Psychology's Paradigm Shift

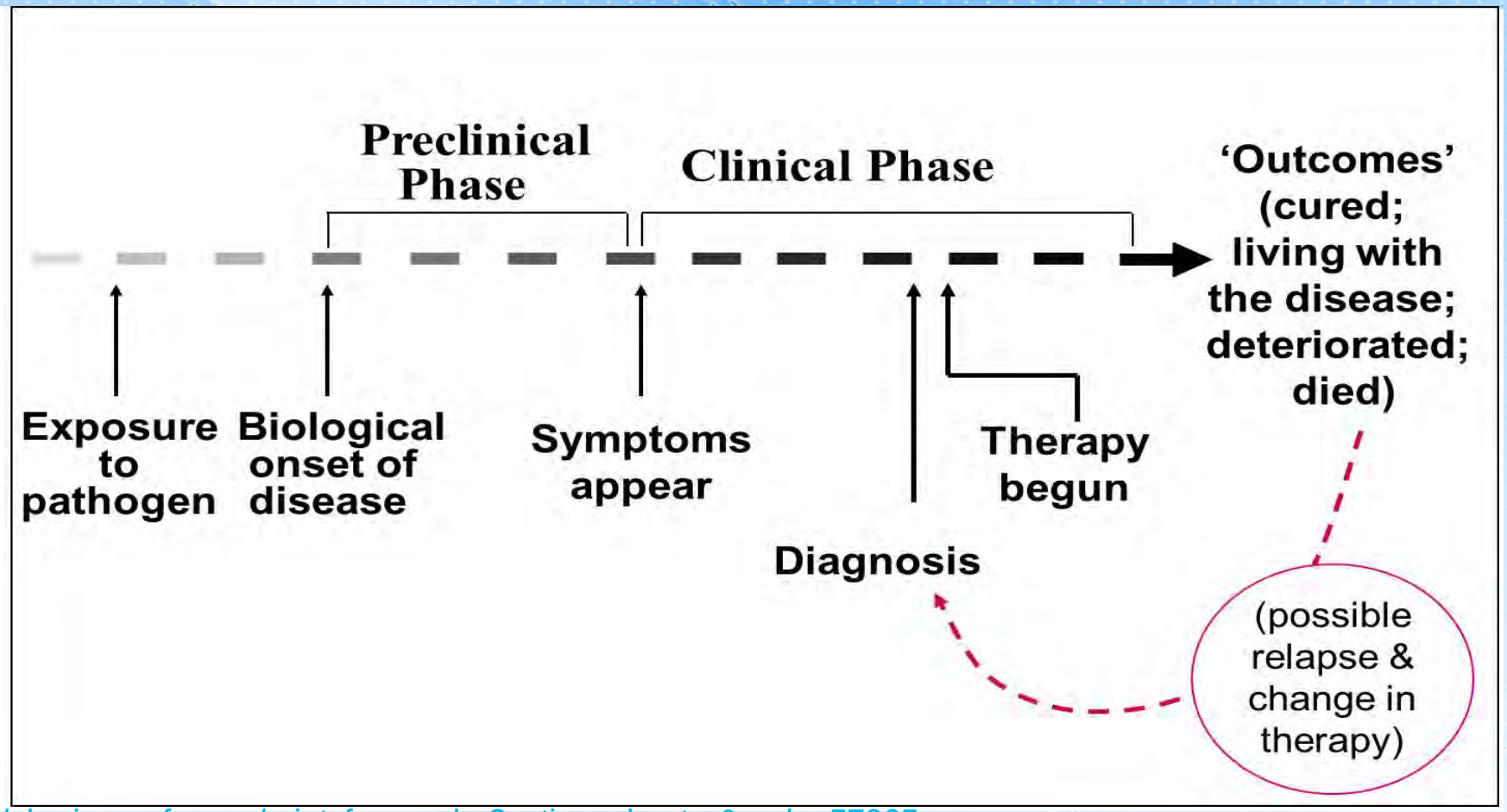
Can Psychology Successfully Transition from a Mental Health to a Health Profession?

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

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



http://phprimer.afmc.ca/print_frame.php?action=chapter&node=57965

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

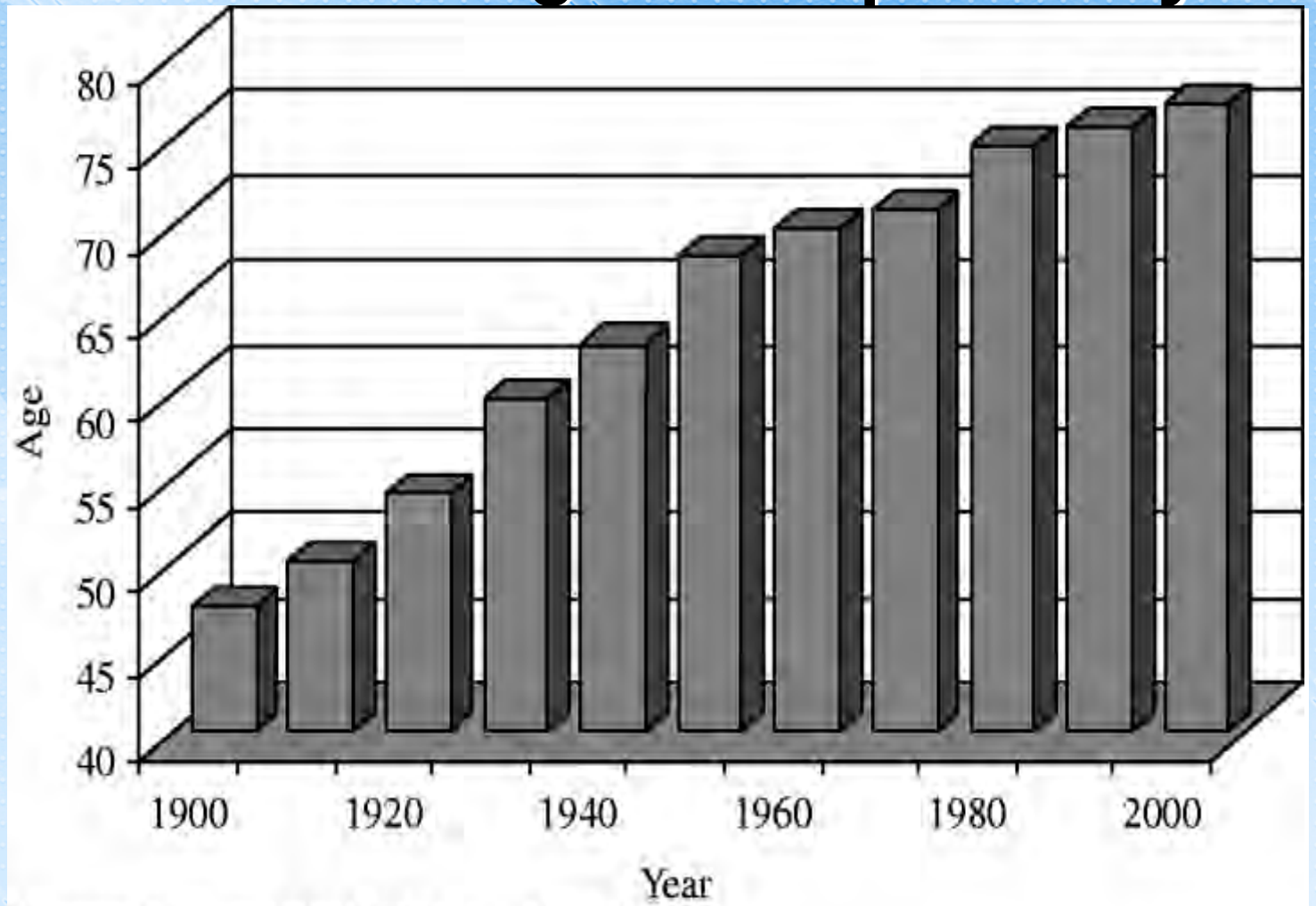
- Germ theory of disease lead to
  - Sanitation
  - Antibiotics and rise of the pharmaceutical industry
  - Decline in infectious disease
  - Increased life expectancy
- Reductionism lead to
  - Identification and treatment of underlying biologic defect (e.g. insulin replacement in type 1 diabetes)
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

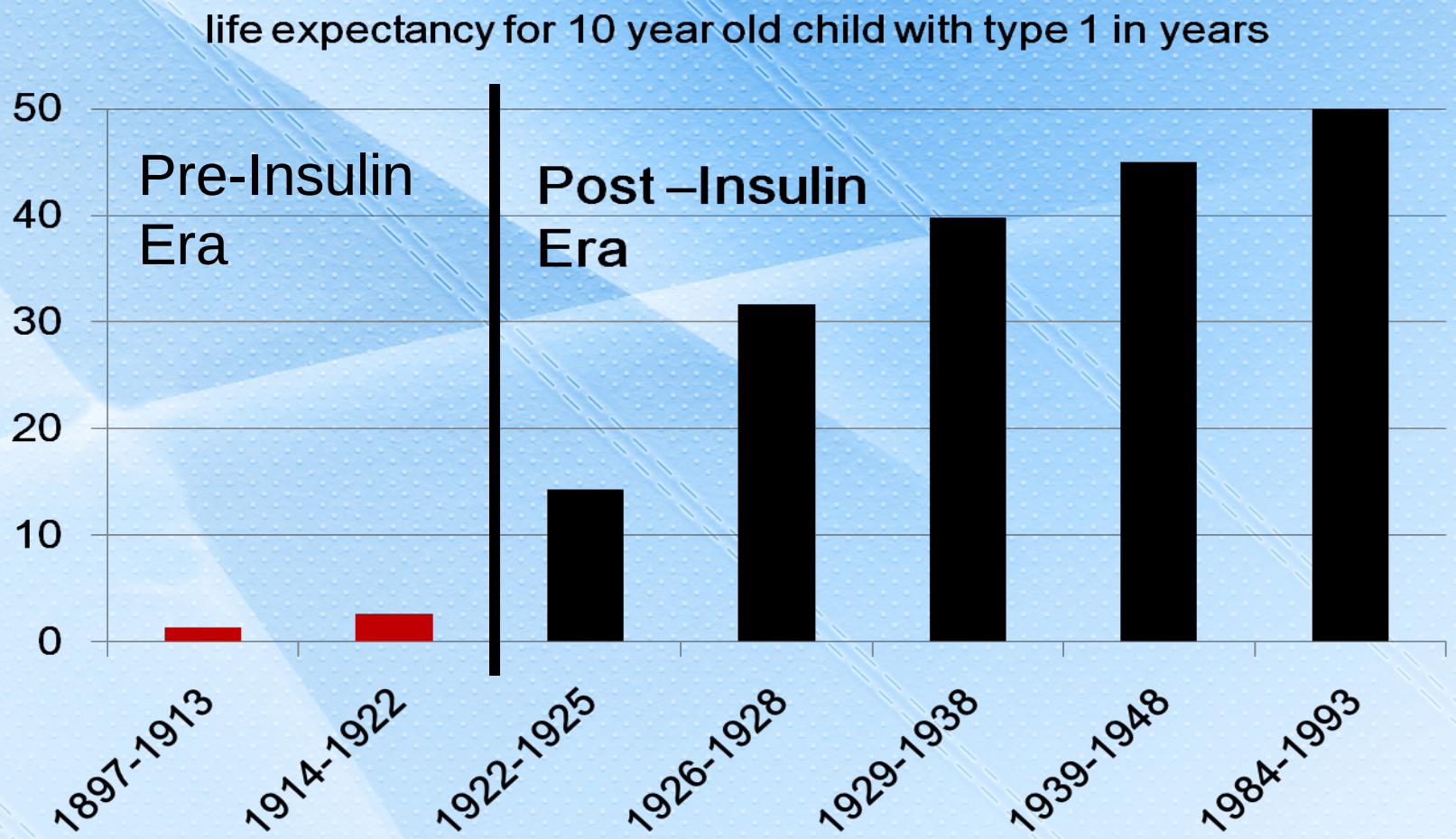
CDC, National Center for Health Statistics (1900) and National Center for Injury Prevention and Control (1999)

Success of the Biomedical Model: Increasing Life Expectancy



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

Success of the Biomedical Model: Type 1 Diabetes Life Expectancy in the Pre- and Post-Insulin Era



Dublin, 1951; Brown et al, 2001

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

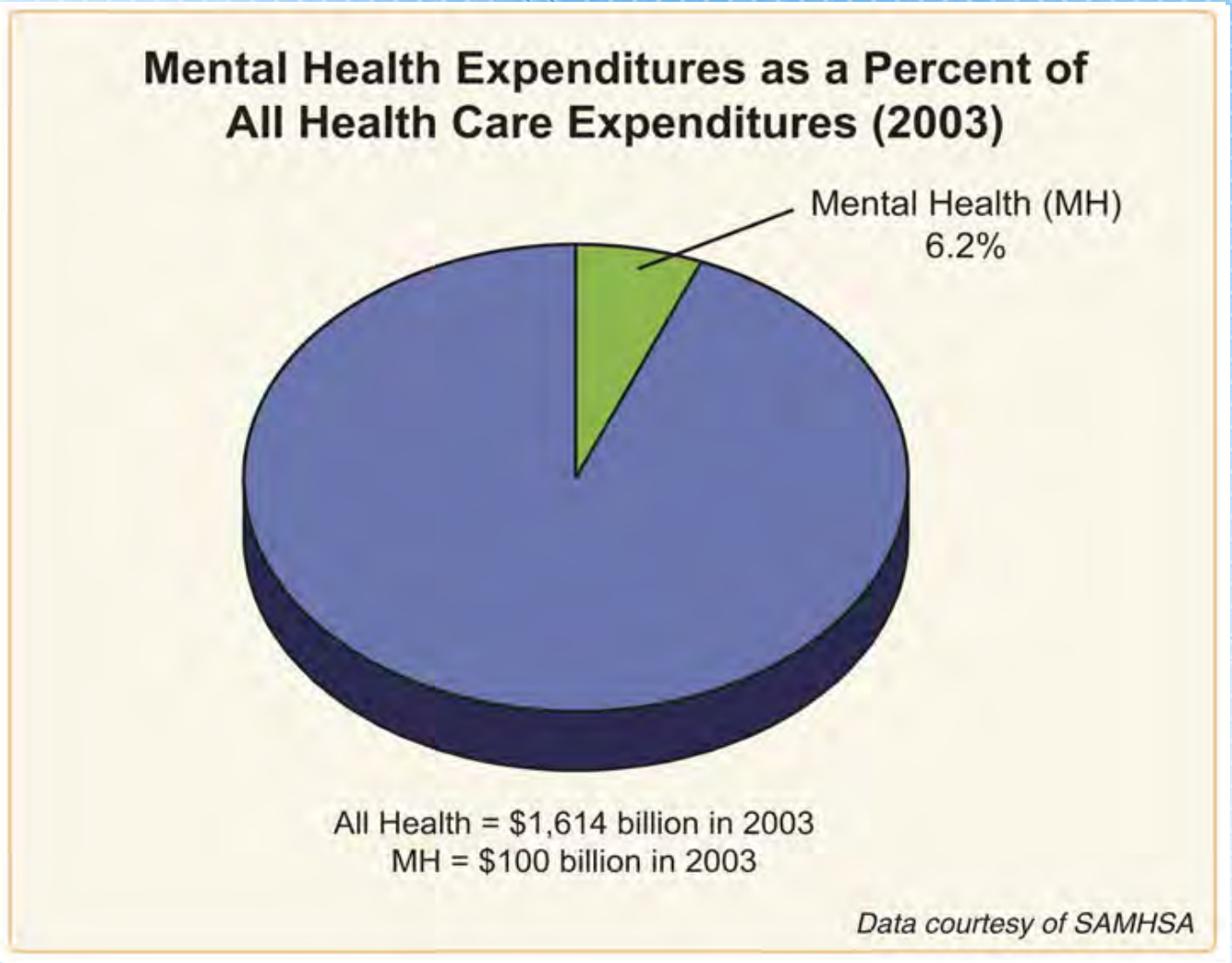
Biomedical Model's Legacy: Reductionistic, Exclusionary, Dualistic Health Care

- 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

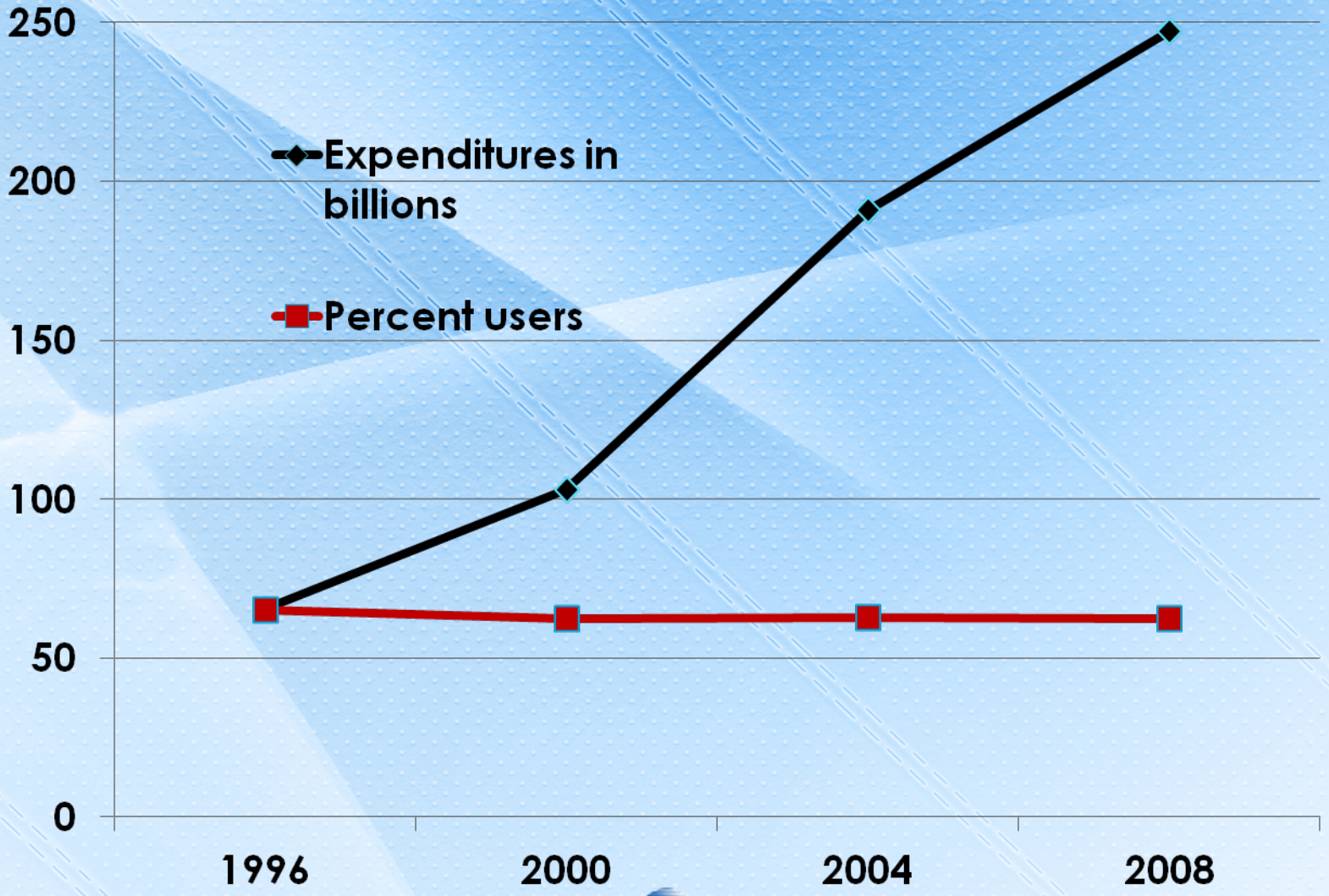
- Mental or behavioral problems are excluded or devalued
  - Mental of behavioral problems are not considered "real"
    - Patients feel devalued or "not believed"
  - Mental health services are "carved out"
    - Patients may feel stigmatized
  - Fewer resources devoted to these services
    - Poorer 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



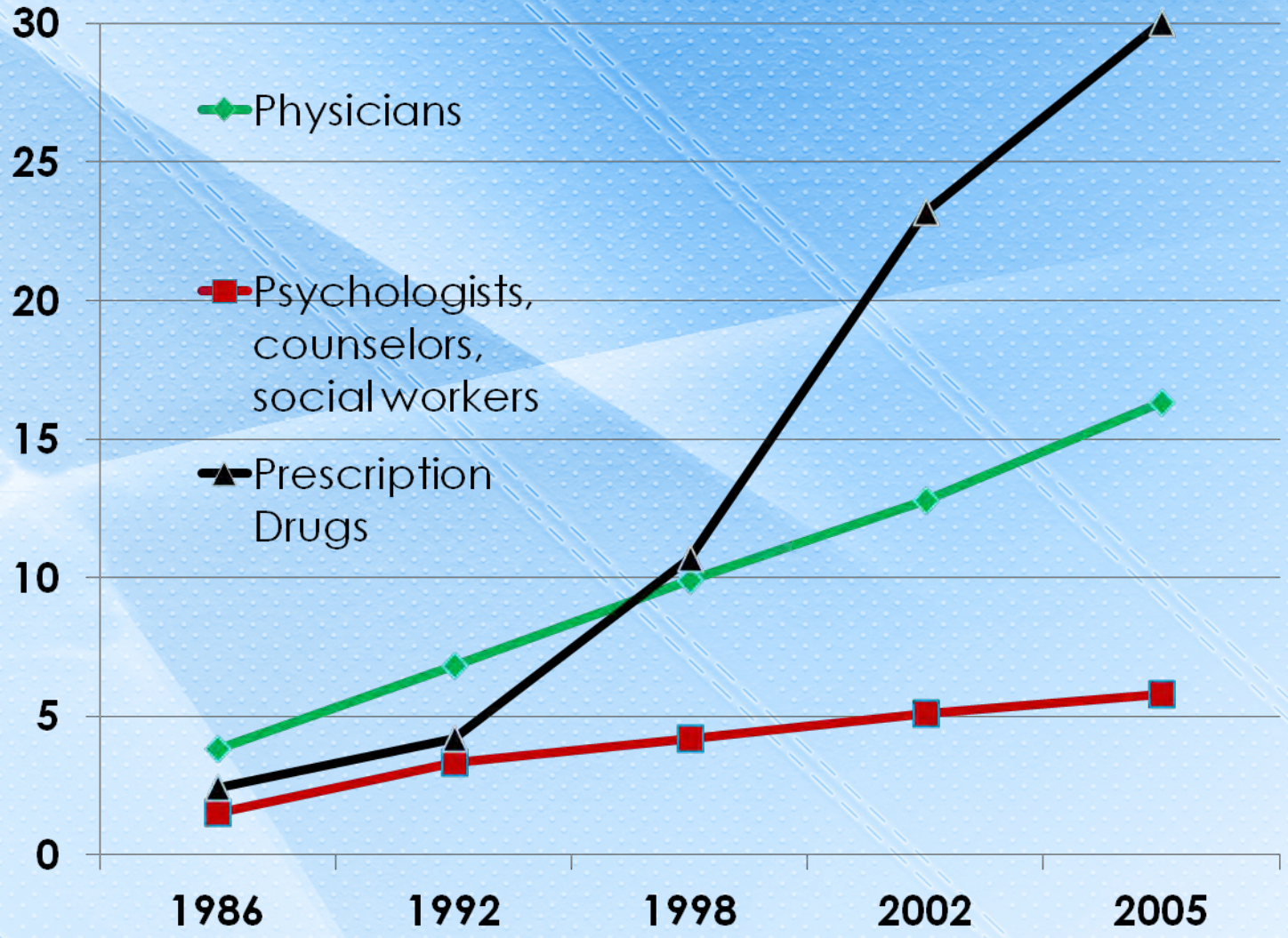
http://www.nimh.nih.gov/statistics/4EXP2003.sh

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



http://meps.ahrq.gov/mepsweb/data_stats

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



Mark et al, Health Affairs, 2011

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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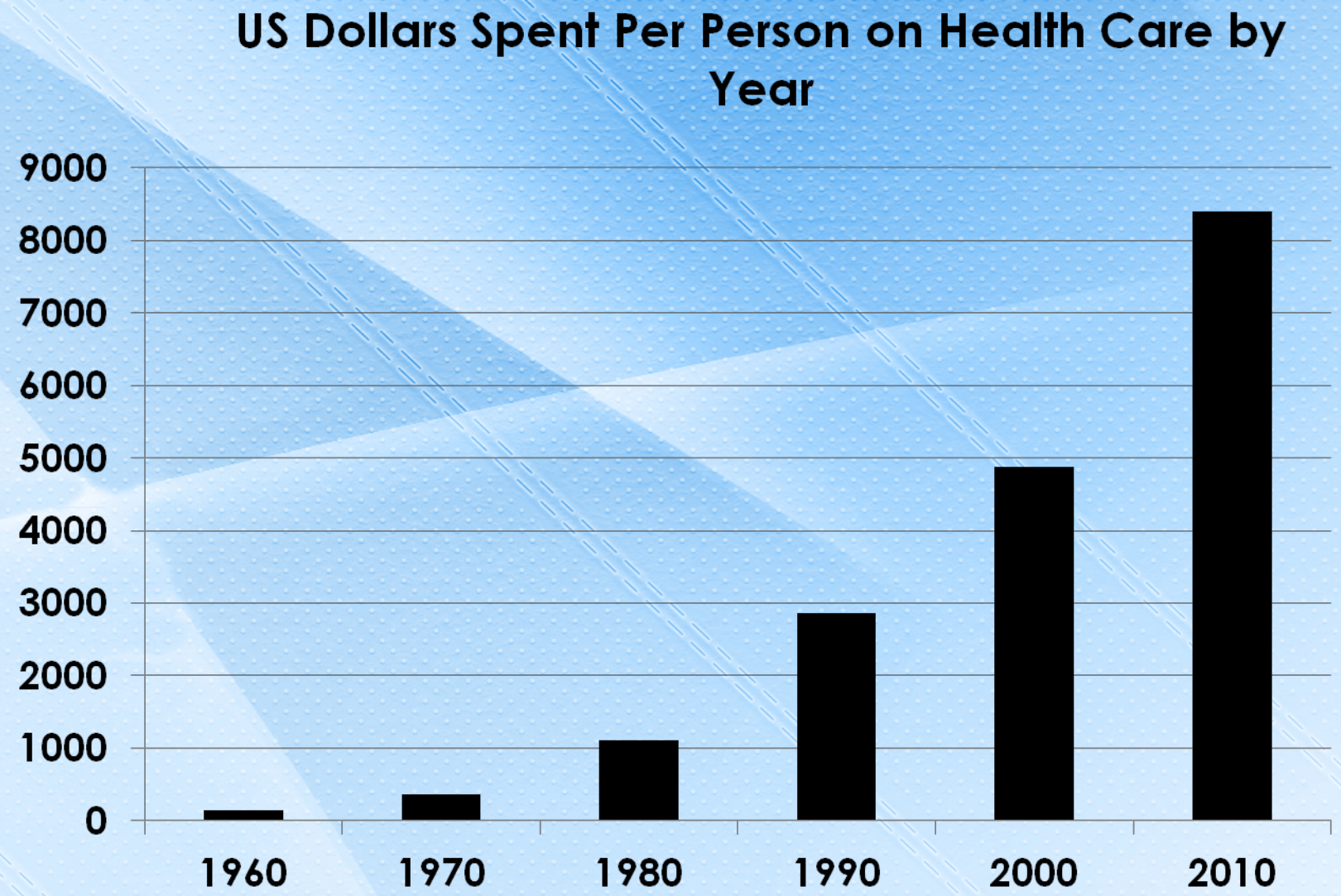
CDC, National Center for Health Statistics (1900) and National Center for Injury Prevention and Control (1999)

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

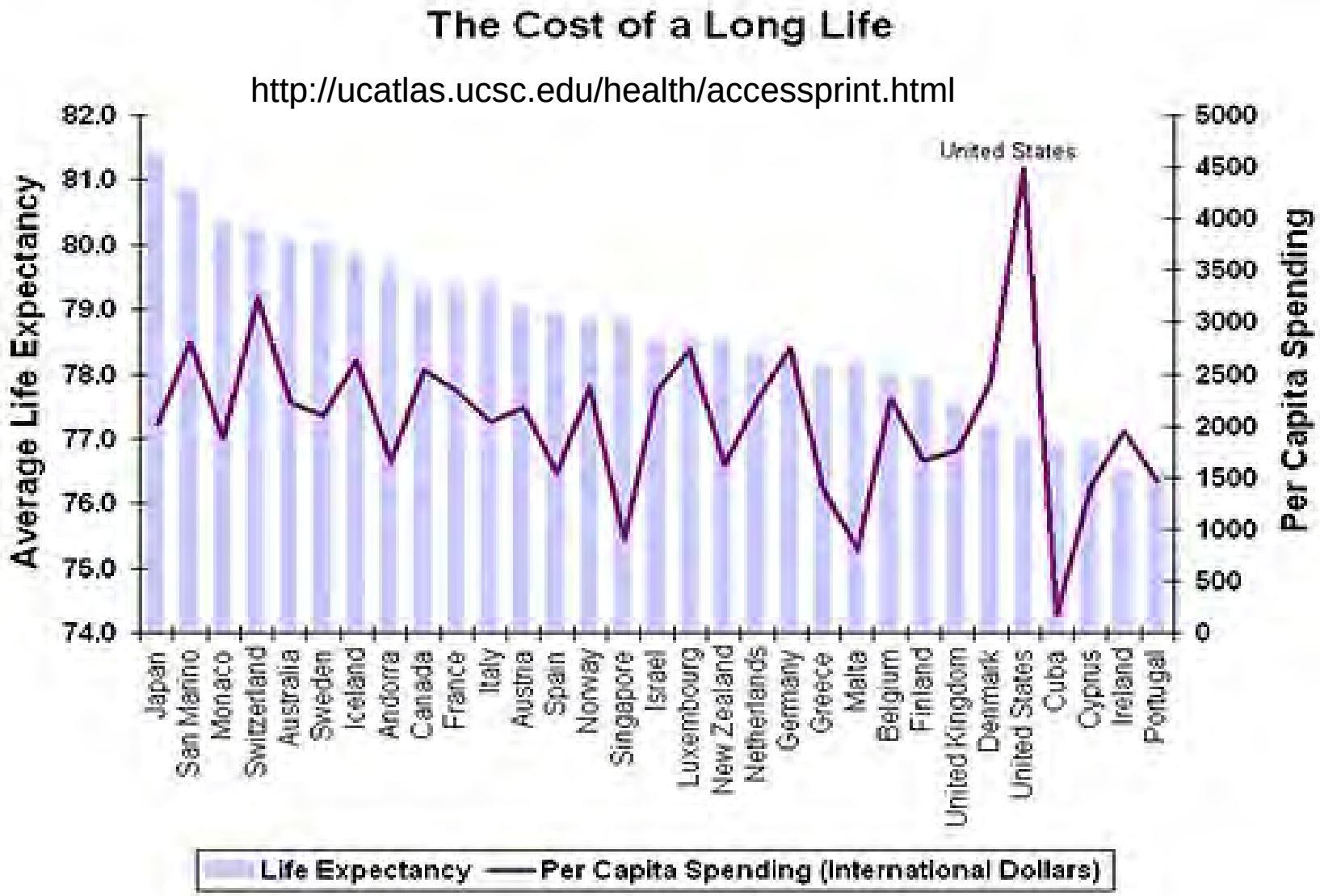
Rising Health Costs



Centers for Medicare and Medicaid Services

American Psychological Association

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



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

JAMA. 2004;291:1238-1245

Increasing Recognition of the Role of Behavior: Determinants of Health

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

CDC, 2010

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

www.surgeongeneral.gov/sgoffice.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

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

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

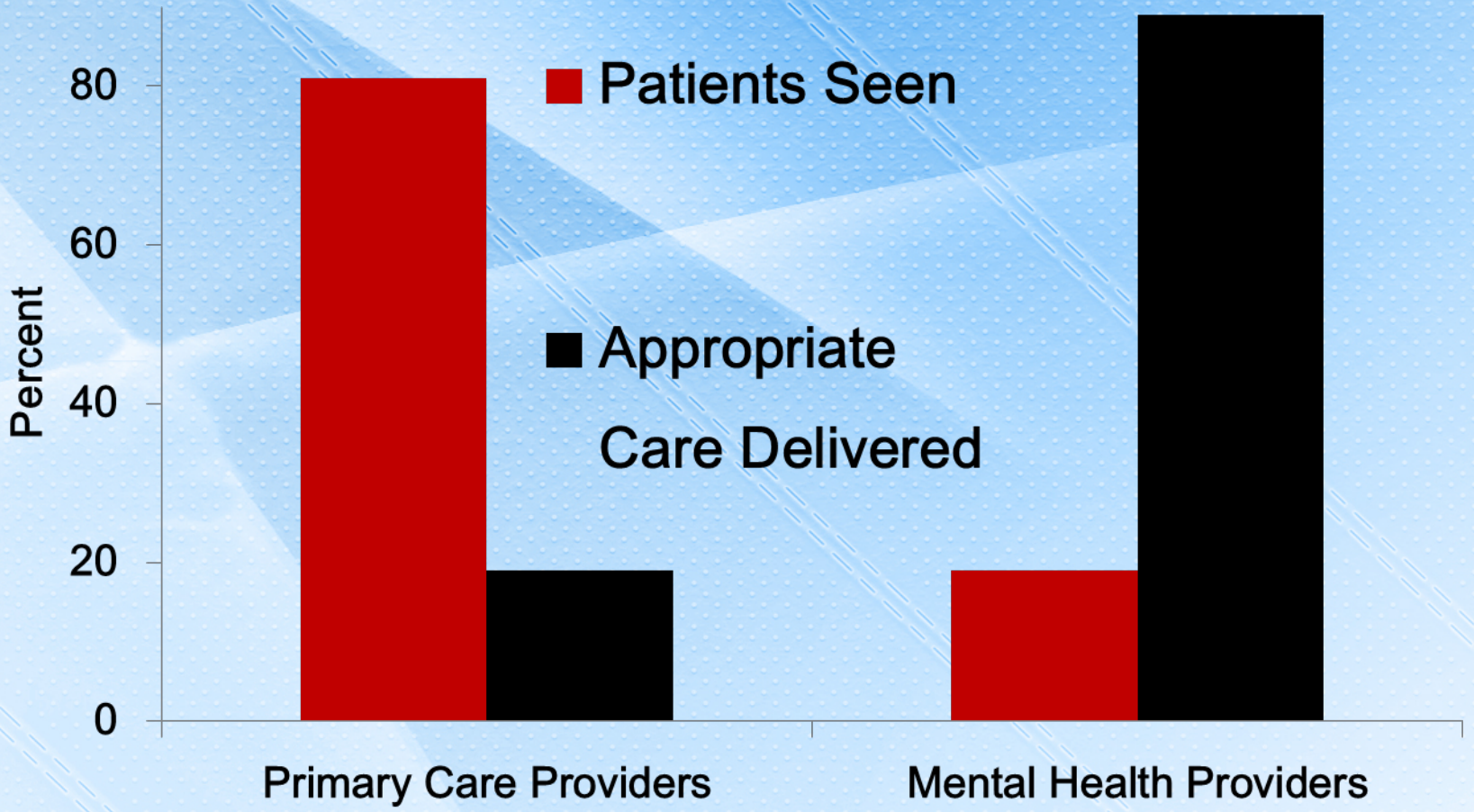
- Mental health concerns are common
  - 26% of US adults have a mental disorder
  - 6% have a serious mental disorder
- Mental disorders are the leading cause of disability in the U.S.

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



Young et al, Arch Gen Psychiatry, 2001

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 ≥ 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

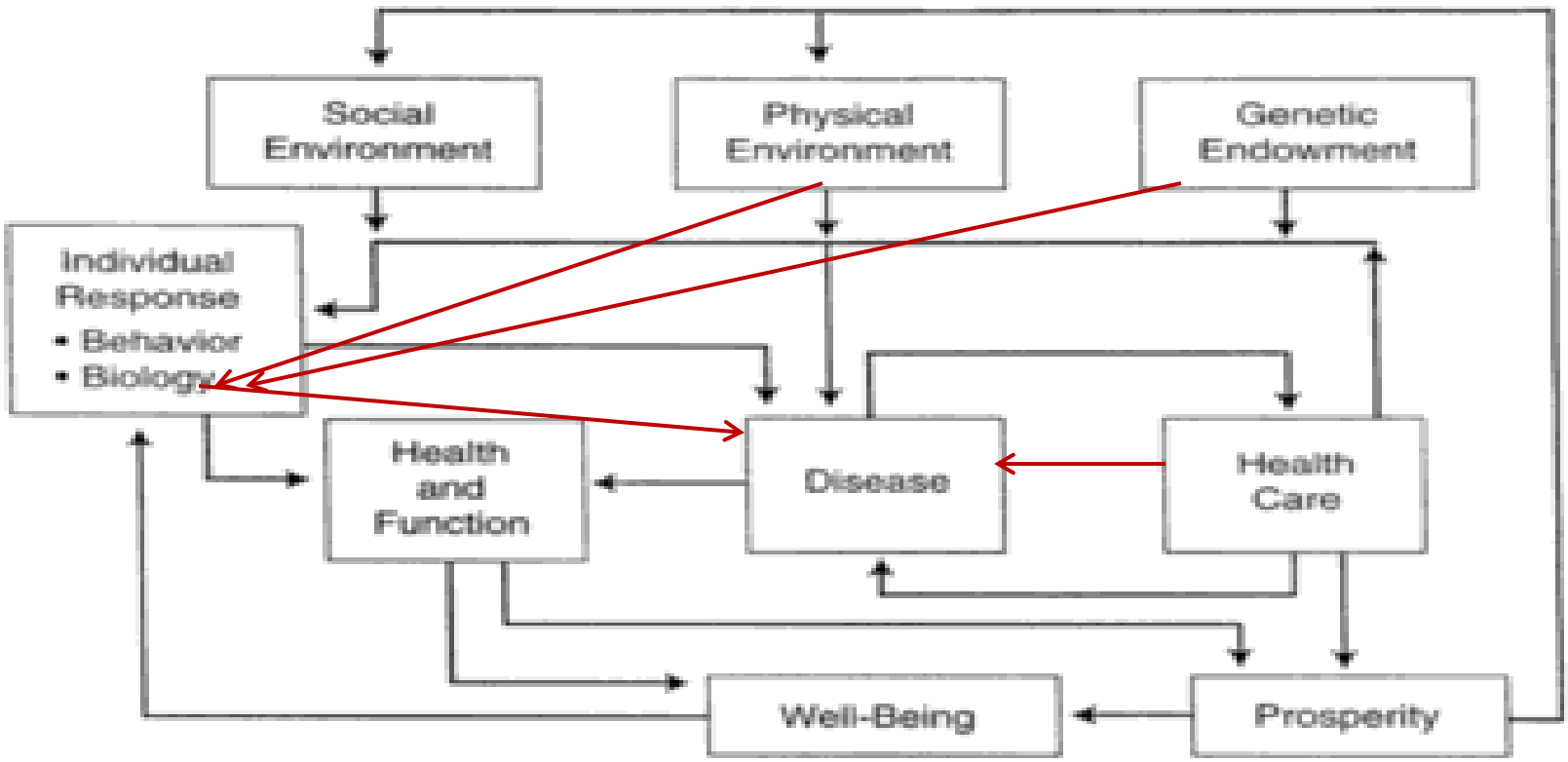


FIGURE 1-1 A model of the determinants of health. Source: Reprinted from R.G. Evans and G.L. Stoddart, 1990, Producing Health, Consuming Health Care, *Social Science and Medicine* 31:1347-1363, with permission from Elsevier Science Ltd, Kidlington, UK.

Biomedical model indicated in red

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)

http://www.uspreventiveservicestaskforce.org;www.pcori.org

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”

http://housedocs.house.gov/energycommerce/ppacacon.pdf

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

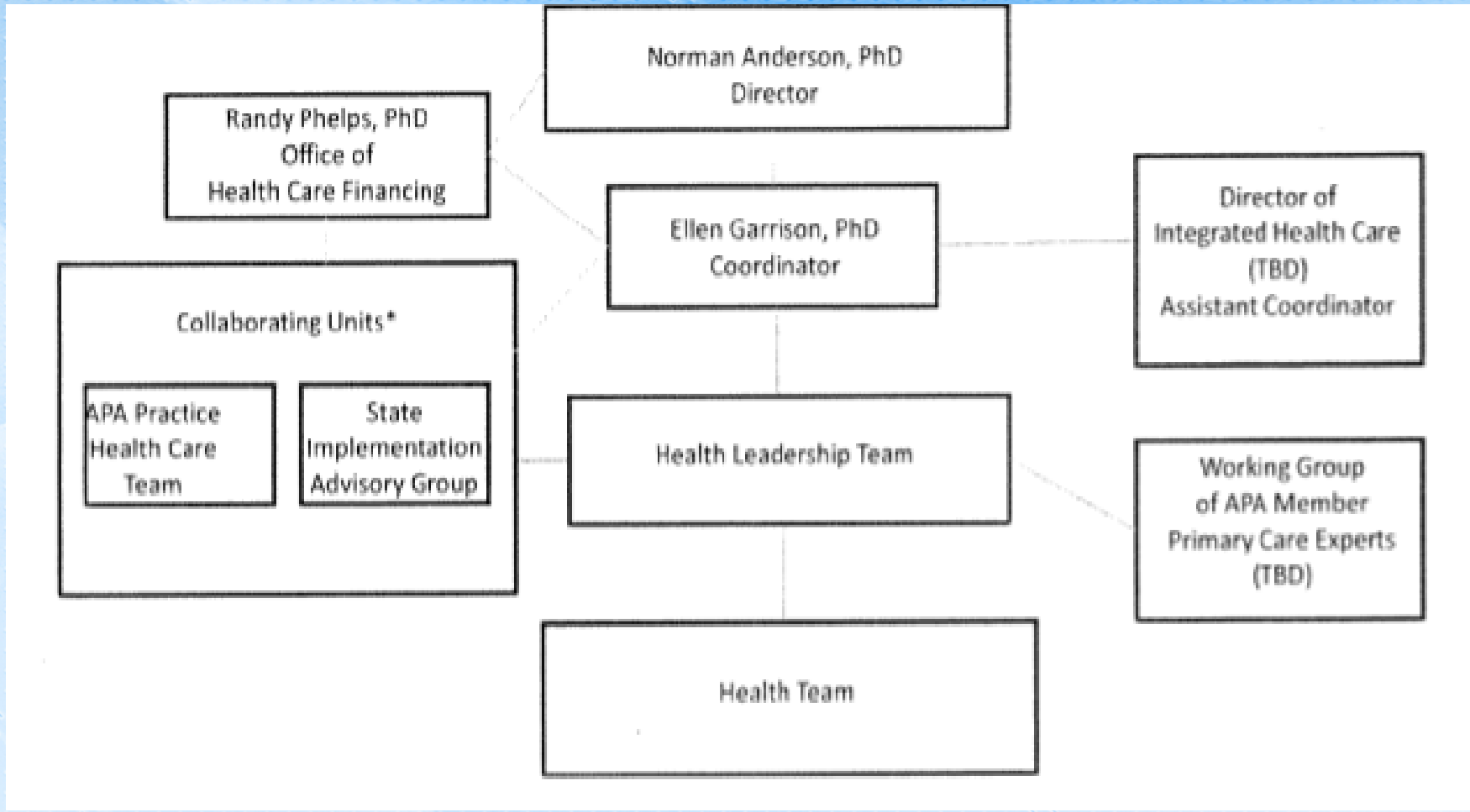
- Psychology Workforce Analysis
  - Workforce needs very different if psychology is seen as a health vs mental health profession
- Treatment Guidelines
  - To assure all providers and patients have access to all evidence-based interventions, not just biologic interventions
- Public Education
  - To assure the public views psychology as critical to health not just mental health
  - Stress in America campaign: emphasizes the link between stress and health

http://www.apa.org/news/press/releases/2012/01/chronic-disease.aspx

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 KPA Lead the Way

- State regulatory activities to assure psychologists inclusion in integrated care
- Kentucky is a leader in providing access to health care through ACA; how well is psychology integrated into the health programs offered?
- Develop training partnerships with the VA (a leader in integrated care), Kentucky 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

This presentation is available at
www.apa.org/sbjohnson

also see American Psychologist
2013, 68, 311-321