

The Changing Face of Public Health in an Information Age

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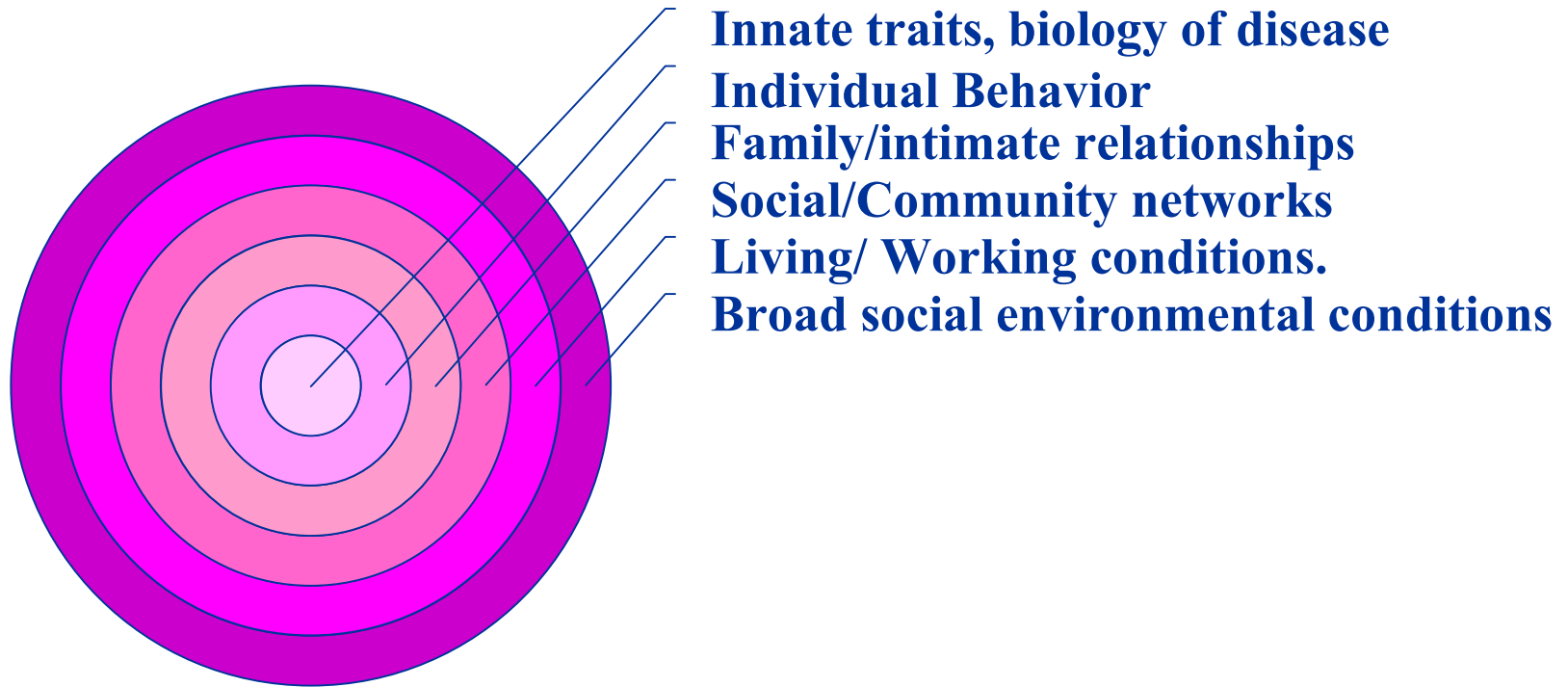
**Brown Medical School
Public Health Program**

Goal of Public Health

- **Protecting and improving the health of populations through:**
 - **research**
 - **surveillance and regulation**
 - **information**
 - **interventions**



Conceptual Model of Public Health



Public Health Challenges

- **Globalization**
- **Emerging Pathogens/Infectious diseases**
- **Bioterrorism/Disaster Response**
- **Demographic Transformation**
- **Scientific and Medical Technology**
 - **Information systems**
 - **Genetics**
- **Cultural Competence**
- **Community participation/advocacy**
- **Ethics/Law**



Globalization

- **Emerging pathogens a plane ride away**
- **Exportation of economies and lifestyles**
 - **Good news:**
 - health promotion
 - longevity
 - **Bad news:**
 - Unhealthy lifestyles
 - ↑Smoking, diet, ↓exercise, ↓nursing



Bioterrorism Preparedness Disaster Response

- **Surveillance**
- **Planning and Coordination**
- **Research**
- **Response**



Demographic Transition

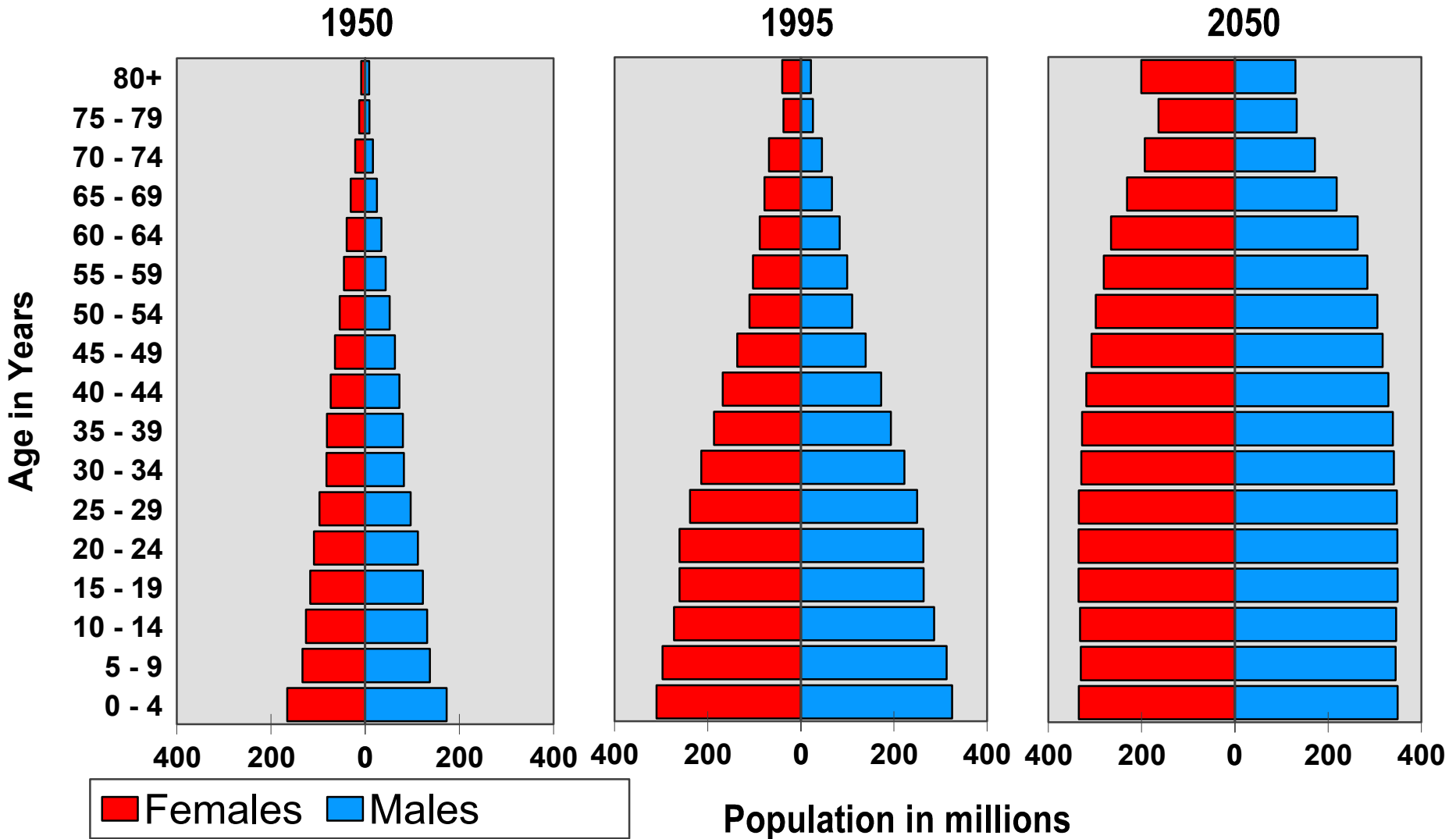
➤ Population Aging

- Increased Longevity
- Decreased Fertility

➤ Infectious Disease → Chronic Conditions



World Population by Age



Source: United Nations data

Scientific Advances and New Technologies

- **Opportunities for Prevention**
- **Genetic Revolution**
 - Understanding of Disease Etiology
 - Identification of Risk
 - Gene Therapy
- **New Medications and Interventions**
 - Vaccines, treatments, behavioral interventions



Cultural Competence

- **Increasing Diversity of US Population**
- **Health Disparities**
- **Cultural Differences in Health Beliefs and Behavior**
- **Differences in Access and Treatment**



Participation and Advocacy

➤ Empowerment of Individuals

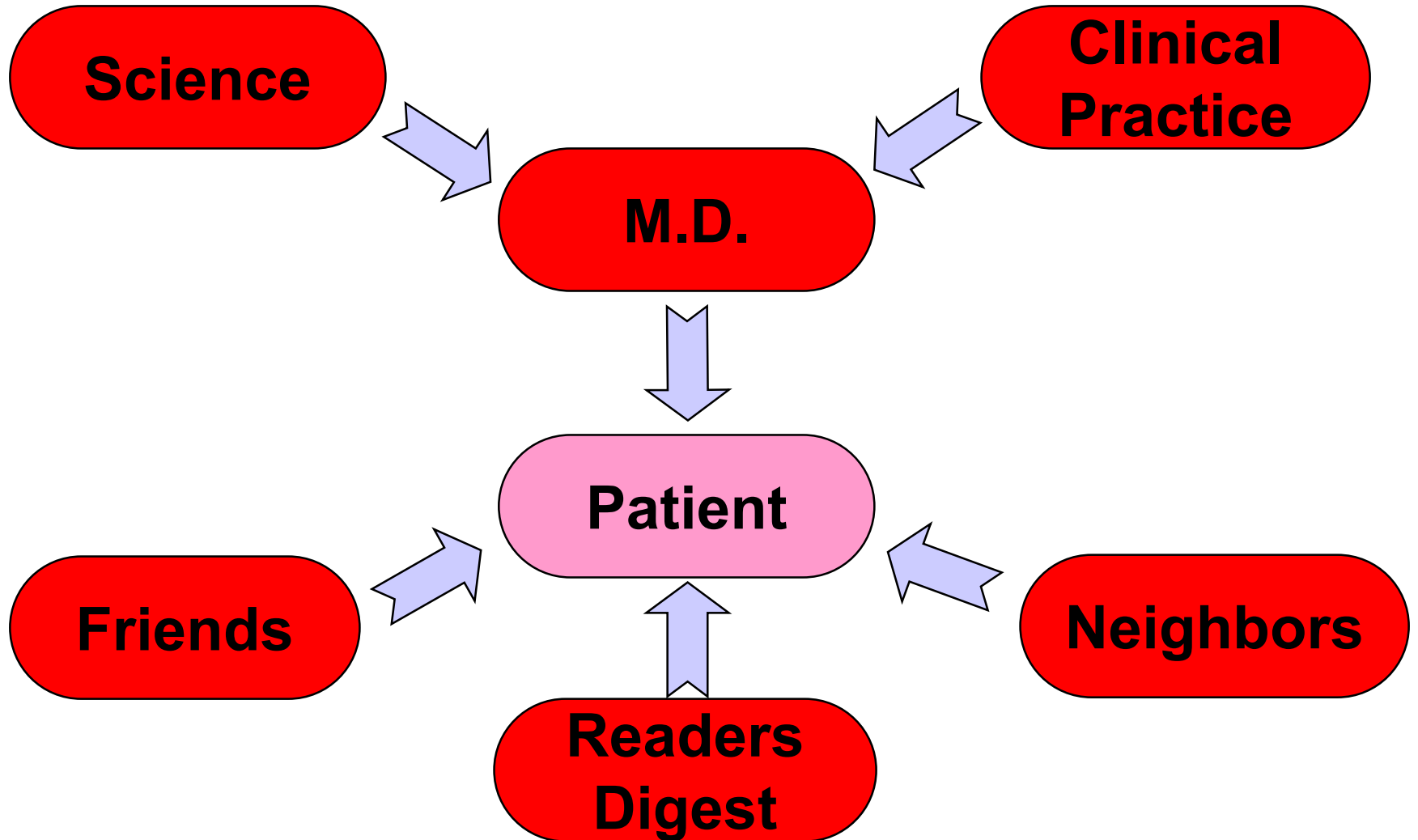
➤ Access to Health Information

- Professionals
- Public
- Consumers and special populations



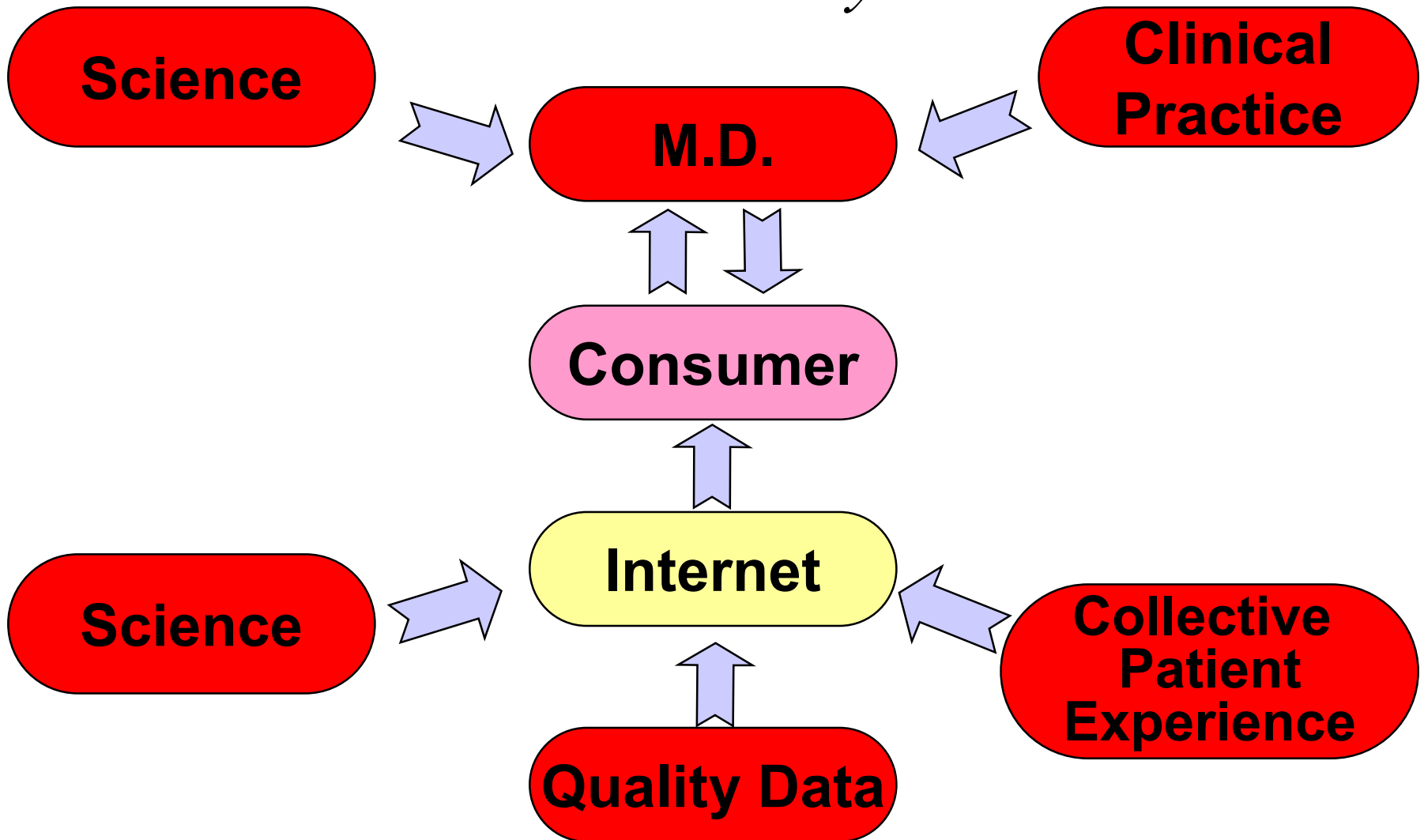
Knowledge Transmission in Medicine

20th Century

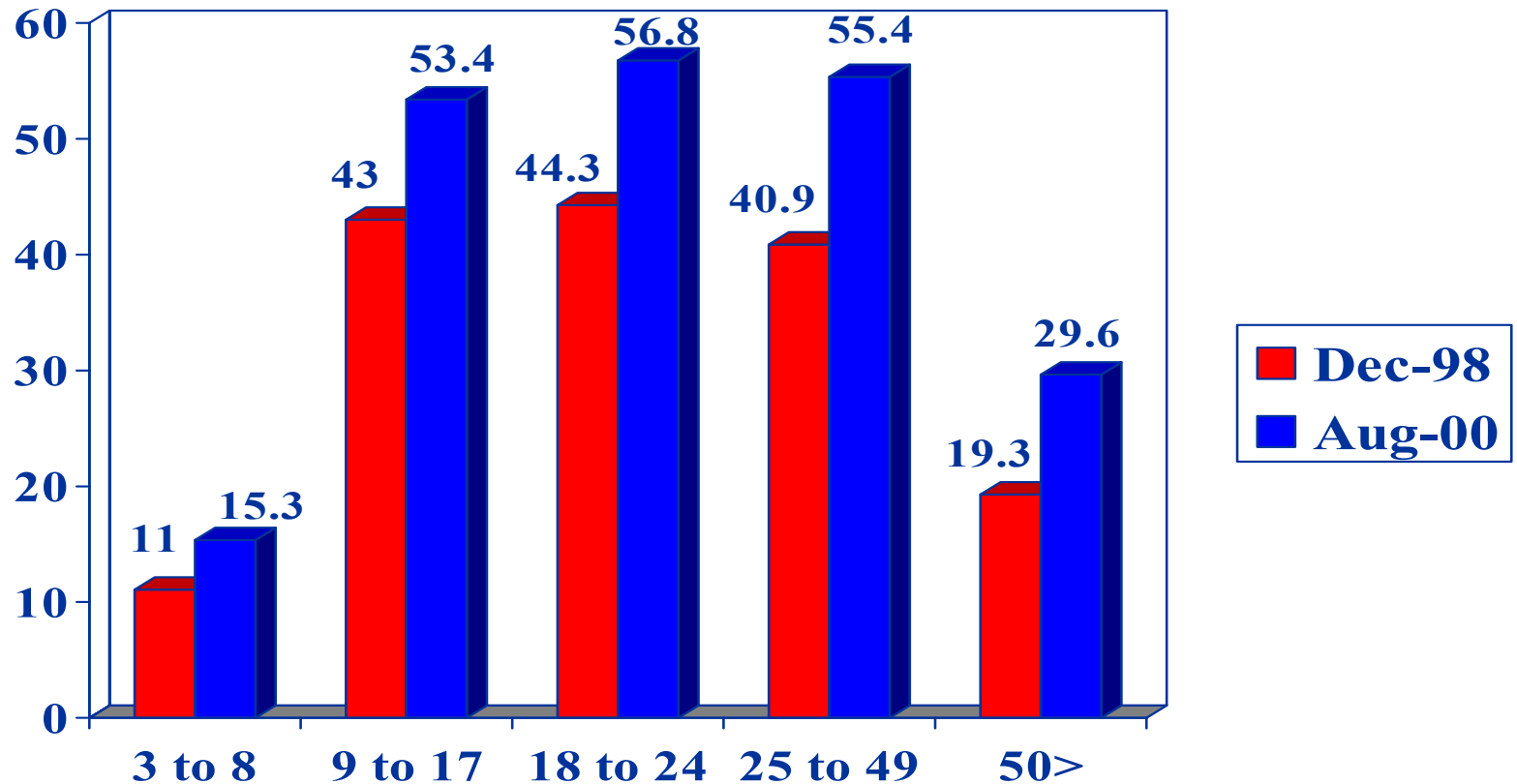


Knowledge Transmission in Medicine

21st Century

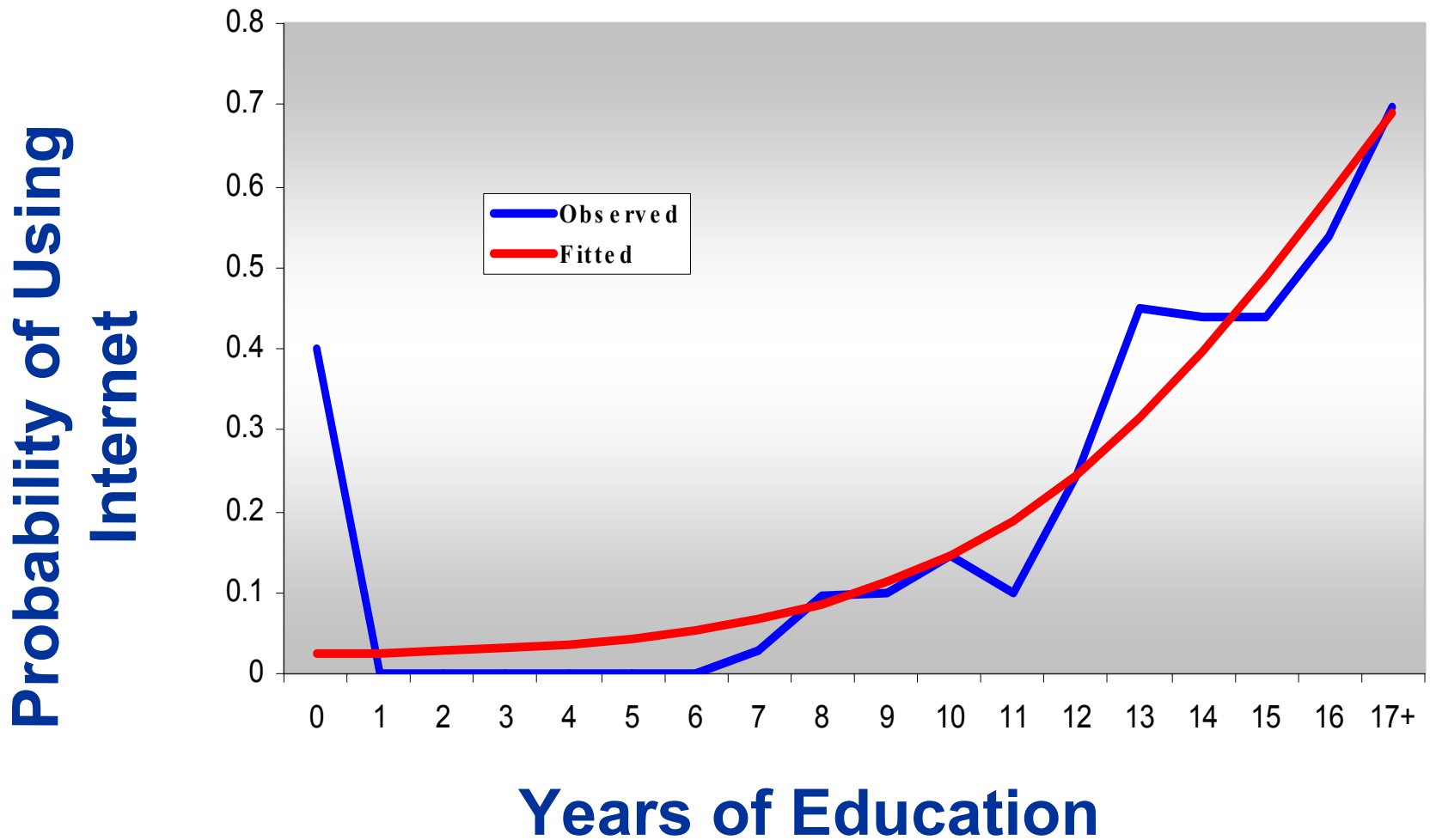


Internet Use by Age Group



U.S. Department of Commerce, using US
Census Bureau data, October 2000

Internet Access by Education



HRS Experimental Mail-out Study, 1999

Alzheimer's Disease on the Web

- Search on Google 410,000 hits
- Search on Yahoo 119 sites found
- Search on Alta Vista 382,334 pages



Public Health Degrees

- **BS or BA (Major, concentration, certificate)**
- **Masters of Public Health (MPH) or MS, MA**
- **DPH or PhD**
- **Post-doctoral training (MD-MPH)**
- **Certification**



Disciplines/Areas of Emphasis

- **Epidemiology**
- **Statistics**
- **International Health**
- **Maternal and Child Health**
- **Health Services Research**
- **Tropical Medicine**
- **Infectious Disease**
- **Behavioral Medicine**
- **Population Health**
- **Health Communications**
- **Public Health Nursing**
- **Occupational Health**
- **Health Law**
- **Ethics**



Brown Public Health Program Mission

To improve population health by:

- **conducting research to better understand disease risk factors and health promotion,**
- **educating future generations of health researchers and policy makers, and**
- **providing public service through translation of research into public policy.**



Public Health Program: Components of Mission

- **Integrated Educational Program**
- **Research Agenda and Centers**
- **Public Service and Public Policy**



Brown Public Health Educational Program

➤ Concentrations and Degrees

- **Undergraduate concentration in Community Health**
- **Community Medicine Clerkship**
- **Graduate degrees**
 - **Masters**
Biostatistics, Epidemiology, MPH
 - **Doctoral**
Epidemiology (Health Services), Biostatistics
 - **Post-Doctoral Fellowship Programs**



Masters of Public Health

- **Director, Patrick Vivier, MD, DPH**
 - **Coordinator, Joann Barao – 863-2059**
- **MPH Program focus:**
 - **developing and translating research data into information for public health policy and practice**



Public Health Program

Research Centers and Institutes



Research Centers and Institutes

- **Alcohol and Addiction Studies***
- **Behavioral and Preventive Medicine**
- **Gerontology and Health Care Research***
- **Primary Care and Prevention**
- **Clinical Trials in Evidence-Based Health Care***
- **AIDS program****
- **International Health Institute***
- **Statistical Sciences***
- **Institute for Community Health Promotion***



* Brown based

** Mixed

**Brown Medical School
Public Health Program**

Program in Public Health

Affiliated Centers and Institutes

Center	Current Year	Total (All Years)
Alcohol and Addiction Studies	\$ 8,516,410	\$ 35,300,983
Gerontology & Health Care Research	\$ 4,201,291	\$ 16,016,550
Brown University AIDS Program	\$ 10,113,311	\$ 35,051,565
International Health Institute	\$ 1,705,690	\$ 7,554,814
Statistical Sciences	\$ 3,846,377	\$ 15,208,542
Primary Care and Prevention	\$ 6,854,113	\$ 42,662,763
Behavioral & Preventative Medicine	\$ 16,093,273	\$ 64,613,622
Clinical Trials/Evidence-based Healthcare	\$ 2,618,195	\$ 15,069,584
Institute for Community Health Promotion	<u>\$ 2,942,143</u>	<u>\$ 14,325,592</u>
TOTALS	\$56,890,800	\$245,804,015



Public Health Program

Public Service and Public Policy



Public Service Activities

- **Bioterrorism preparedness in RI**
- **Providence Science and Health
Technology High School**
- **Governor's Advisory Committee on
Health**
- **Rhode Island Public Health Association**

