

Psychology's Paradigm Shift

*Can Psychology Successfully Transition from a
Mental Health to a Health Profession?*

Suzanne Bennett Johnson
2013 APA Past-President
sbjohnson@apa.org
www.apa.org/sbjohnson



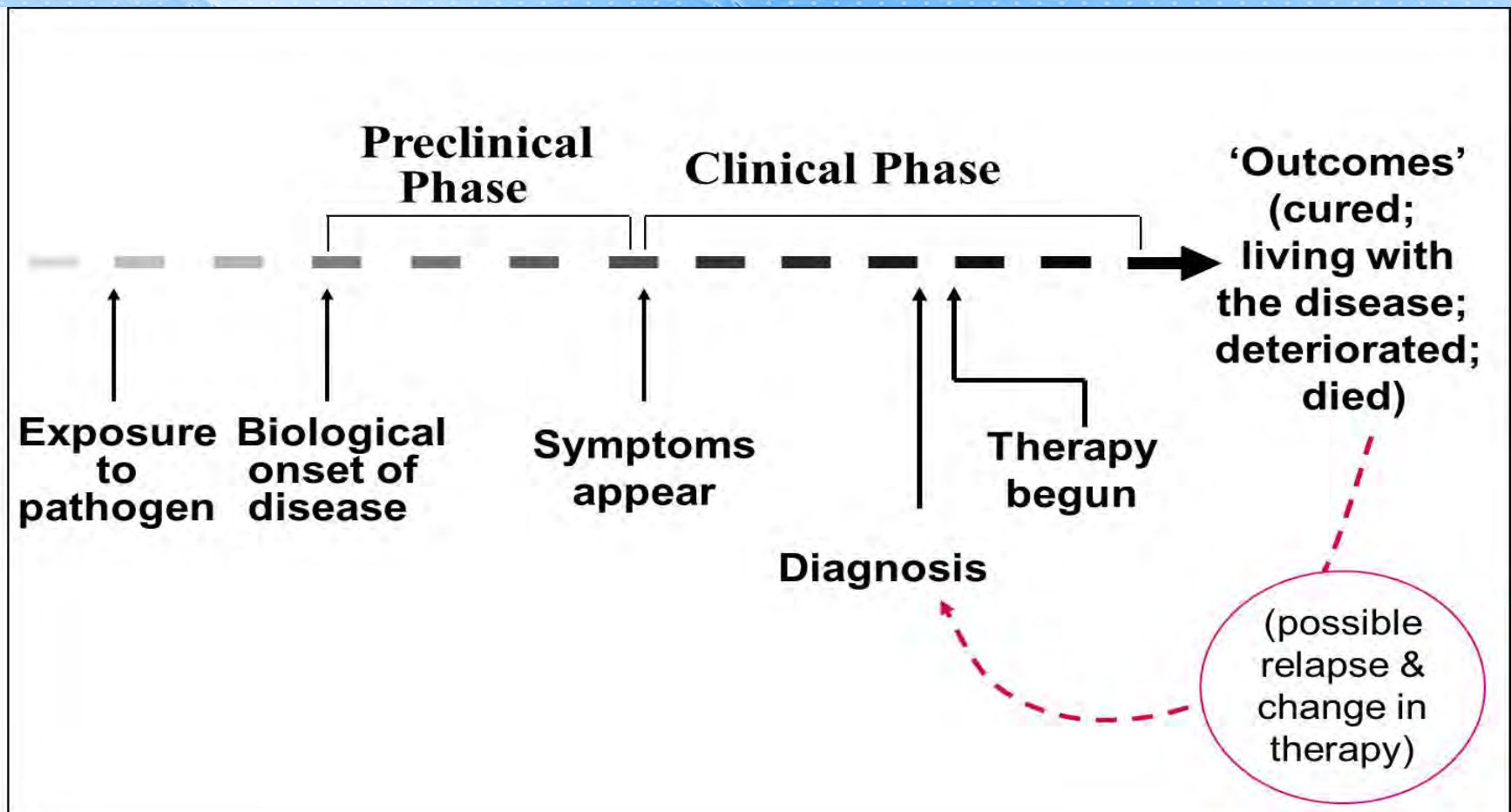
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Presentation Overview

- The biomedical model and its legacy
 - Increased life expectancy
 - Mind-body dualism
 - Rise of the pharmaceutical industry
 - Rise in biomedical research
- Limitations of the biomedical model
 - Changing nature of disease
 - Rising health care cost
 - Increasing recognition of role of behavior in health
 - Failure to adequately address mental health
- A paradigm shift: biomedical to the biopsychosocial model
 - Implications for health care & professional education,
 - Implications for psychology



Biomedical Model: The Basis of Western Medicine



Biomedical Model

- Focus: Disease
- Reductionistic: Disease is defined by a biologic defect
- Exclusionary: Problems not explained by a biologic defect are excluded
- Mind-body dualism
- Biologic assays and biologic interventions



Success of the Biomedical Model

- Germ theory of disease lead to
 - Sanitation
 - Antibiotics and rise of the pharmaceutical industry
 - Decline in infectious disease
 - Increased life expectancy
- Reductionism lead to
 - Identification and treatment of underlying biologic defect (e.g. insulin replacement in type 1 diabetes)
 - Mapping the human genome



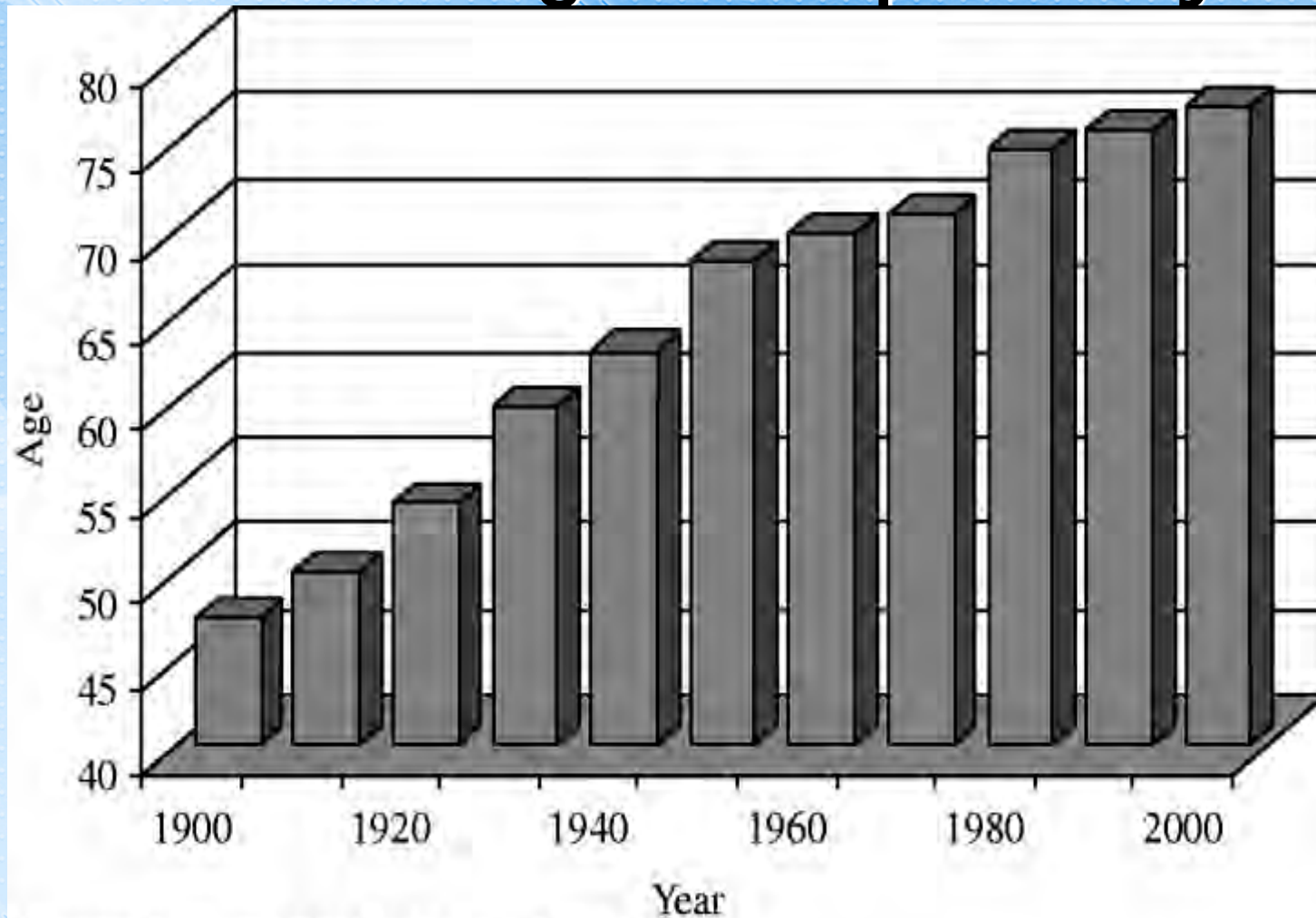


Success of the Biomedical Model: Elimination of Infectious Disease as the Leading Cause of Death in the United States

cause of death	1900	2000
1	Tuberculosis	Heart Disease
2	Pneumonia/influenza	Cancer
3	Diarrheal diseases	Stroke
4	Heart disease	COPD
5	Liver disease	Injuries
6	Injuries	Diabetes
7	Stroke	Pneumonia/influenza
8	Cancer	Alzheimer's
9	Bronchitis	Nephritis
10	Diphtheria	Septicemia



Success of the Biomedical Model: Increasing Life Expectancy



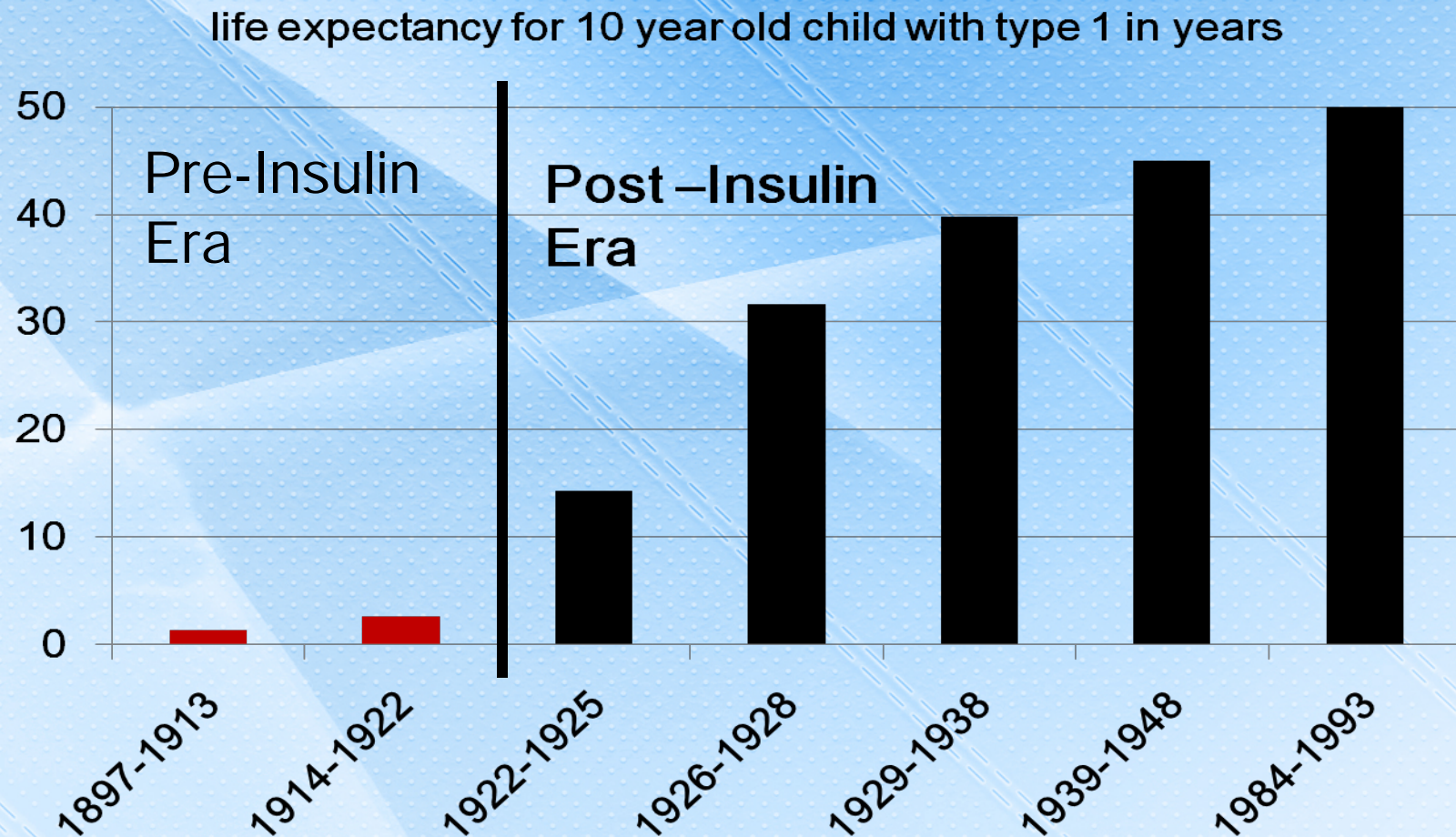
Source: Kurian (2004, Tables 4-5, p. 71)



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Success of the Biomedical Model: Type 1 Diabetes

Life Expectancy in the Pre- and Post-Insulin Era



Biomedical Model's Legacy: Reductionistic, Exclusionary, Dualistic Health Care

- Disease is defined as a derangement in an underlying physical mechanism
- Anything not caused by a physical derangement, is excluded
- Mental and physical health are treated separately; unless a behavioral disorder is the consequence of an underlying physical derangement, it is not a disease



Biomedical Model's Legacy: Reductionistic, Exclusionary, Dualistic Health Care

- Priority given to diagnosis and treatment of disease
 - Physical complaints are given greater value
 - Resources are devoted to biologic assays and biologic interventions
 - Greater access provided to those with diseases
 - Multiple tests and visits to specialists may occur in search of a disease
 - Prevention a lower priority than treatment



Biomedical Model's Legacy: Reductionistic, Exclusionary, Dualistic Health Care

- Mental or behavioral problems are excluded or devalued
 - Mental or behavioral problems are not considered "real"
 - Patients feel devalued or "not believed"
 - Mental health services are "carved out"
 - Patients may feel stigmatized
 - Fewer resources devoted to these services
 - Poorer access with higher co-pays
 - Many with mental or behavioral problems go untreated



Biomedical Model's Legacy: US Health Expenditures Devoted Primarily to Physical Health

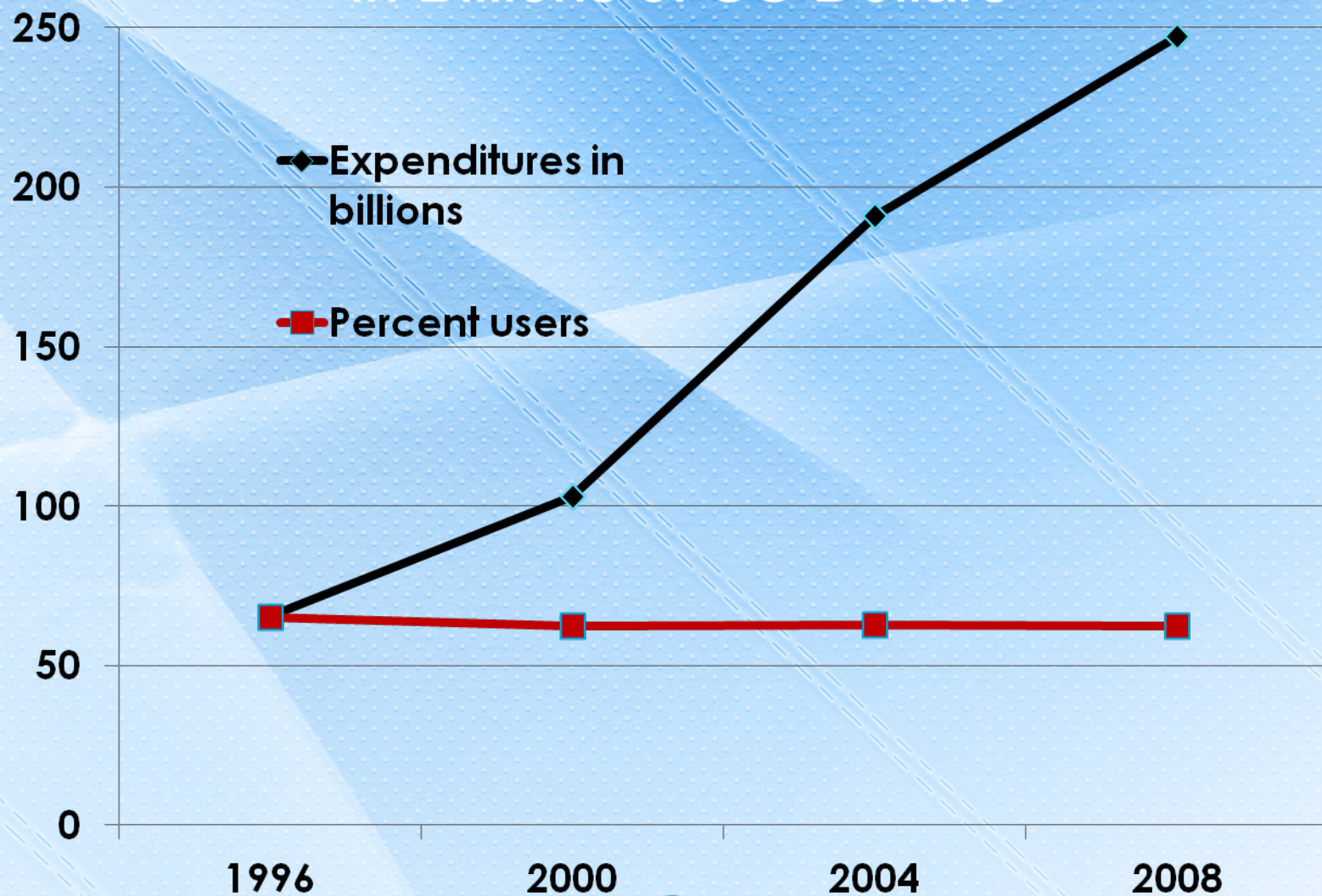
Mental Health Expenditures as a Percent of All Health Care Expenditures (2003)



All Health = \$1,614 billion in 2003
MH = \$100 billion in 2003

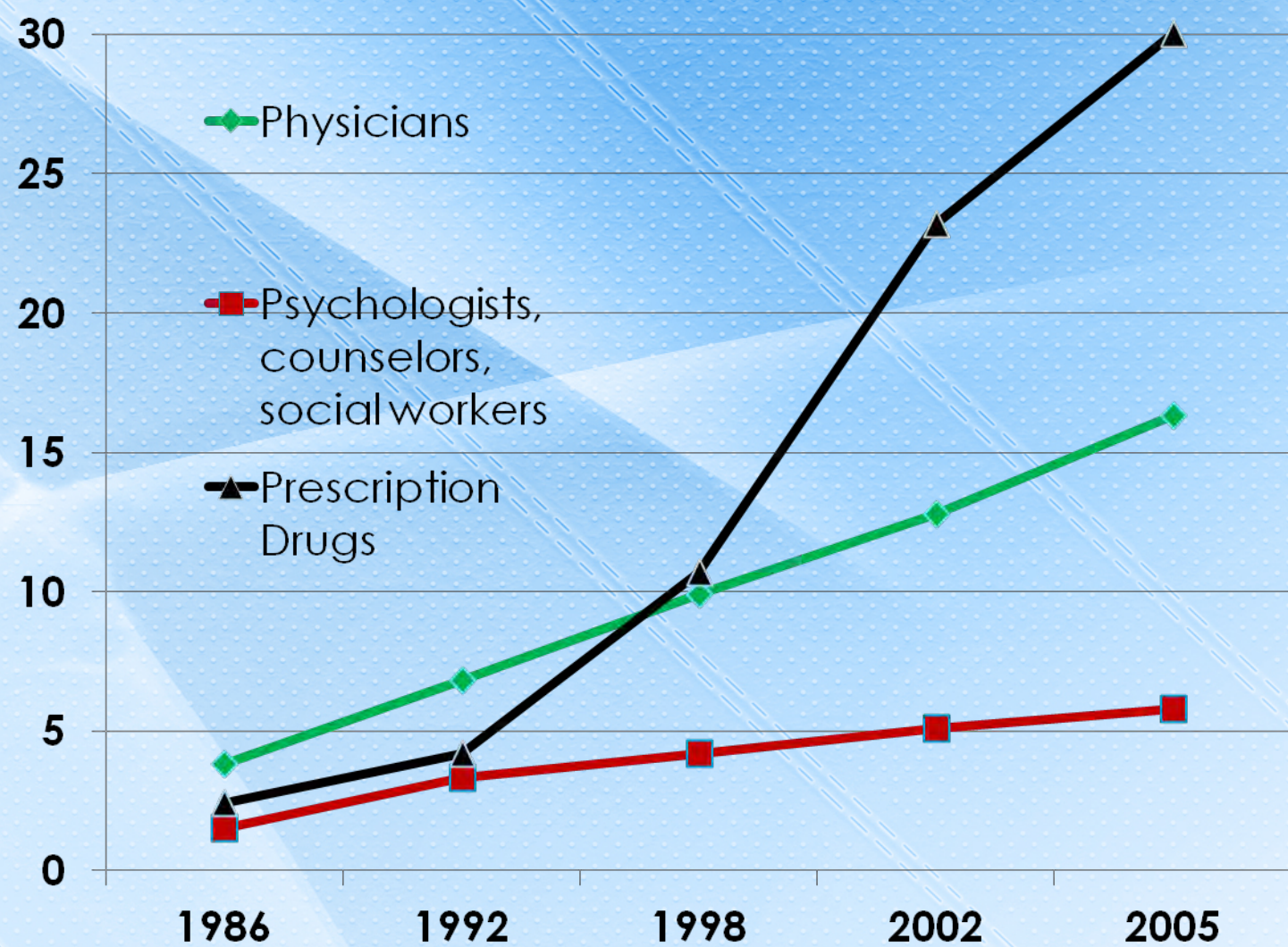
Data courtesy of SAMHSA

Biomedical Model's Legacy: Percent of US Population Using Prescription Drugs and Expenditures in Billions of US Dollars





Biomedical Model's Legacy: Mental Health Expenditures in Billions of US Dollars





Biomedical Model's Legacy: Dualistic Training Programs

- Mental health and physical health providers are trained separately
- Within this system, psychologists - experts on behavior, cognition and emotion – are “mental health” and physicians are the “physical health” providers
- Neither is trained in inter-professional practice



Despite the success of the biomedical model, by the end of the 20th century, medicine was on the verge of a paradigm shift as a result of:

- Changing nature of disease
- Rising health care costs
- Increasing recognition of role of patient and provider behavior
- Failure to adequately address mental health

This in turn lead to the emergence of the biopsychosocial model

Leading Causes of Death in the United States

cause of death	1900	2000
1	Tuberculosis	Heart Disease
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5	Liver disease	Injuries
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7	Stroke	Pneumonia/influenza
8	Cancer	Alzheimer's
9	Bronchitis	Nephritis
10	Diphtheria	Septicemia





Changing Nature of Disease in the US

- 7 of 10 US deaths are the result of chronic disease
- In 2005, 133 million Americans – almost 1 in 2 adults – had at least one chronic illness
- One quarter of those with a chronic illness have a major activity limitation
- Chronic diseases account for 75% - \$1.9 trillion- of the nation's healthcare costs

<http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf>

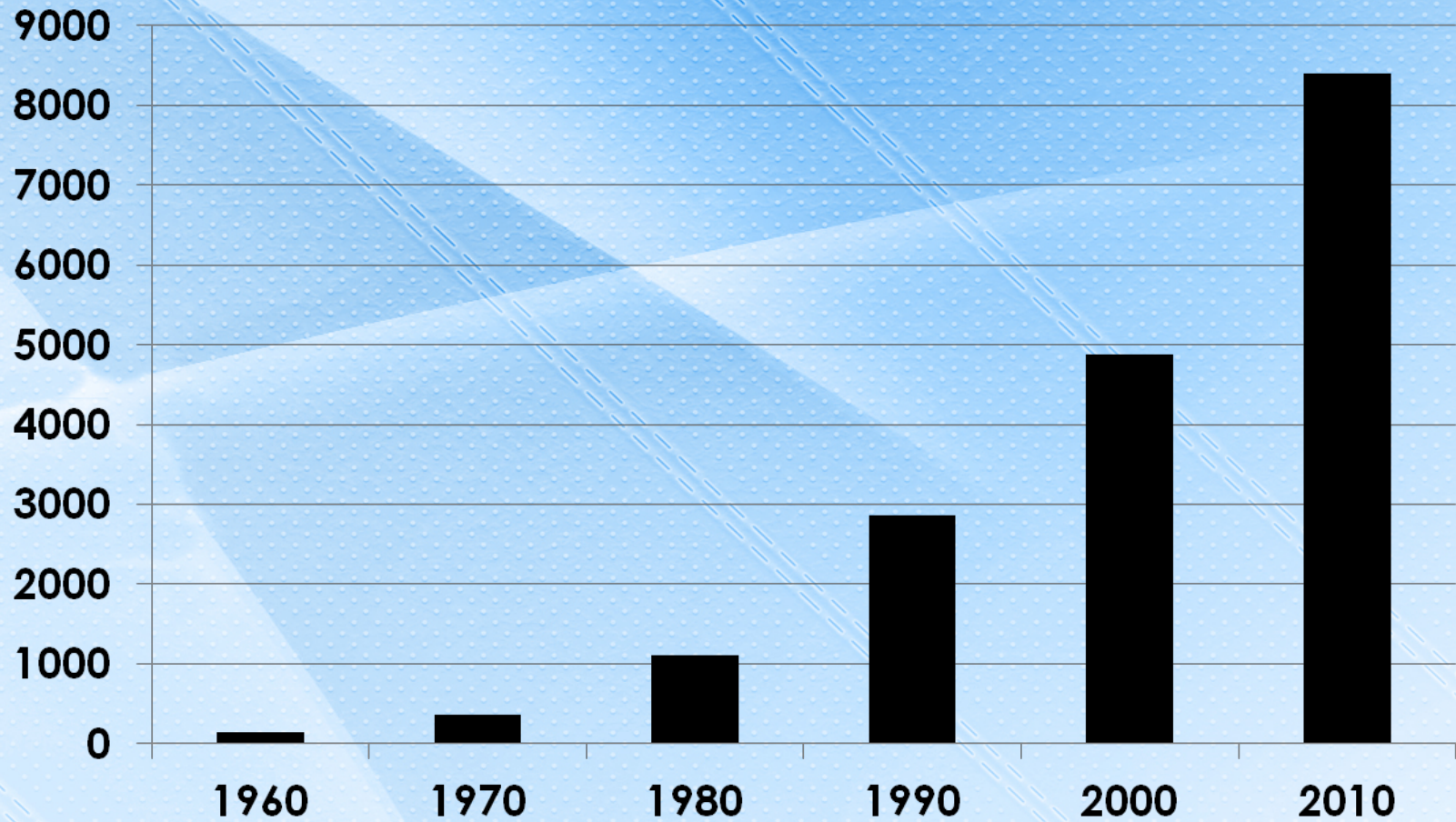
<http://www.cms.hhs.gov/NationalHealthExpendData/downloads/tables.pdf>



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Rising Health Costs

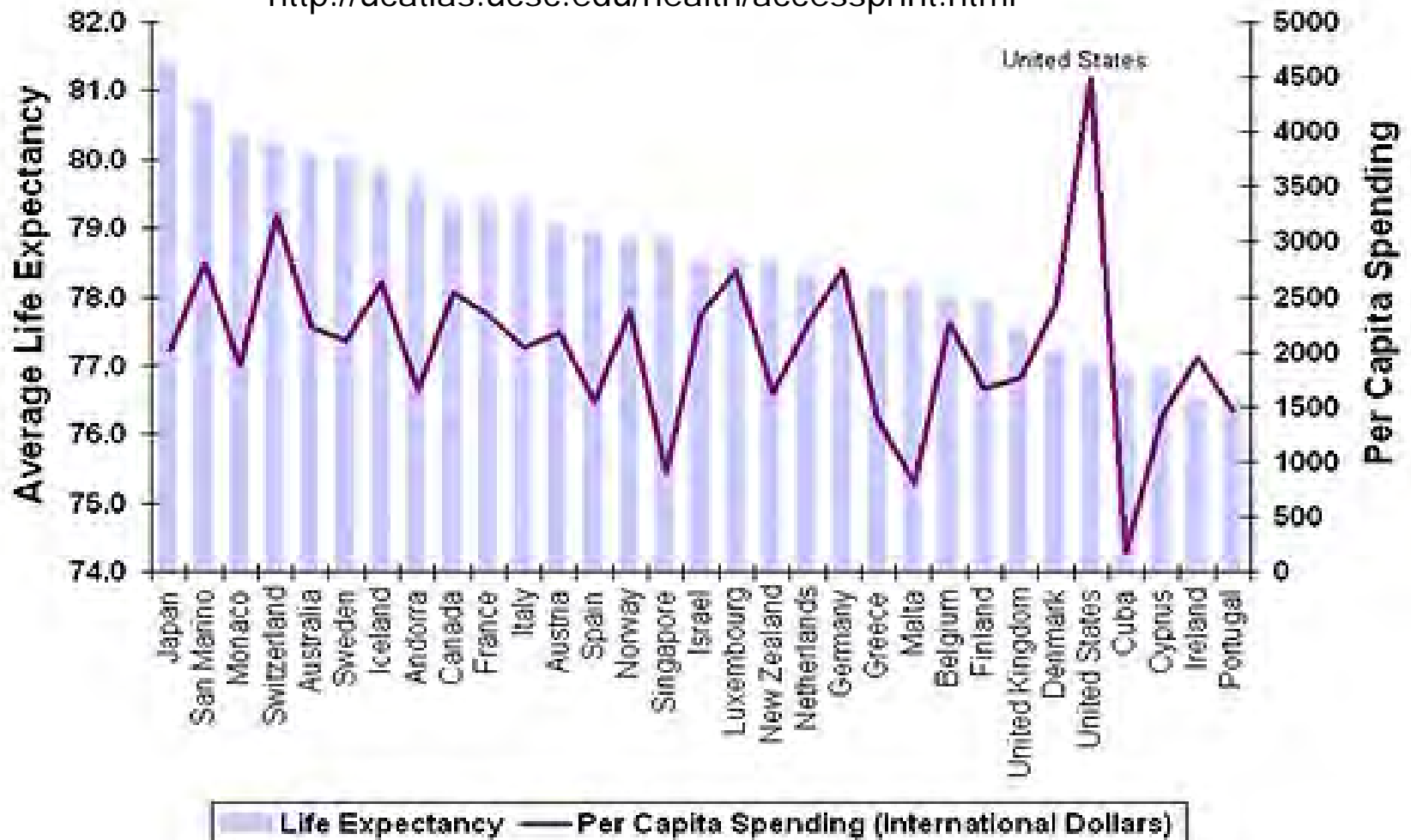
US Dollars Spent Per Person on Health Care by Year



US Leads the World in Health Care Costs with Lower Life Expectancy

The Cost of a Long Life

<http://ucatlas.ucsc.edu/health/accessprint.html>




Increasing Recognition of the Role of Behavior

Rank	Cause of Death by Disease (2000)	Actual Cause of Death (2000)
1	Heart Disease	Tobacco
2	Cancer	Diet/Activity
3	Stroke	Alcohol
4	Pulmonary Disease	Microbial Agents
5	Accidents	Toxic Agents
6	Diabetes	Motor Vehicles
7	Pneumonia/Influenza	Firearms
8	Alzheimer's	Sexual Behavior
9	Kidney disease	Illicit Drug Use



Increasing Recognition of the Role of Behavior: Determinants of Health

Access to Care (10%)
Genetics (20%)
Environment (20%)
Health Behaviors (50%)



Increasing Recognition of Role of Behavior: Reports of the US Surgeon General

www.surgeongeneral.gov/sgooffice.htm


- 1964 -2012 there have been 37 reports on Smoking and Health
- 1972 Impact of Television Violence
- 1979 Healthy People
- 1988 Report on Nutrition and Health
- 1992 HIV Infection and AIDS
- 1996 Physical Activity and Health
- 1999 and 2001 Mental Health
- 2001 Youth Violence
- 2001 Call to Action to Prevent and Decrease Overweight and Obesity



Increasing Recognition of the Role of Behavior: Healthy People Reports

- 1979 Surgeon General's Report, Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention
- Healthy People 1990: Promoting Health/Preventing Disease: Objectives for the Nation
- Healthy People 2000: National Health Promotion and Disease Prevention Objectives
- Healthy People 2010: Objectives for Improving Health
- Healthy People 2020 focus: Four overarching objectives - health status; quality of life, social determinants of health, and disparities





Increasing Recognition of Role of Behavior: Institute of Medicine (IOM) Reports

- **Health and Behavior: Frontiers of Biobehavioral Research (1982)**
- **Promoting Health: Intervention Strategies from Social and Behavioral Research (2000)**
- **From Neurons to Neighborhoods: The Science of Early Childhood Development (2000)**
- **Health and Behavior: The Interplay of Biological, Behavioral, and Societal Influences (2001)**






Increasing Recognition of Role of Behavior

- Disease etiology
- Disease prevention
- Disease management
 - ~ 30% of patients fail to adhere to short-term regimens
 - ~ 50% of patients fail to adhere to long-term regimens
 - ~ 70% of patients fail to comply when asymptomatic
 - ~ 75% of patients have difficulty making lifestyle changes
 - Chronic disease requires long-term often complex medical regimens; many require lifestyle changes
 - Poor medical regimen adherence associated with increased health care costs

Clinical Therapeutics, 2000, 22:858-871; Johnson, Psychosocial clinical guidelines for the care of patients with diabetes, 2012



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Increasing Recognition of the Role of Behavior: Provider Behavior is Important Too!

- Providers often fail to communicate successfully with their patients
- Doctors make mistakes!
 - Institute of Medicine report: To Err is Human: Building a Safer Health Care System (1999): medical errors are the 8th leading cause of death in the US
 - >50% of medical recommendations are inappropriate

<http://www.iom.edu/Reports/1999/To-Err-is-Human-Building-A-Safer-Health-System.aspx>; [Myers & Midence \(1998\). Adherence to Treatment in Medical Conditions](#)



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Increasing Recognition of the Role of Provider Behavior

- Evidence Based Medicine
 - Medical practice is based on science
- Practice Guidelines
 - Professional, national, governmental agencies
- Medical Informatics
 - a science addressing how best to use information to improve health care; National Library of Medicine is the government leader (www.nlm.nih.gov)
- Patient Safety Initiatives
 - Electronic medical record
 - Decision support systems



Failure to Adequately Address Mental Health

- Mental health concerns are common
 - 26% of US adults have a mental disorder
 - 6% have a serious mental disorder
- Mental disorders are the leading cause of disability in the U.S.

<http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml>



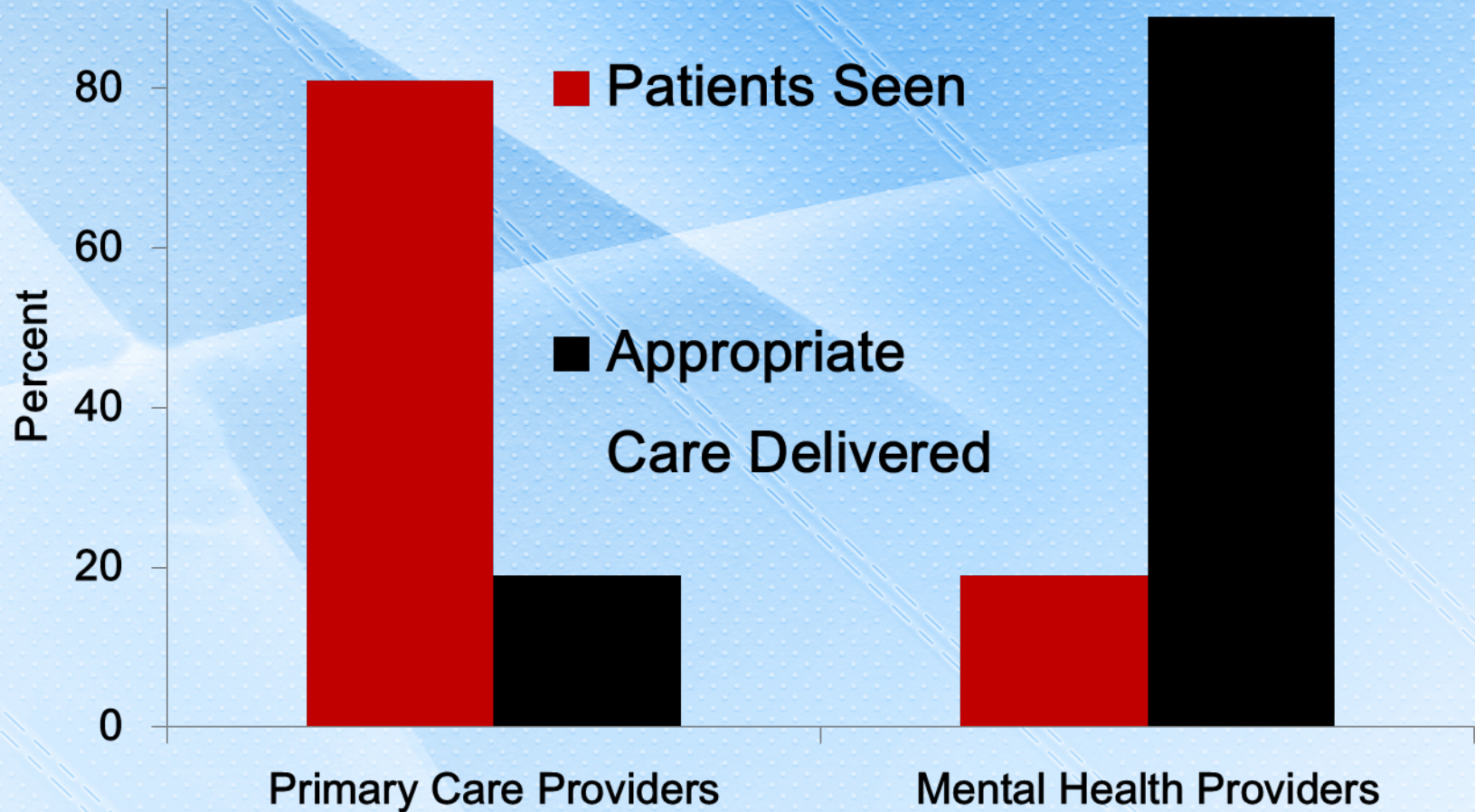
Failure to Adequately Address Mental Health


- Mental health concerns are common in primary care settings
- However, mental health concerns seen in primary care are often:
 - Unrecognized
 - Untreated
 - Treated inappropriately





Proportion of Persons with Depression or Anxiety Disorders Receiving Appropriate Treatment





Failure to Adequately Address Mental Health

- Mental health disorders are frequently co-morbid with physical disorders, complicating their effective treatment and increasing costs
 - 25-40% of medical outpatients and $\geq 40\%$ of medical inpatients are comorbid for mental health disorders Kessler et al J Occup Environ Med 2003
- Those with mental health disorders seen in mental health facilities often fail to get adequate treatment for co-morbid physical disorders
 - 75% of seriously mentally ill patients are comorbid for a physical disorder Kessler et al J Occup Environ Med 2003



Per Capita Healthcare Costs in Medically Ill, Depressed, and Comorbid Patients

	Medical Ill only	Depression only	Comorbid for Medical Illness and Depression
Health Care Costs	\$3853	\$3417	\$7407
Sick days	6.64	8.79	13.48
Health and Disability Costs	\$4646	\$4675	\$7906

Druss et al, Am J Psychiatry 2000



Medicine's Paradigm Shift to the Biopsychosocial Model

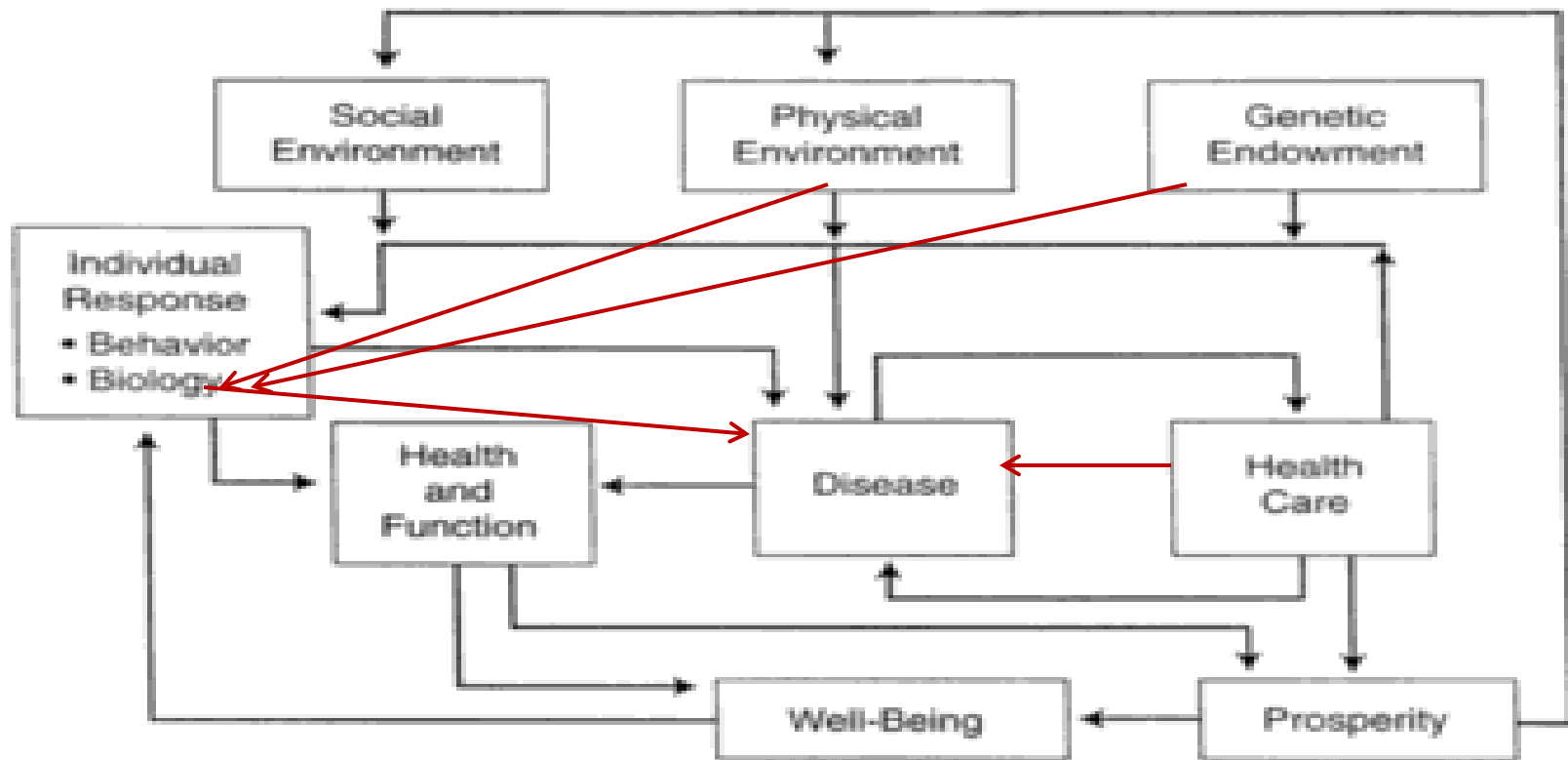



FIGURE 1-1 A model of the determinants of health. Source: Reprinted from R.G. Evans and G.L. Stoddart, 1990, *Producing Health, Consuming Health Care*, *Social Science and Medicine* 31:1347-1363, with permission from Elsevier Science Ltd, Kidlington, UK.



World Health Organization (WHO) Definition of Health: Consistent with the Biopsychosocial Model

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946

Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization, 2008.



Biomedical

- Focus: Disease
- Reductionism – disease is defined by a single biologic defect
- Dualism – mind and body are separate
- Biologic assays and treatments emphasized

Biopsychosocial

- Focus: Well-being
- Multi-factorial – well-being is a product of multiple factors
- Integrative – mind and body are not separate
- Treatments may be behavioral, biologic, or environmental
- Prevention is a focus



Patient-Centered Integrated Care: US Health Care of the Future?

- Based on the biopsychosocial model
- The patient is viewed as a whole person
- All of the patient's needs are addressed
- By inter-professional health care teams
- That include health and mental health expertise
- In a non-stigmatizing environment that considers the patient's preferences and culture



Benefits of Integrated, Patient-Centered Care Models

- Higher quality of care
- Greater access
- Reduced stigma
- Greater patient satisfaction
- Lower cost





Biopsychosocial Model: Implications for US Health Care

- Increased emphasis on disease prevention
- Increased emphasis on functioning and quality of life as health outcomes
- Use of multiple intervention options, including behavioral interventions
 - US Preventives Services Task Force recommendations:
 - Screening and Behavioral Counseling Interventions in Primary Care to Reduce Alcohol Misuse (2004)
 - Counseling and Interventions to Prevent Tobacco Use and Tobacco-Caused Disease in Adults and Pregnant Women (2009)
 - Screening for and Management of Obesity in Children (2010)
 - Behavioral Counseling to Prevent Skin Cancer (2012)
 - Screening for and Management of Obesity in Adults (2012)

Biopsychosocial Model: Implications for Health Providers

- Science-based Health Care
 - Health care practice is based on science
- Practice Guidelines
 - Professional, national, governmental agencies
- Medical Informatics
 - a science addressing how best to use information to improve health care; National Library of Medicine is the government leader (www.nlm.nih.gov)
- Patient Safety Initiatives
 - Electronic medical record
 - Decision support systems
 - Institute of Medicine report: Health IT and Patient Safety: Building Safer Systems for Better Care (2012)





Affordable Care Act is Consistent with the Biopsychosocial Model

- Essential health benefits include mental health, preventive and wellness services, and chronic disease management
 - US Preventive Services Task Force (A and B) recommendations must be covered with no cost sharing
- Emphasizes patient-centered coordinated care, patient safety, reduction of medical errors, reduction in health disparities
- Emphasizes patient functioning and quality of life as health outcomes
 - Established the Patient-Centered Outcomes Research Institute (PCORI) which focuses on “outcomes that people notice and care about such as survival, function, symptoms, and health related quality of life”



Biopsychosocial Model: Implications for Health Provider Education

- Increased behavioral science in medical education
 - MCAT will have an increased focus on behavioral and social sciences (<https://www.aamc.org/newsroom/newsreleases/273712/120216.html>)
 - Focus on patient-centered care (<http://www.lcme.org/pubs.htm>)
 - Patient-provider communication skills
 - Medical impact of common societal problems
 - Impact of patient culture and beliefs
 - Impact of provider bias and beliefs
- Increased training in inter-professional practice: Core Competencies for Interprofessional Collaborative Practice adopted by six professional organizations (medicine, nursing, osteopathy, dentistry, pharmacy, public health) and endorsed by APA (<http://www.aacn.nche.edu/education-resources/ipecreport.pdf>)



Implications of the Biopsychosocial Model: Challenges for Psychological Practice

- Reduction in mental health delivery by independent practitioners providing services in isolation
- Increased practice on health care teams in larger group practices and institutional settings
- Increased demand for expertise in a wide array of behavior issues in addition to “mental health” (e.g., compliance, pain management, coping with disability, life style behavior change)



Implications of the Biopsychosocial Model

Challenges for Psychological Practice

- Need to adapt to the larger health care culture
 - Evidence –based practice
 - Treatment guidelines
 - Electronic health records
- Need for increased collaboration with a wide range of health providers and organizations
 - To develop new payment models for patient-centered integrated care
 - Treatment guidelines



Implications of the Biopsychosocial Model: Challenges for Professional Education in Psychology

- Professional psychologists must be educated to:
 - function as health providers - not just mental health providers - expanding skills beyond mental health,
 - delivering patient-centered care,
 - on interprofessional teams



Changing from a Mental Health to a Health Profession is a Huge Paradigm Shift for Psychology

- ⊙ Many practicing psychologists feel threatened
- ⊙ They have not worked on health care teams
- ⊙ They lack expertise in health psychology
- ⊙ They are unfamiliar with the larger health care culture
- ⊙ It is unclear how they will be paid
- ⊙ This paradigm is foreign to their experience and their training



Practicing Psychology Must Embrace this Paradigm Shift

For Psychology's Survival

- ⊙ Medicine has accepted patient centered care and inter-professional practice and is training the next generation of physicians in that model
- ⊙ If psychology does not embrace this paradigm shift, other mental health professionals will serve in this role on the health care teams of the future

For Quality Patient Care

- ⊙ Attends to all of the patient's concerns
- ⊙ Increases access to quality treatment
- ⊙ Reduces stigma
- ⊙ Increases patient satisfaction
- ⊙ Reduces cost



Psychology's Paradigm Shift: APA Leading the Way

- ◎ Policy
- ◎ Strategic Plan
- ◎ Strategic Initiatives
- ◎ Education and Training
- ◎ Center for Psychology and Health





APA Policy

- ◎ 1996: Recognition as Health Service Providers
- ◎ 1999: Changing U.S. Health Care System
- ◎ 2000: Criteria for Evaluating Treatment Guidelines
- ◎ 2003: Health Service Psychologists as Primary Health Care Providers
- ◎ 2005: Evidence Based Practice in Psychology Health Care for the Whole Person
- ◎ 2007: Principles on Health Care Reform
- ◎ 201?: First treatment guidelines ever done by APA (on depression)
- ◎ 201?: Second treatment guidelines ever done by APA (on obesity)



APA's Strategic Plan

- ⦿ Maximize Organizational Effectiveness
- ⦿ **Expand Psychology's Role in Health**
- ⦿ Increase Recognition of Psychology as a Science



APA Strategic Initiatives

◎ Psychology Workforce Analysis

- Workforce needs very different if psychology is seen as a health vs mental health profession

◎ Treatment Guidelines

- To assure all providers and patients have access to all evidence-based interventions, not just biologic interventions

◎ Public Education

- To assure the public views psychology as critical to health not just mental health
- Stress in America campaign: emphasizes the link between stress and health

APA Education & Training Initiatives in Primary Care

- ◎ Directory of Education and Training Programs in Primary Care

<http://www.apa.org/ed/graduate/primary-care-psychology.aspx>

- ◎ Report of the Inter-organizational Work Group on

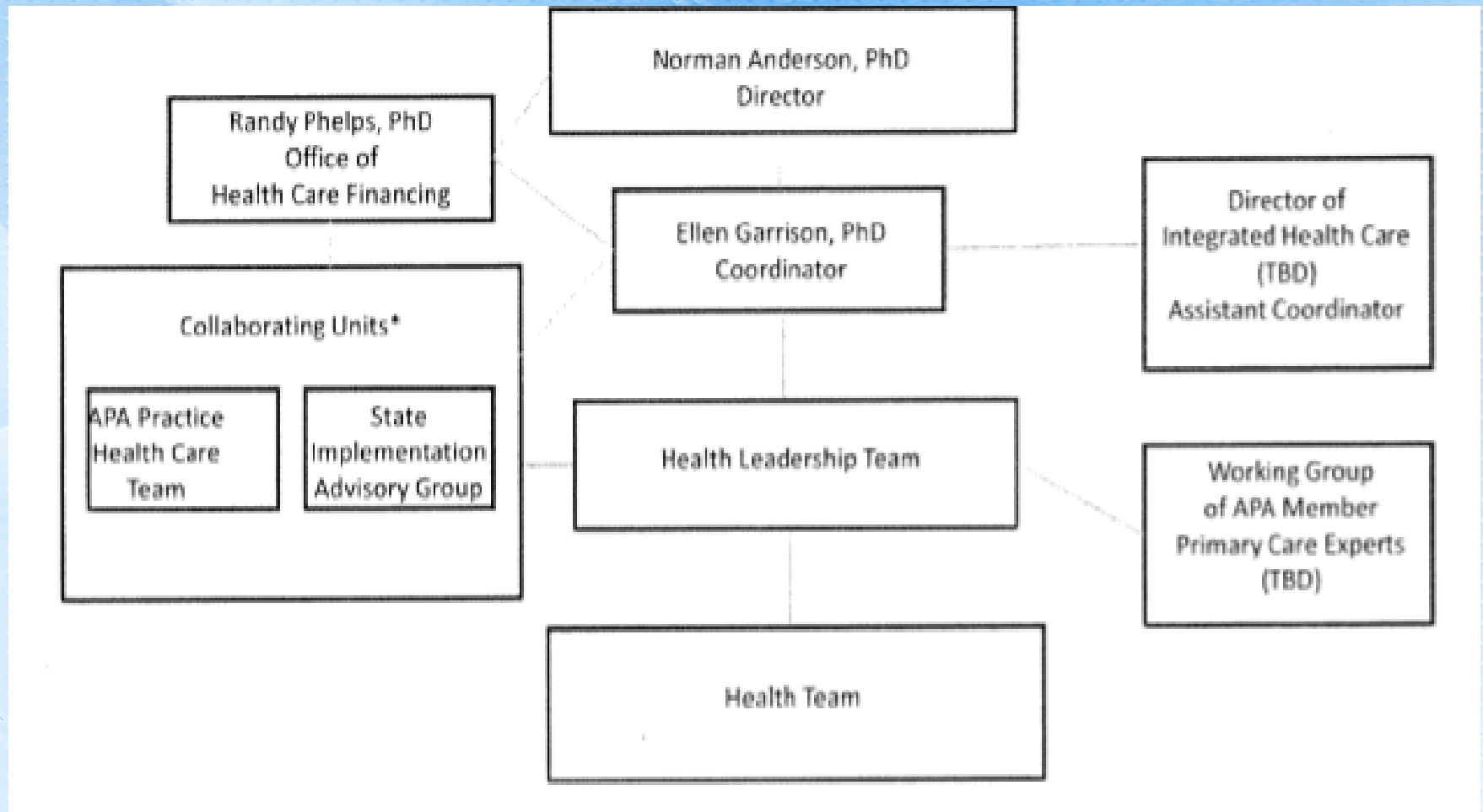
Competencies for Psychological Practice in Primary Care

(APA Division 20, Adult Development and Aging; APA Division 38, Health Psychology; APA Division 54, Society of Pediatric Psychology; Association of Psychologists in Academic Health Centers; Collaborative Family Healthcare Association; Council of Clinical Health Psychology Training Programs; Society of Behavioral Medicine; Society of Teachers of Family Medicine; and the VA Psychology Training Council)

- Available at: <http://www.apa.org/ed/resources/competencies-practice.pdf>
- To be published in AP and will inform:
- Practicing psychologists interested in obtaining new skills
- Professional psychology training programs
- Other health providers as to the skills they can expect from a psychologist on an integrated care team



APA's Center for Psychology and Health



APA's Center for Psychology and Health: Scope and Selected Activities

- ⊙ Address APA's strategic goal to increase psychology's role in health
- ⊙ Education and training
 - Expand opportunities for training in interprofessionalism and integrated health care
- ⊙ Advocacy
 - Address reimbursement issues relevant to psychological service delivery in integrated care
- ⊙ Public education and outreach
 - Develop partnerships with primary care and community agencies
- ⊙ Member communication and education





Psychology's Paradigm Shift: How Can MPA Lead the Way

- ◎ State regulatory activities to assure psychologists inclusion in integrated care
- ◎ Develop training partnerships with the VA (a leader in integrated care), Minnesota accredited doctoral, internship and post-doctoral programs, and APA to provide training opportunities for interested students and practitioners in integrated care
- ◎ Encourage more accredited doctoral, internship, and post-doctoral programs focusing on integrated care



Some final thoughts....

- ⊙ The biopsychosocial model and integrated care is consistent with psychology's world view
- ⊙ From personal experience, integrated care is engaging and rewarding
- ⊙ Not everyone needs to do this – and it will take time for the shift to occur
 - Students need to prepare for this new model
 - Mid-career practitioners should consider expanding their skills
 - Senior people with successful mental health practices will not have to make a change although most clients will be self-pay



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