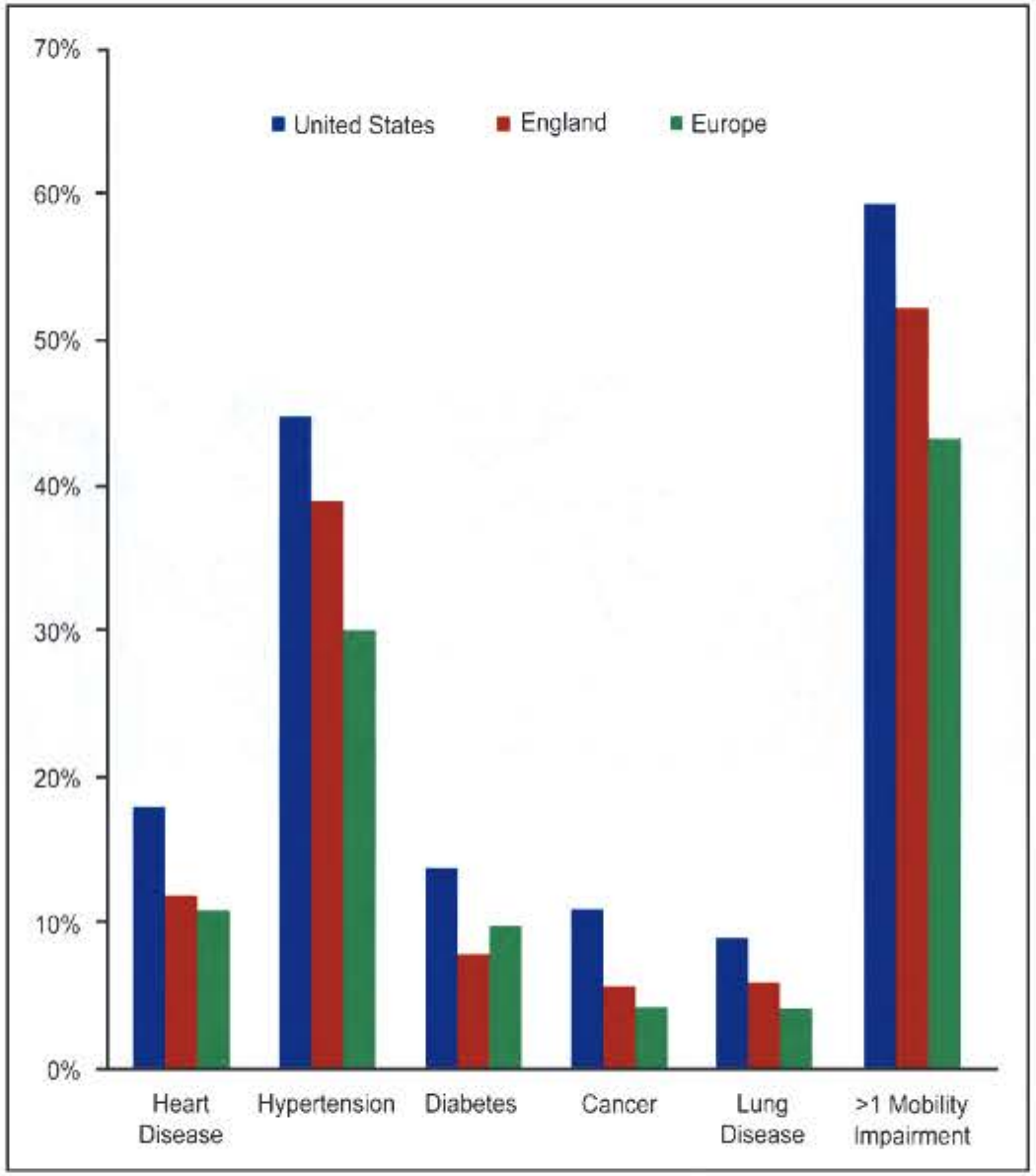
Figure 1.
Young Children and Older People as a Percentage of Global Population: 1950-2050



Source: United Nations. *World Population Prospects: The 2010 Revision.*
Available at: http://esa.un.org/unpd/wpp.

Figure 8.

Prevalence of Chronic Disease and Disability among Men and Women Aged 50-74 Years in the United States, England, and Europe: 2004



Source: Adapted from Avendano M, Glymour MM, Banks J, Mackenbach JP. Health disadvan-

Overdose Prevention +
Information for Patients +
Information for Providers +
State Information +
CDC Publications
Resource Center +

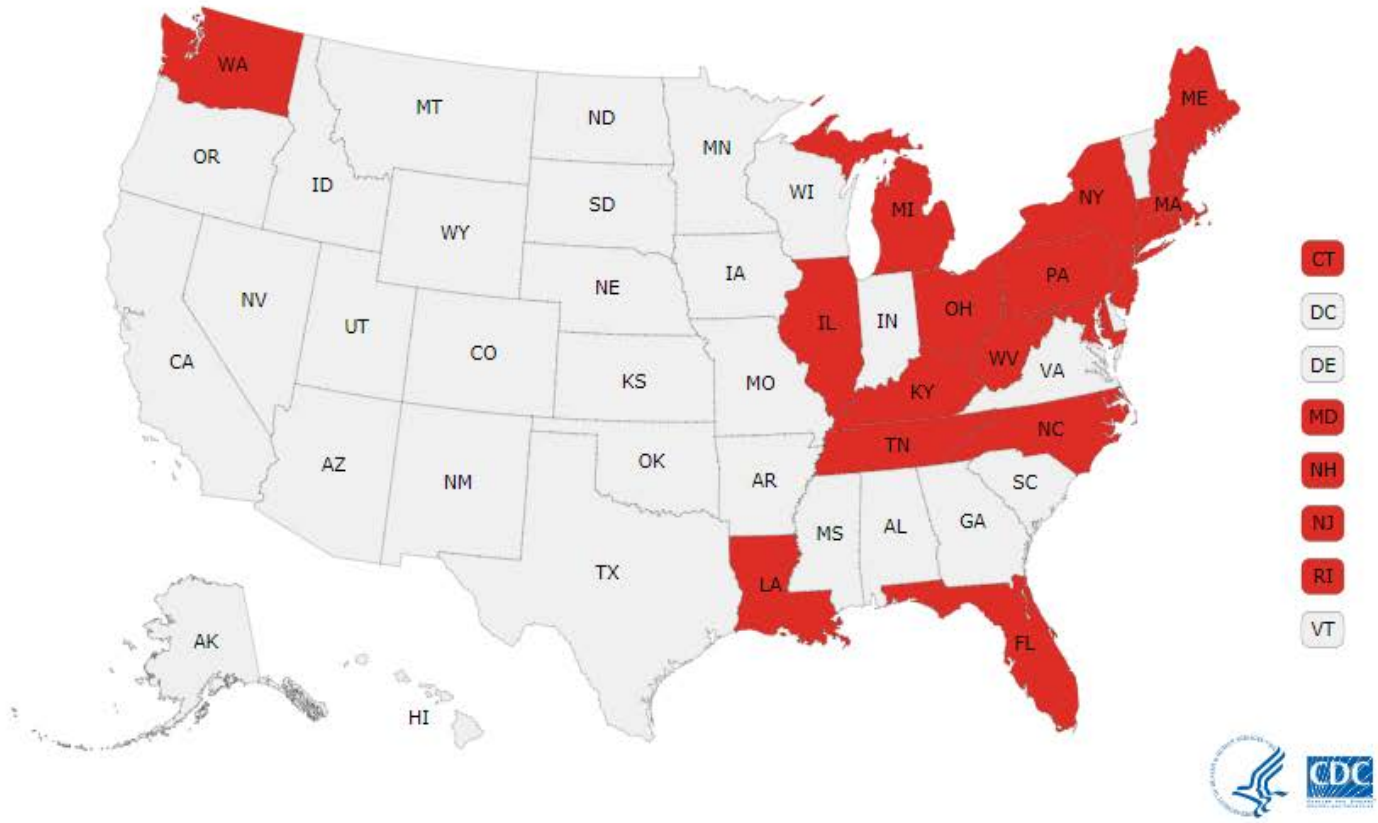
National Center for Injury Prevention and Control

Child Safety and Injury Prevention

HEADS UP to Brain Injury Awareness

2014-2015 Death Increases | 2013-2014 Death Increases | 2015 Deaths | 2014 Deaths | 2013 Deaths | Data Sources

Statistically significant drug overdose death rate increase from 2014 to 2015, US states



Statistically significant increase

Data Resources

Publications & Products

Research Findings & Reports

- EPC Evidence-Based Reports
- Fact Sheets
- Full Research Reports
- Quality & Disparities Reports
  - Quality & Disparities Report 2014
  - Chartbooks 2014
- Technology Assessment Program
- AHRQ Research Studies

2016 National Healthcare Quality and Disparities Report

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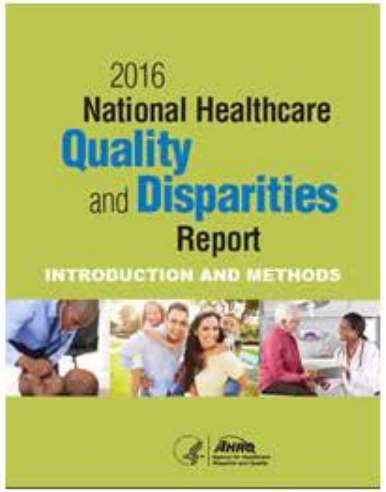
Table of Contents

For the 14th year in a row, AHRQ is reporting on health care quality and disparities. The annual *National Healthcare Quality and Disparities Report* (QDR) is mandated by Congress to provide a comprehensive overview of the quality of health care received by the general U.S. population and disparities in care experienced by different racial and socioeconomic groups. The report assesses the performance of our health care system and identifies areas of strengths and weaknesses, as well as disparities, for access to health care and quality of health care. Quality is described in terms of the National Quality Strategy priorities, which include patient safety, person-centered care, care coordination, effective treatment, healthy living, and care affordability. The report is based on more than 250 measures of quality and disparities covering a broad array of health care services and settings. Selected findings in each priority area are shown in this report, as are examples of large

Publication: 17-0001



RELATED PUBLICATIONS

Print version (PDF, 1.31 MB) (A final typeset version of this report will be

2016 National Healthcare Quality and Disparities Report

- **Access:** While most access measures (65%) tracked in this report did not demonstrate significant improvement (2000-2014), **uninsurance rates** (measured as uninsured at the time of interview) decreased from 2010 to 2016.

- **Quality:** Quality of health care improved overall from 2000 through 2014-2015 but the pace of improvement varied by priority area:
  - Person-Centered Care: About 80% of person-centered care measures improved overall.
  - Patient Safety: Almost two-thirds of patient safety measures improved overall.
  - Healthy Living: About 60% of healthy living measures improved overall.
  - Effective Treatment: More than half of effective treatment measures improved overall.
  - Care Coordination: About half of care coordination measures improved overall.
  - **Care Affordability**: About 70% of care affordability measures did not change overall.

2016 National Healthcare Quality and Disparities Report

- **Disparities:** Overall, some disparities were getting smaller from 2000 through 2014-2015, but **disparities persist, especially for poor and uninsured populations in all priority areas:**

  - While 20% of measures show disparities getting smaller for Blacks and Hispanics, **most disparities have not changed significantly for any racial and ethnic groups.**
  - More than half of measures show that **poor and low-income households have worse care than high-income households; for middle-income households, more than 40% of measures show worse care than high-income households.**
  - Nearly two-thirds of measures show that **uninsured people** had worse care than privately insured people.

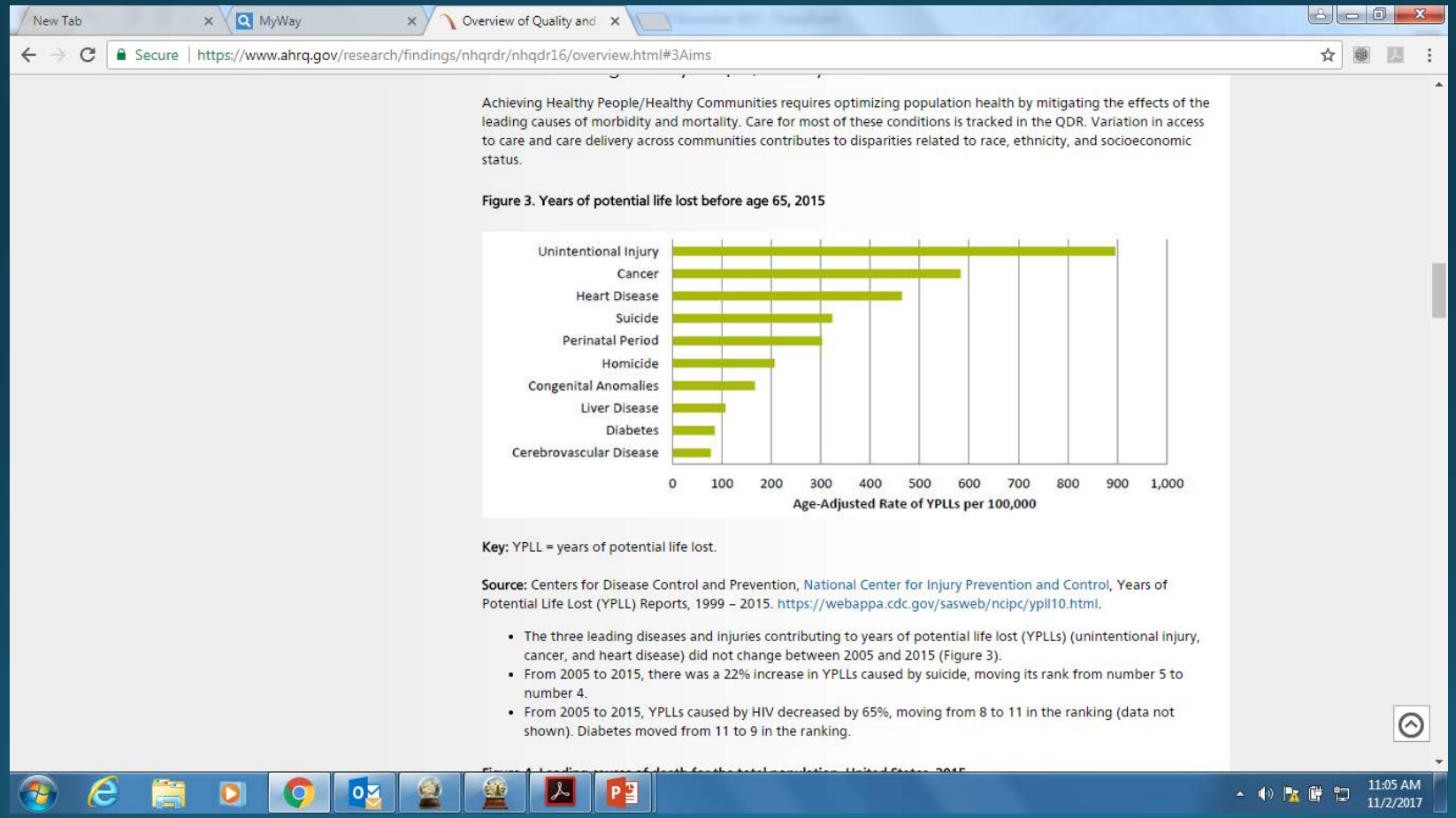
3 Aims Outlined in 2016 Report

- Aim 1: Achieving Better Care
  - Requires coordinating services across a complex health care system. The health care industry employs millions of workers providing billions of services each year. Improving care requires facilities and providers to work together to expand access, enhance quality, and reduce disparities.

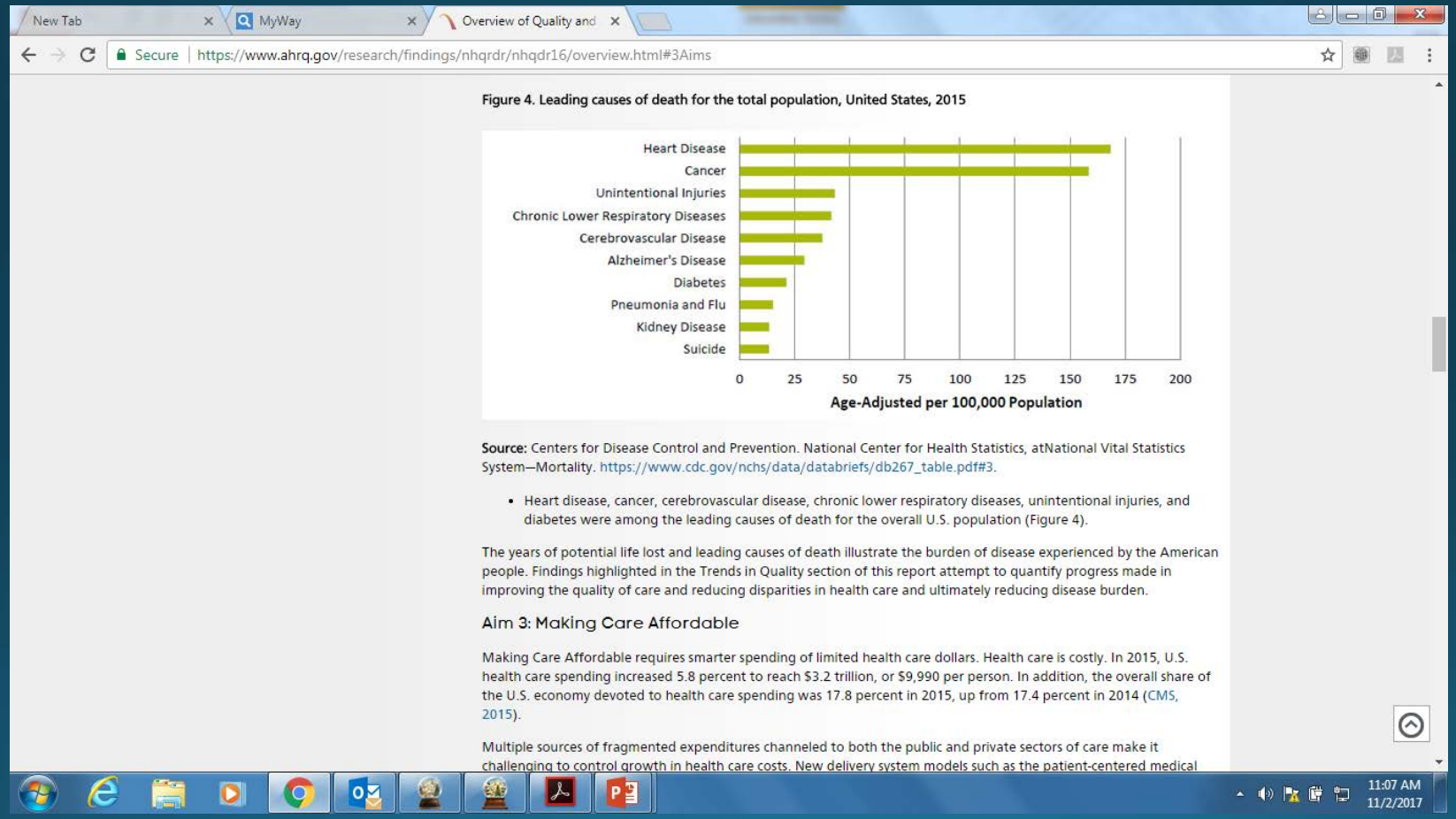
3 Aims Outlined in 2016 Report

- Aim 2: Achieving Healthy People/Healthy Communities
  - Achieving Healthy People/Healthy Communities requires optimizing population health by mitigating the effects of the leading causes of morbidity and mortality.
  - Variation in access to care and care delivery across communities contributes to disparities related to race, ethnicity, and socioeconomic status.

Years of Potential Life Lost before age 65, 2015



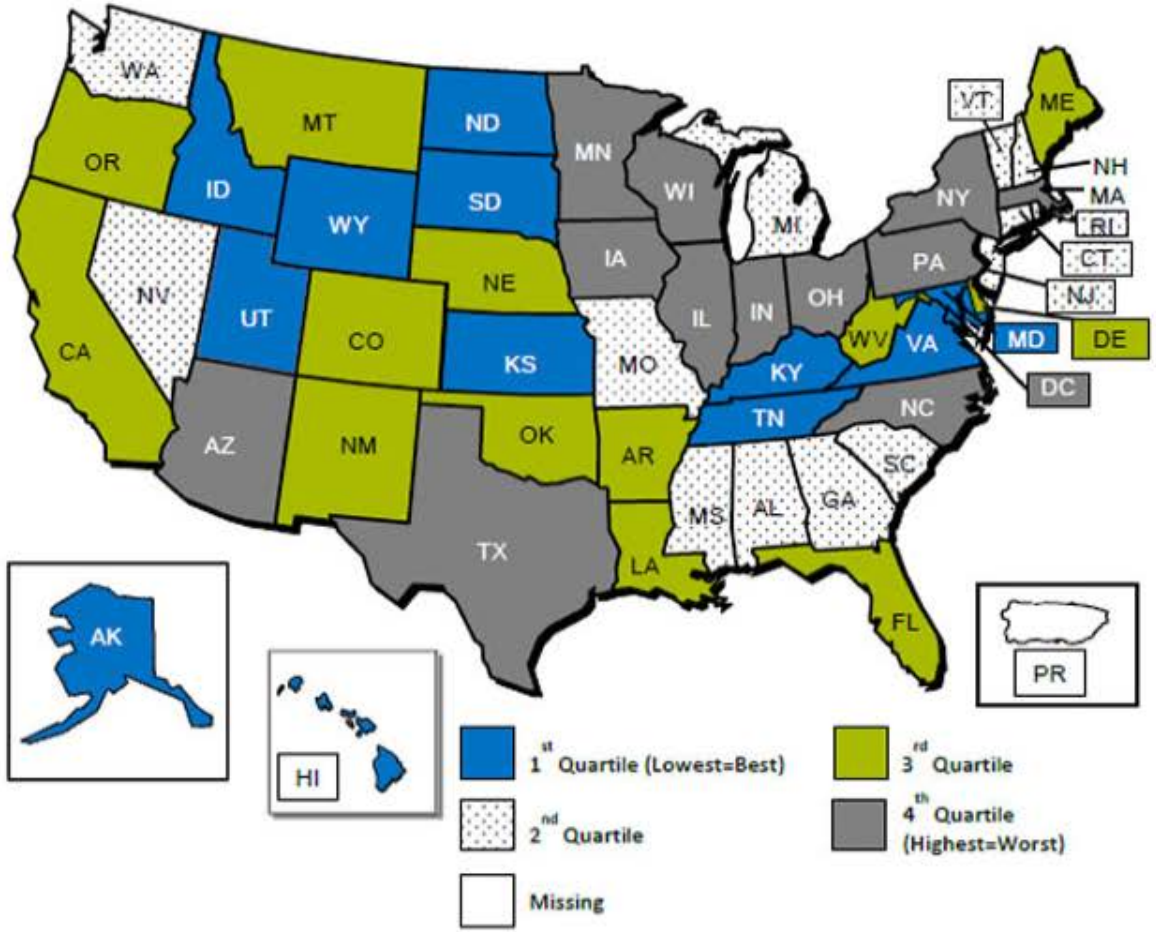
Leading Cause of Death in US, 2015



3 Aims Outlined in 2016 Report

- Aim 3: Making Care Affordable
- Requires smarter spending of limited health care dollars. Health care is costly. In 2015, U.S. health care spending increased 5.8 percent to reach $3.2 trillion, or $9,990 per person.
  - In addition, the overall share of the U.S. economy devoted to health care spending was 17.8 percent in 2015, up from 17.4 percent in 2014 (CMS, 2015).
- Multiple sources of fragmented expenditures channeled to both the public and private sectors of care make it challenging to control growth in health care costs.
  - New delivery system models such as the patient-centered medical home (PCMH) have been developed that coordinate care across sectors and may help ensure that money is spent efficiently.

Figure 8. Average differences in quality of care for Blacks, Hispanics, and Asians compared with Whites, by state, 2014-2015



Note: All measures in this report that had state-level data to assess racial/ethnic disparities were used, Separate quality scores were computed for Whites, Blacks, Hispanics, and Asians. For each state, the average of the Black, Hispanic, and Asian scores was divided by the White score. State-level AI/AN data were not available for analysis. States were ranked

Crossroads Examples

- 1980s: Birth Outcomes
  - Infant mortality
- Programs to improve birth outcomes
  - Increase expertise in neonatal care
  - Magic bullet: prenatal care
  - Disparities and social determinants
  - Web of Causation
- How to determine if program effective?
  - Evaluative research
  - Population-based focused

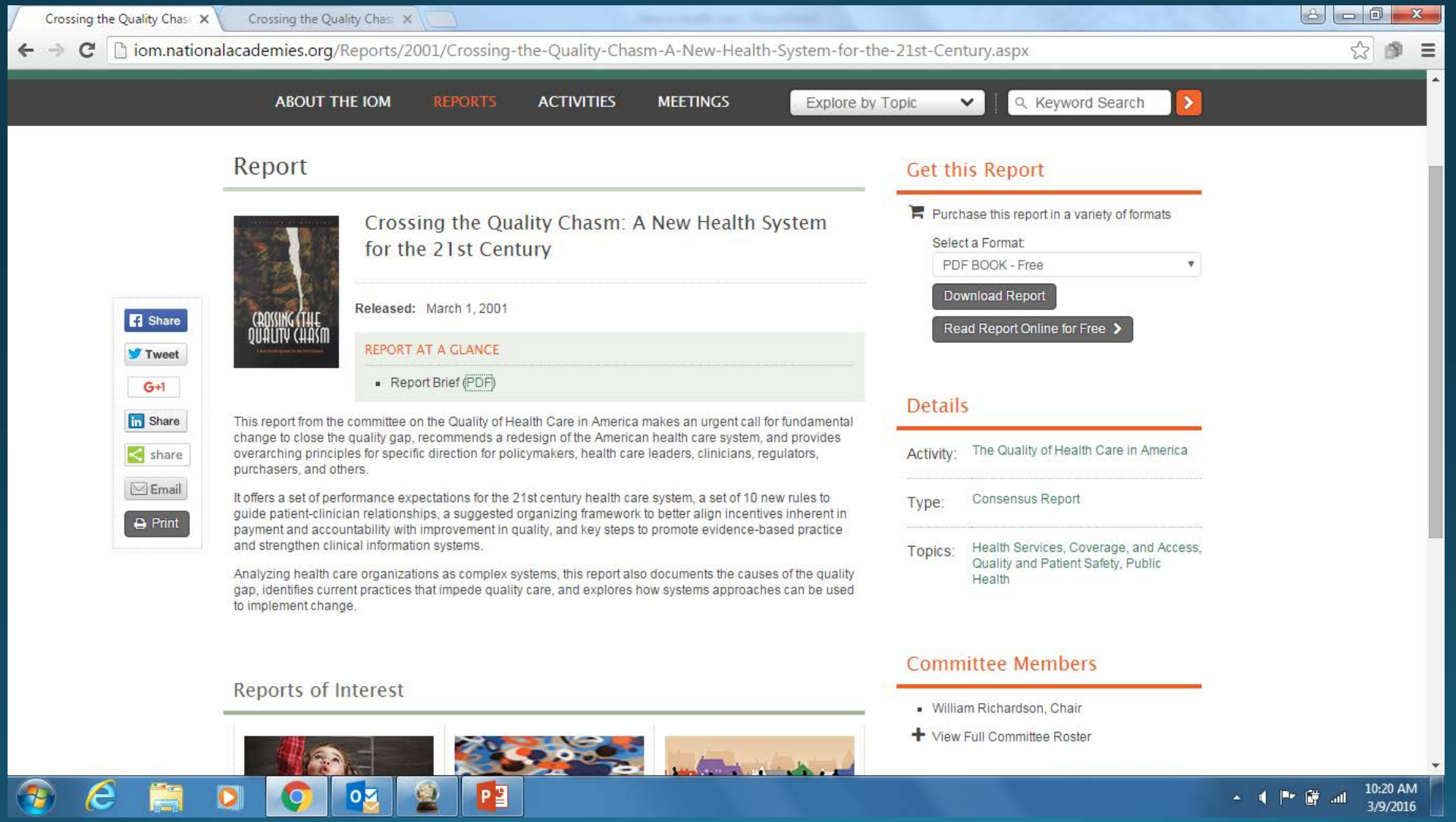
Crossroads Examples

- HIV Prevention
  - Knowledge does not equal behavioral change
    - Moving beyond the 'health fair' and providing a brochure
  - Stigma
  - Lack of trust
  - Strong role of activists
  - Specific, evidence-based interventions
  - Community planning groups
  - New systems of care

- Lessons learned for opioid epidemic


I'M LOOKING FOR HELP ON THIS, VIRTUAL TEAM...
Life in a Matrix
www.globalintegration.com
VIRTUAL TEAM MANAGER
Function
Country
Product Group
IT'S NOT IN MY P & L.
IT'S NOT IN MY OBJECTIVES.
I'D LIKE TO HELP, BUT...
Traditional silos getting in the way?

IOM Report (March, 2001)



Crossing the Quality Chasm:
A New Health System for the 21st Century

- Called for a new health care system
  - Current state of affairs
  - Factors contributing to the chasm

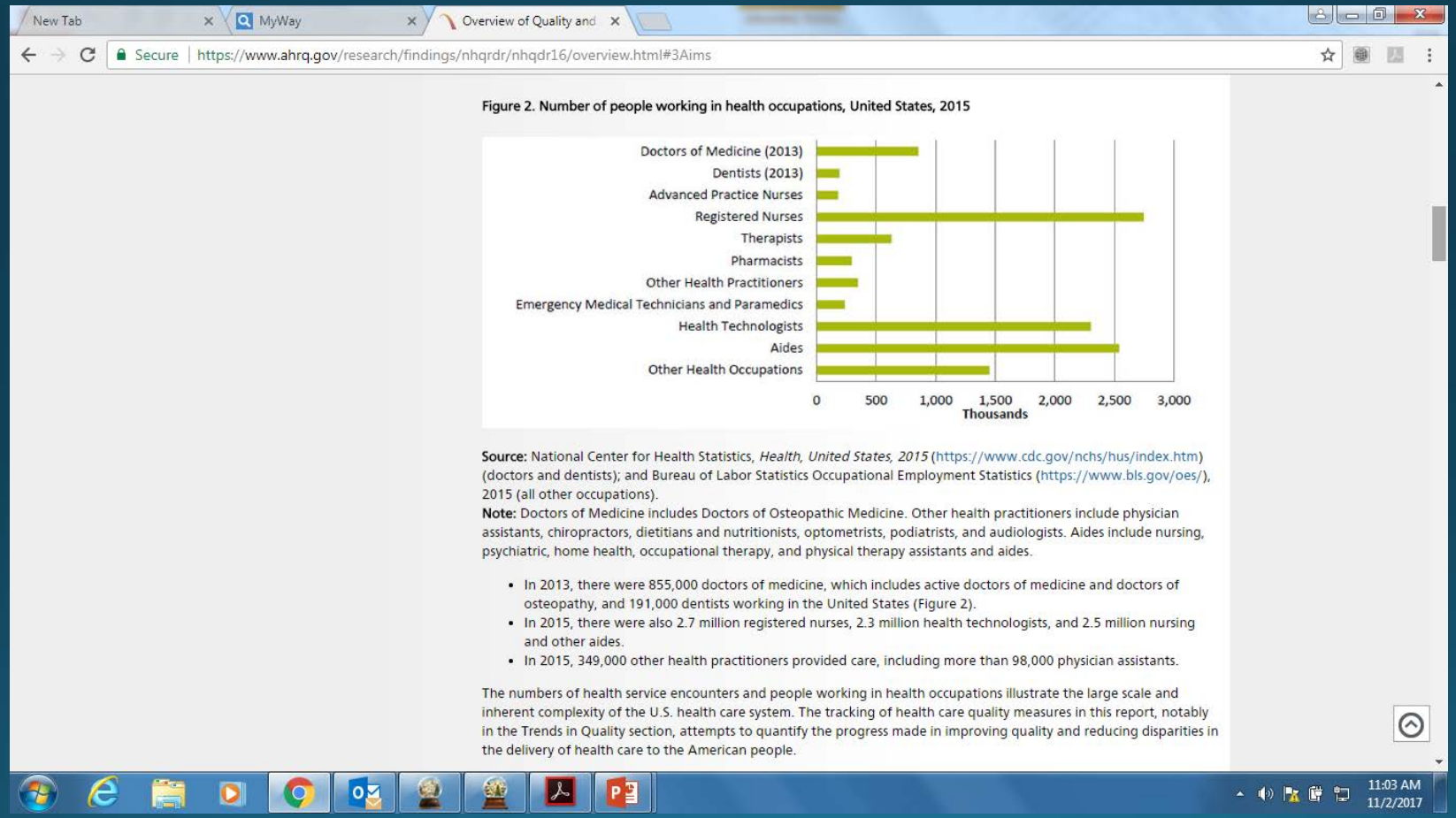
- "Yet health care organizations, hospitals, and physician groups typically operate as separate "silos", acting without the benefit of complete information about the patient's condition, medical history, services provided in other settings, or medications provided by other clinicians."

Summary: IOM Report

- Ten rules for redesign (or general principles): 5 of the 10
  - Care is based on continuous healing relationship
  - Knowledge is shared and information flows freely.
  - Decision making is evidence-based.
  - Safety is a system property.
  - Cooperation among clinicians is a priority.
- Recommendations to change the environment
  - Preparing the workforce
    - "placing more stress on teaching evidence-based practice and providing more opportunities for interdisciplinary training"


WELCOME
TO
CONCRETE

Highest Group in Health Care



Perfect Storm

Key Messages: Future of Nursing Report (2010)

- Nurses should practice to the full extent of their education and training.
- Achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
- Be full partners, with physicians and other health care professionals, in redesigning health care in the United States.
- Effective workforce planning and policy making require better data collection and an improved information infrastructure.

Content Specific to Nursing Education

- Need highly-educated nurses with new competencies
  - Leadership, health policy, system improvement, research and evidence-based practice, teamwork and collaboration
  - Specific content in community/public health and geriatrics
  - Master technologic tools and information management systems
- Improved education system
  - Include care coordination and transitions
  - Negotiation and navigation skills
  - New competencies vs. tasks

Content Specific to Nursing Education

- Increase proportion of nurses with BSN and doctorates
  - Increased access to seamless education
- Lifelong learning commitment
  - Bridge programs and seamless educational pathways
- Enough nurses with the right skills
  - Need to decrease high turnover rates in hospitals and nursing homes
    - Residency programs

What else?

- Delve into major reasons nurses are leaving the bedside and address these issues
  - Nurse patient staffing ratios
  - System of care within institutions

- Prepare nurses to have an equal seat at the tables…..
  - Interdisciplinary research table
  - Interdisciplinary policy table
  - Interdisciplinary practice table

  …….through interdisciplinary education


THE
ELEPHANT
IN THE ROOM


AAUGH!


QUICKSAND

Acknowledge, Respect, and Commit

ARC Framework

- **A**cknowledge the diverse skill sets within nursing
- **R**espect the skill sets we each bring to the table
- **C**ommit to work toward a common goal
  - While supporting each member of the team

Because……..

- Are all the health issues facing us resolved?

- *Everyone* is needed to address the issues

Locally……just a few examples

- Infant mortality rates
- Opioid epidemic
- Environmental lead exposure
- Pockets of poverty
- Profound health disparities

On a pragmatic level, there is enough work for everyone

Using the Rankings Data

Communities Using the Rankings Data

Exploring the Data

Making Use of Your Snapshot

Digging Deeper

Broadening Your View

Visualizing the Data

Finding More Data

Exploring the Data

We provide a variety of ways of exploring, comparing, and visualizing the *Rankings* and all of the underlying data. Enter the name of a county into the Search box to go directly to a County Snapshot. In each County Snapshot, you can see the county's ranks for Health Outcomes and Health Factors. And, for each measure, you can see the county's value, its error margins (if applicable), the state average, and the Top U.S. Performers.

County Snapshot

- **County value** We report values for the 35 measures we use to calculate ranks. For some measures in certain counties, data are suppressed to protect privacy when the sample size or number of events is too small.
- **Trends** We include trend graphs for 12 measures (click on the graph icon in the Trend column of your County Snapshot). The color of the line in the icon shows the direction of the measures in your county:

County Health Rankings & Roadmaps

Building a Culture of Health, County by County

A Robert Wood Johnson Foundation program

2017 *County Health Rankings*

Ohio

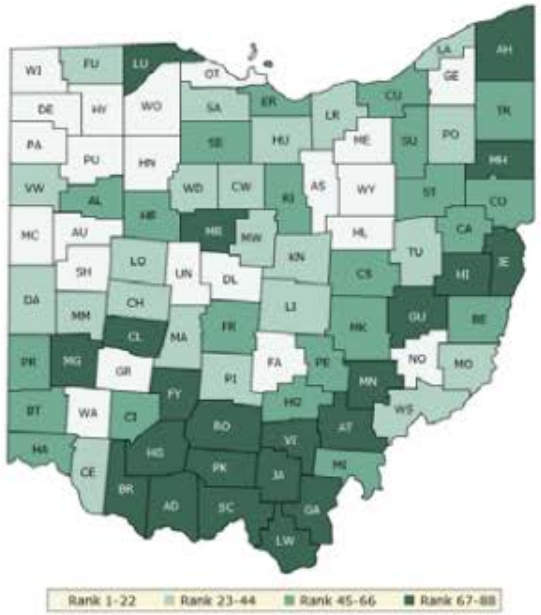
2017 *COUNTY HEALTH RANKINGS*: MEASURES AND NATIONAL/STATE RESULTS

Measure	Description	US Median	State Overall	State Minimum	State Maximum
HEALTH OUTCOMES					
Premature death	Years of potential life lost before age 75 per 100,000 population	7,700	7,600	4,100	12,100
Poor or fair health	% of adults reporting fair or poor health	16%	15%	10%	22%
Poor physical health days	Average # of physically unhealthy days reported in past 30 days	3.8	3.7	2.7	5.1
Poor mental health days	Average # of mentally unhealthy days reported in past 30 days	3.8	4.0	3.2	4.7
Low birthweight	% of live births with low birthweight (< 2500 grams)	8%	9%	5%	10%
HEALTH FACTORS					
HEALTH BEHAVIORS					
Adult smoking	% of adults who are current smokers	17%	22%	14%	25%
Adult obesity	% of adults that report a BMI ≥ 30	31%	31%	27%	39%
Food environment index	Index of factors that contribute to a healthy food environment, (0-10)	7.3	7.0	5.3	8.9
Physical inactivity	% of adults aged 20 and over reporting no leisure-time physical activity	26%	25%	18%	36%
Access to exercise opportunities	% of population with adequate access to locations for physical activity	62%	83%	26%	96%
Excessive drinking	% of adults reporting binge or heavy drinking	17%	19%	15%	23%
Alcohol-impaired driving deaths	% of driving deaths with alcohol involvement	30%	34%	12%	56%
Sexually transmitted infections	# of newly diagnosed chlamydia cases per 100,000 population	294.8	474.1	57.3	811.2
Teen births	# of births per 1,000 female population ages 15-19	38	32	9	59
CLINICAL CARE					
Uninsured	% of population under age 65 without health insurance	14%	10%	5%	23%
Primary care physicians	Ratio of population to primary care physicians	2,030:1	1,300:1	14,840:1	750:1
Dentists	Ratio of population to dentists	2,570:1	1,690:1	8,770:1	1,010:1
Mental health providers	Ratio of population to mental health providers	1,105:1	630:1	14,640:1	380:1
Preventable hospital stays	# of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees	56	60	40	120
Diabetes monitoring	% of diabetic Medicare enrollees ages 65-75 that receive HbA1c monitoring	86%	85%	74%	93%
Mammography screening	% of female Medicare enrollees ages 67-69 that receive mammography screening	61%	61%	48%	69%
SOCIAL AND ECONOMIC FACTORS					
High school graduation	% of ninth-grade cohort that graduates in four years	88%	81%	33%	98%

HOW DO COUNTIES RANK FOR HEALTH OUTCOMES?

The green map below shows the distribution of Ohio's **health outcomes**, based on an equal weighting of length and quality of life.

Lighter shades indicate better performance in the respective summary rankings. Detailed information on the underlying measures is available at **countyhealthrankings.org**.

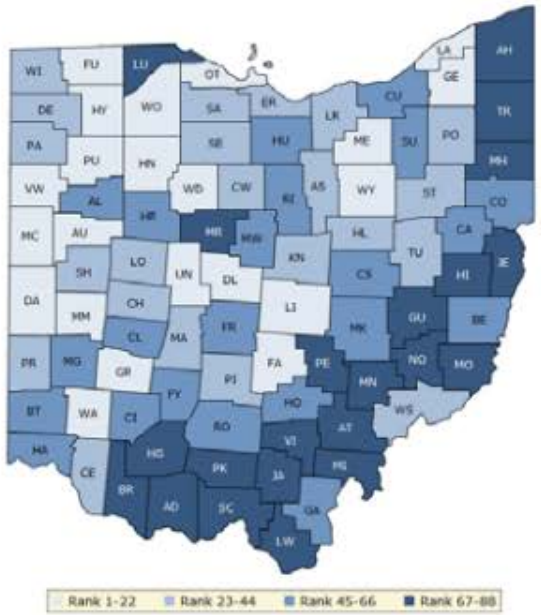


County	Rank	County	Rank	County	Rank	County	Rank
Adams	87	Fairfield	15	Licking	31	Portage	27
Allen	46	Fayette	76	Logan	43	Preble	51
Ashland	19	Franklin	49	Lorain	41	Putnam	3
Ashtabula	75	Fulton	29	Lucas	69	Richland	54
Athens	72	Gallia	85	Madison	25	Ross	81
Auglaize	9	Geauga	2	Mahoning	71	Sandusky	33
Belmont	56	Greene	13	Marion	68	Scioto	86

HOW DO COUNTIES RANK FOR HEALTH FACTORS?

The blue map displays Ohio's summary ranks for **health factors**, based on weighted scores for health behaviors, clinical care, social and economic factors, and the physical environment.

Lighter shades indicate better performance in the respective summary rankings. Detailed information on the underlying measures is available at **countyhealthrankings.org**



County	Rank	County	Rank	County	Rank	County	Rank
Adams	88	Fairfield	14	Licking	20	Portage	25
Allen	53	Fayette	64	Logan	27	Preble	37
Ashland	29	Franklin	49	Lorain	43	Putnam	5
Ashtabula	76	Fulton	18	Lucas	78	Richland	57
Athens	68	Gallia	66	Madison	28	Ross	60
Auglaize	9	Geauga	3	Mahoning	67	Sandusky	32
Belmont	62	Greene	15	Marion	85	Scioto	87
Brown	72	Guernsey	74	Medina	4	Seneca	35

OHIO 2017 Select another state

Select a Ranking:

HEALTH OUTCOMES
OVERALL RANK

Rank	County
1	Delaware (DL)
2	Geauga (GE)
3	Putnam (PU)
4	Union (UN)
5	Medina (ME)
6	Warren (WA)
7	Holmes (HL)
8	Wood (WO)
9	Auglaize (AU)
10	Mercer (MC)
11	Henry (HY)
12	Wayne (WY)
13	Greene (GR)
14	Hancock (HN)

Cuyahoga (CU)

Show areas to explore Show areas of strength

County Demographics +

	Cuyahoga County	Trend	Error Margin	Top U.S. Performers	Ohio	Rank (of 88)
Health Outcomes						**65**
Length of Life						47
Premature death	7,800		7,600-8,000	5,200	7,600	
Quality of Life						75
Poor or fair health	17%		17-17%	12%	15%	
Poor physical health days	3.8		3.6-3.9	3.0	3.7	
Poor mental health days	4.0		3.9-4.1	3.0	4.0	
Low birthweight	10%		10-11%	6%	9%	

Additional Health Outcomes (not included in overall ranking) +

Rank	County
14	Hancock (HN)
15	Fairfield (FA)
16	Ottawa (OT)
17	Paulding (PA)
18	Williams (WI)
19	Ashland (AS)
20	Defiance (DE)
21	Shelby (SH)
22	Noble (NO)
23	Lake (LA)
24	Van Wert (VW)
25	Madison (MA)
26	Miami (MM)
27	Portage (PO)
28	Wyandot (WD)
29	Fulton (FU)
30	Morrow (MW)
31	Licking (LI)
32	Darke (DA)
33	Sandusky (SA)
34	Knox (KN)
35	Champaign (CH)
36	Tuscarawas (TU)
37	Washington (WS)

	Cuyahoga County	Trend	Error Margin	Top U.S. Performers	Ohio	Rank (of 88)
Health Factors						**56**
Health Behaviors						**48**
Adult smoking	19%		18-19%	14%	22%	
Adult obesity	30%		28-32%	26%	31%	
Food environment index	6.5			8.4	7.0	
Physical inactivity	24%		23-26%	19%	25%	
Access to exercise opportunities	96%			91%	83%	
Excessive drinking	18%		18-19%	12%	19%	
Alcohol-impaired driving deaths	45%		43-48%	13%	34%	
Sexually transmitted infections	718.2			145.5	474.1	
Teen births	35		35-36	17	32	
Additional Health Behaviors (not included in overall ranking) +						
Clinical Care						**5**
Uninsured	10%		9-11%	8%	10%	
Primary care physicians	890:1			1,040:1	1,300:1	
Dentists	1,010:1			1,320:1	1,690:1	
Mental health providers	400:1			360:1	630:1	

Rank	County
43	Logan (LO)
44	Crawford (CW)
45	Stark (ST)
46	Allen (AL)
47	Carroll (CA)
48	Butler (BT)
49	Franklin (FR)
50	Summit (SU)
51	Preble (PR)
52	Perry (PE)
53	Seneca (SE)
54	Richland (RI)
55	Columbiana (CO)
56	Belmont (BE)
57	Erie (ER)
58	Hamilton (HA)
59	Hocking (HO)
60	Coshocton (CS)
61	Trumbull (TR)
62	Clinton (CI)
63	Muskingum (MK)
64	Hardin (HR)
65	Cuyahoga (CU)

	Cuyahoga County	Trend	Error Margin	Top U.S. Performers	Ohio	Rank (of 88)
Social & Economic Factors						**76**
High school graduation	75%			95%	81%	
Some college	68%		67-69%	72%	64%	
Unemployment	5.0%			3.3%	4.9%	
Children in poverty	26%		24-29%	12%	21%	
Income inequality	5.6		5.5-5.7	3.7	4.8	
Children in single-parent households	45%		43-46%	21%	36%	
Social associations	9.2			22.1	11.3	
Violent crime	589			62	290	
Injury deaths	68		66-70	53	70	
Additional Social & Economic Factors (not included in overall ranking) +						
Physical Environment						**85**
Air pollution - particulate matter	12.9			6.7	11.3	
Drinking water violations	No					
Severe housing problems	19%		18-19%	9%	15%	
Driving alone to work	80%		80-81%	72%	83%	

Closing Thoughts: Opportunities

- Bridge interdisciplinary education, research, practice, and policy
  - Education cannot work alone – nor can academic disciplines work alone
  - Revamp systems of care in partnership
- Establish and maintain evidence-based processes to support positive outcomes across the continuum of care
- Incorporate evaluation into endeavors
  - Process and outcome evaluations
- While shifting perspective to population health, maintain balance with individual and caregivers

Creating a better world requires teamwork, partnerships, and collaboration, as we need an entire army of companies to work together to build a better world within the next few decades. This means corporations must embrace the benefits of cooperating with one another.

Simon Mainwaring