

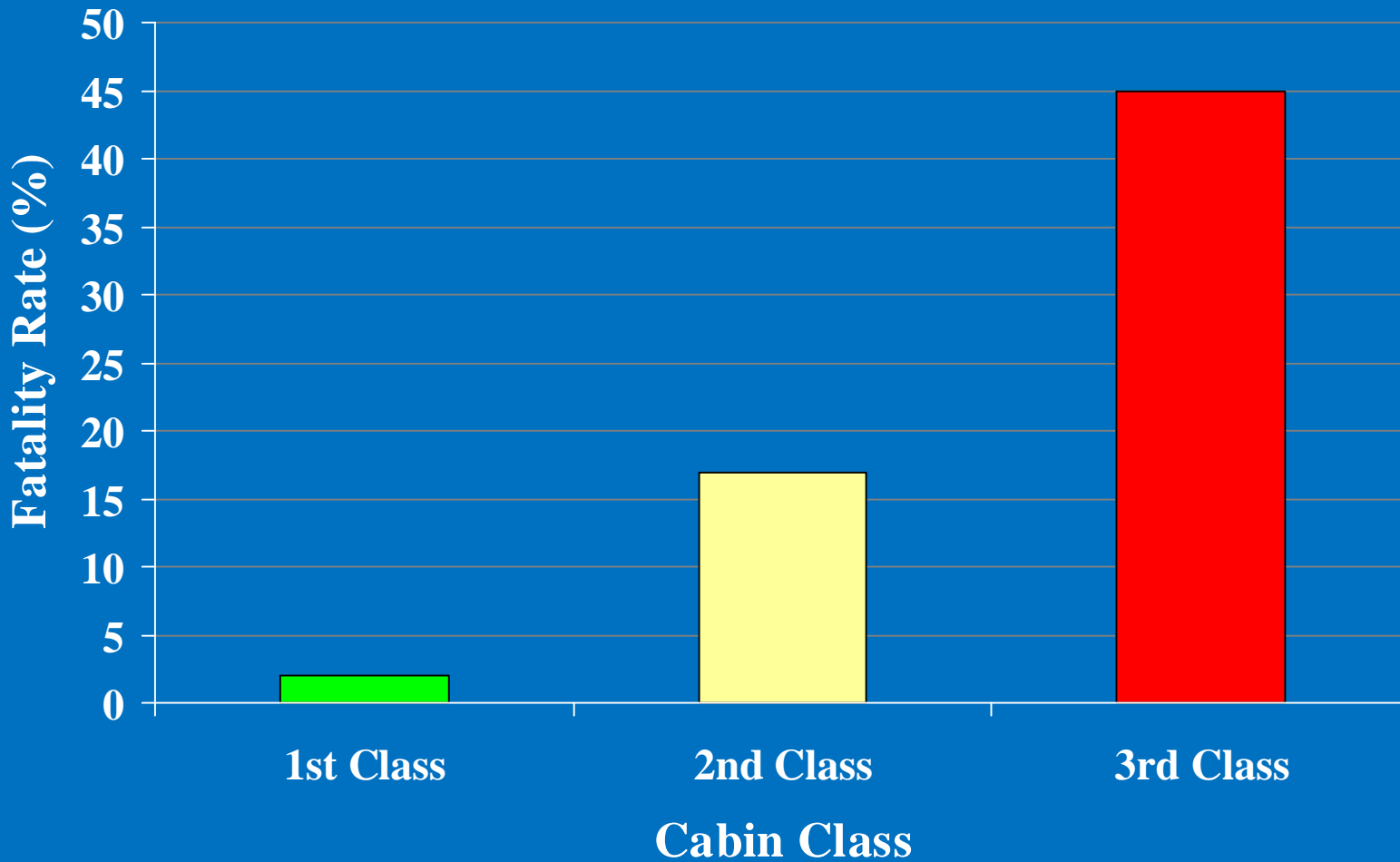
Social Determinants of Health: Dimensions and Data

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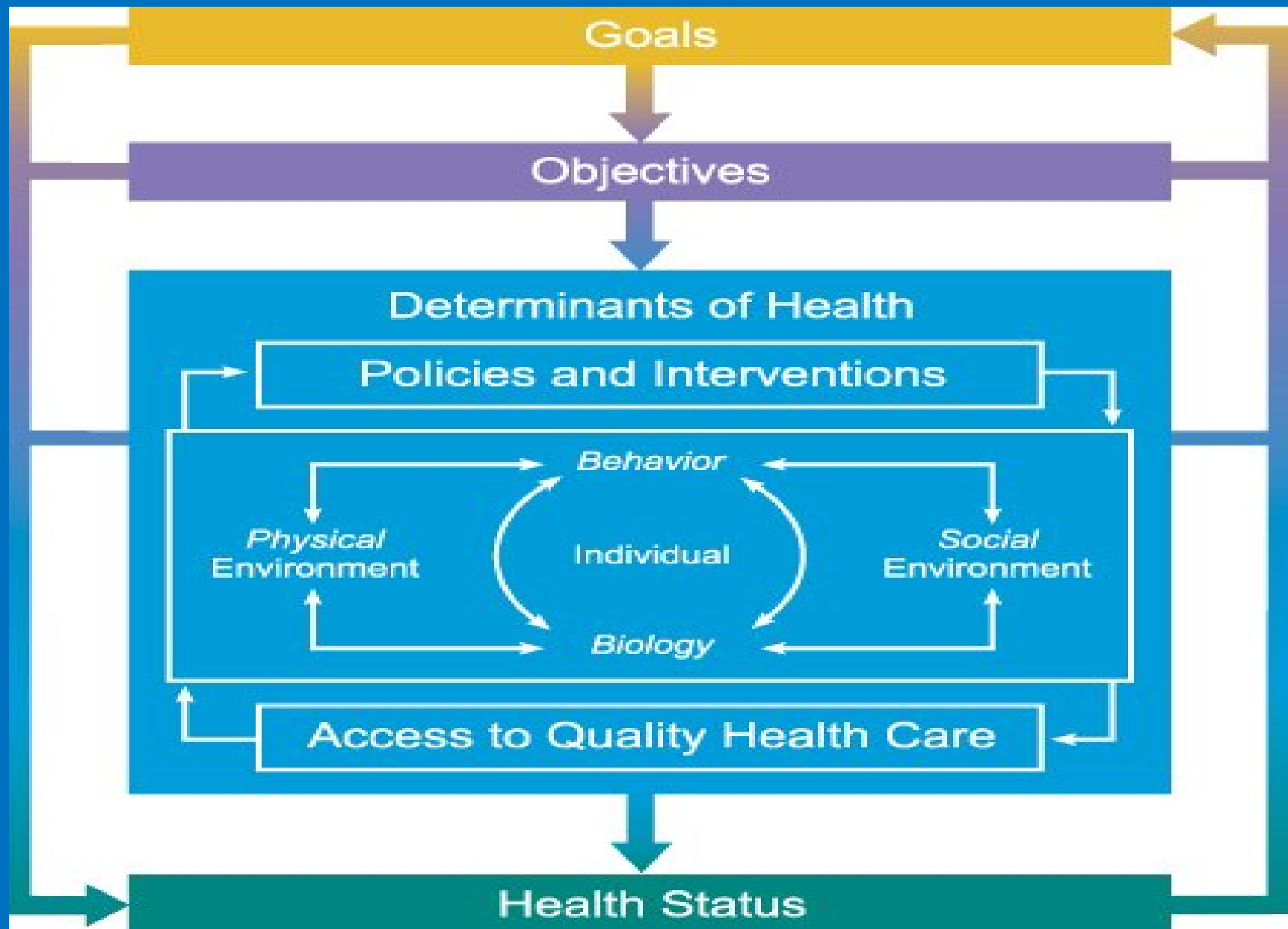
NACDD Diabetes Council
Act on Data Workgroup
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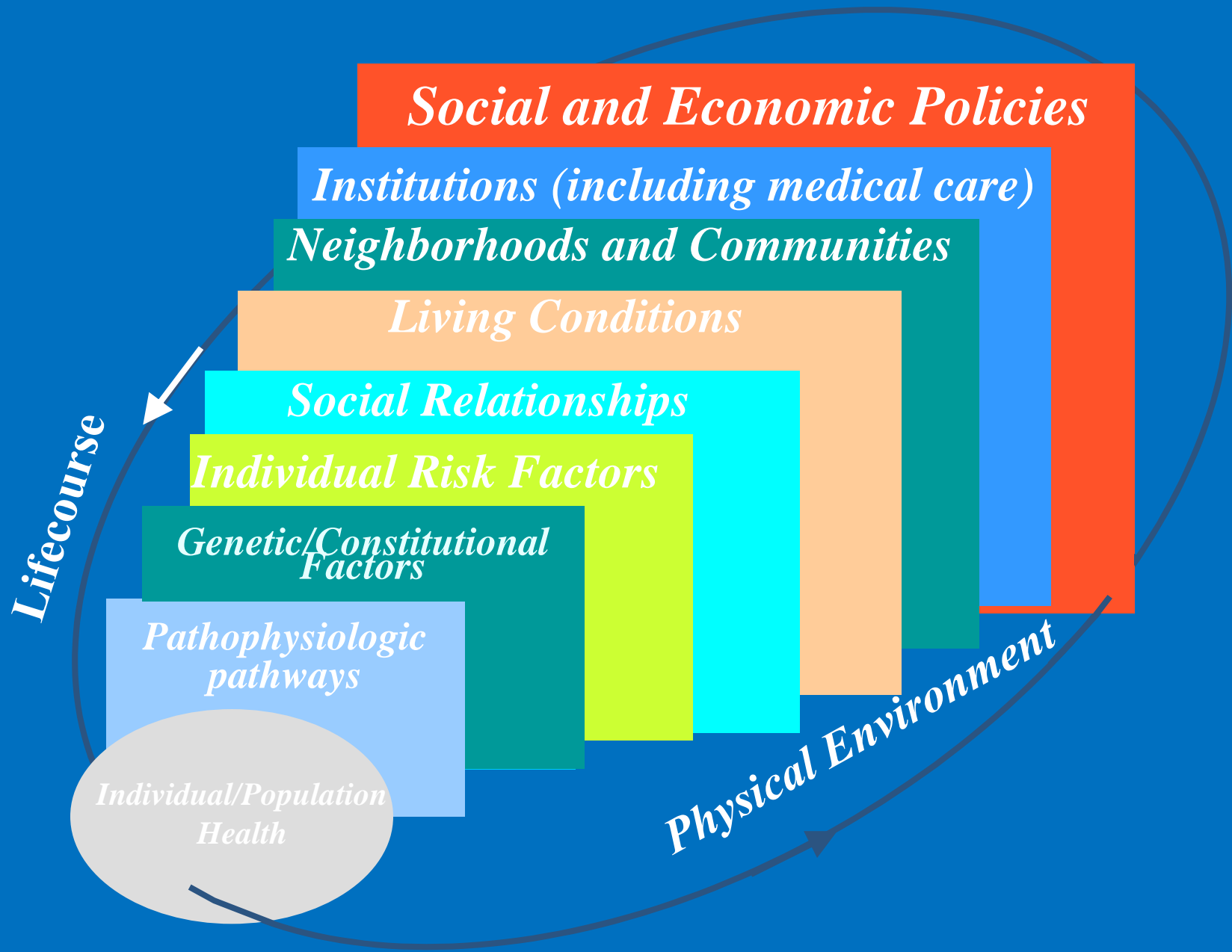
Characteristics of the social environment are inextricably linked to the health of individuals and populations

Fatality Rates for Female Passengers on the *Titanic*



Healthy People 2010





Kaplan, GA. 1999. What is the role of the social environment in understanding inequalities in health? *Annals of the New York Academy of Sciences* 896:116-9.

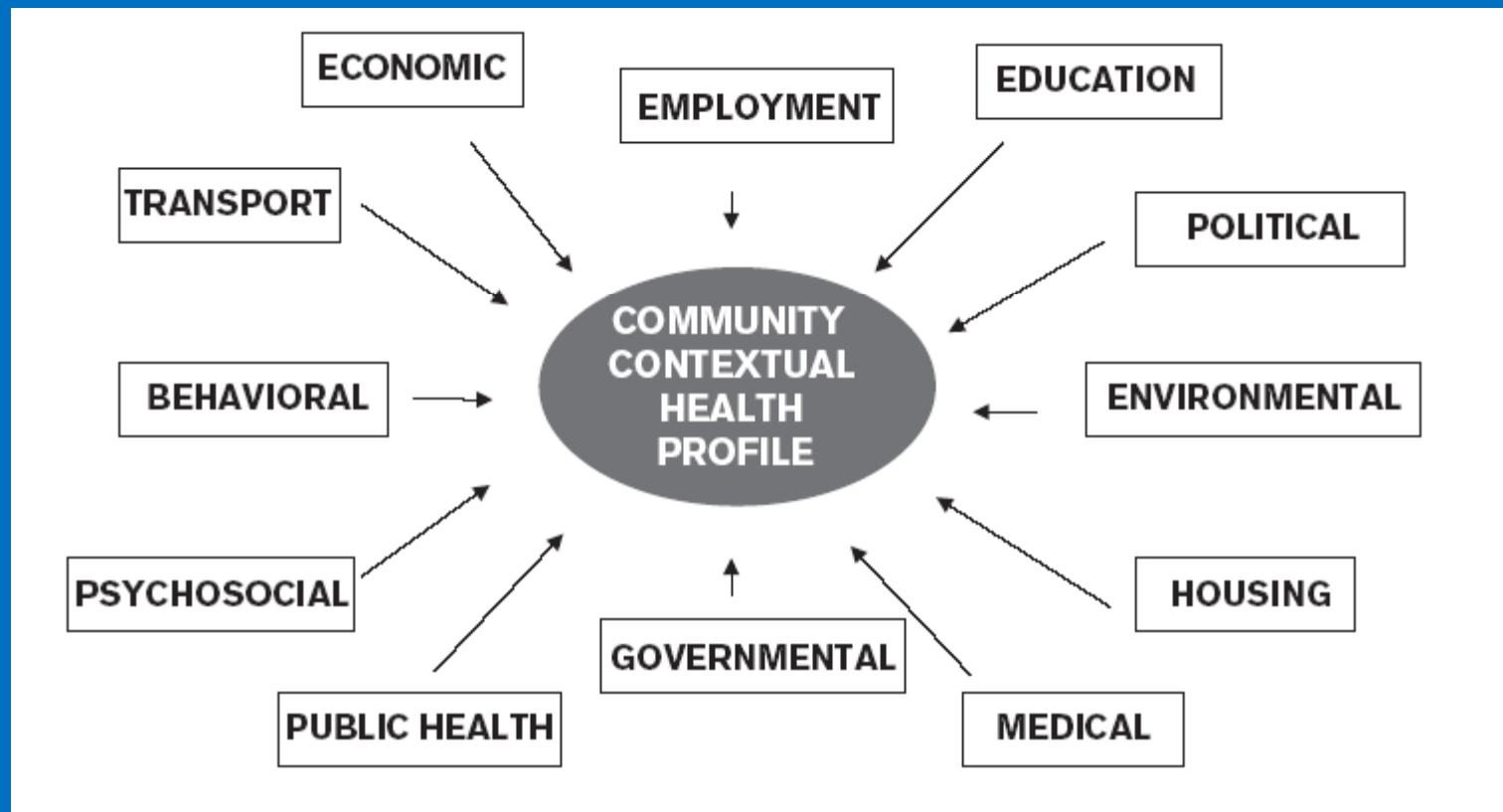
CDC Data Set Directory of Social Determinants of Health at the Local Level

- Project motivated by increasing interest in the role of social determinants of health in communities, and in identifying effective interventions at the local level
- Goals included conceptualization of ways that the social environment impacts population health, and identification of available data related to each dimension

CDC Data Set Directory of Social Determinants of Health at the Local Level

- Convened expert panel of public health professionals, policymakers, community liaisons, epidemiologists, sociologists, physicians, economists, developmental psychologists, educators, and toxicologists to reach consensus on key categories of health determinants
- Project personnel then searched for data at local levels related to each of the identified dimensions

Health-Relevant Dimensions of the Social Environment



ECONOMIC DIMENSION

- The association between greater economic resources and more optimal health is one of the most well-documented in public health research
- Economic aspects of local areas are the most frequently analyzed contextual factors in relation to health indicators
- Expert panel encouraged a broad perspective in addition to the usual summary measures (e.g., median income) to more fully assess economic status of communities

ECONOMIC DIMENSION

- Income (including disposable income, income distribution, economic segregation)
- Wealth (real estate ownership, net wealth)
- Poverty (including geographic concentration)
- Economic Development (gross metropolitan product and growth rate, industrial mix)
- Financial Services (home loan denial rates)
- Cost of Living (including income/spending ratio)
- Redistribution (tax rates, transfer payments)
- Exploitation (ratio of wages to corporate profits)

EMPLOYMENT DIMENSION

- Also a frequently analyzed contextual factor in relation to health indicators
- Expert panel suggested going beyond unemployment rates and occupational status measures to look in more detail at characteristics of jobs and the workforce

EMPLOYMENT DIMENSION

- Labor force participation and unemployment rates by race/ethnicity, sex, occupation, and industry and employment volatility
- Workforce characteristics including race/ethnic and gender diversity, skill level, and unionization
- Area business capacity
- Job access including affirmative action policies, geography of job growth, public transportation
- Occupational safety
- Job characteristics and quality

EDUCATION DIMENSION

- Most commonly used educational indicators include high school non-completion rate and median educational level
- Education tends to be thought of as a general marker for socioeconomic status rather than a factor of importance in its own right

EDUCATION DIMENSION

- Educational attainment (graduation rates, dropout rates, literacy rates, post secondary enrollment)
- Educational funding (teacher salaries, per pupil spending, proportion of funds by source)
- School characteristics (class size, student/teacher ratio, teacher turnover, segregation, curriculum quality, physical environment)
- Community educational climate (television viewing, libraries)

POLITICAL DIMENSION

- Aspects of community political participation have been found to be associated with population health status
 - Blakely et al. (2001) found that individuals in states with disproportionately higher voting participation by economically well-off people had lower average self-rated health
 - Political participation has also been considered to be a key aspect of social capital, which has been associated with more positive health outcomes

POLITICAL DIMENSION

- Civic participation
 - Voting and registration rates, ease of registration, race/ethnic representativeness of registered voters
 - Census participation
 - Donation to political parties and candidates
- Political structure
 - Race and gender representation in elected office
 - Percent of local budget for local public health
- Power groups
 - Community organizations
 - Unions

ENVIRONMENTAL DIMENSION

- Physical and chemical exposures are most commonly considered in this dimension
- The expert panel encouraged a broader focus on structural features of communities, aspects of land usage, and services related to environmental quality

ENVIRONMENTAL DIMENSION

- Air and water quality
- Environmental hazards
 - Hazardous waste
 - Pesticides
 - Climate extremes
 - Noise
- Physical Safety
 - Traffic , sidewalks
- Land Use
 - Public recreational space
 - Sanitation services

HOUSING DIMENSION

- The association between housing and health has been studied from several perspectives
 - Physical characteristics of housing, such as dampness and mold
 - Dilapidated and abandoned housing increases risk of accidental injury, emotional stress, and provides areas for criminal activities
- Growing up in crowded housing has been associated with health problems at childhood ages as well as later in life

HOUSING DIMENSION

- Housing Stock
 - Age, Value, characteristics
 - Renter vs. owner occupied, vacancy rates
- Residential Patterns
 - Homelessness
 - Segregation
 - Crowding, population density
- Financial issues
 - Percent of income spent on rent
 - Low-income housing as a percent of the total
 - Mortgage lending by race and ethnicity
 - Community reinvestment initiatives

MEDICAL DIMENSION

- This dimension encompasses a range of services including primary and specialty care, emergency services, home health care, long-term care, mental health and oral health care
- Particular attention is paid to aspects of access to services

MEDICAL DIMENSION

- Types of Services Available
 - Primary and Specialty Care
 - Number of providers, certification, reimbursement
 - Emergency Services
 - Home Health Care Services
 - Long-Term Care
 - Oral Health Care
- Access and Utilization
 - Rates of insurance coverage by type
 - Race/ethnicity staff to population ratios
 - Provision of care in total and indigent care
 - Hospitalization rates for ambulatory care sensitive conditions

GOVERNMENTAL DIMENSION

- This dimension includes characteristics and functioning of local area governments, such as funding, policies, and quality of services
- A seldom-considered aspect of local government identified by the expert panel is degree of municipal fragmentation (large numbers of small government entities existing in a metro area). High levels of fragmentation have been associated with resource imbalances and less effective health policy

GOVERNMENTAL DIMENSION

- Funding
 - Revenue from federal, state, and local sources, including taxes and lottery funds
 - Debt burden
- Services
 - Privatization
 - Safety net
- Municipal Fragmentation

PUBLIC HEALTH DIMENSION

- Programs
 - Screening, nutrition, family planning, chronic disease control, home visiting, outreach, school-based clinics, substance abuse prevention, domestic violence program, mental health services, immunization
- Regulation/Enforcement
 - Sanitation, food safety, health violations
- Funding

PSYCHOSOCIAL DIMENSION

- There has been longstanding interest in the organization of social life and implications of interpersonal interactions for emotional and physical health
- More recently, health effects of social capital and social cohesion have garnered much research interest, although definitions and operationalizations of these concepts are sometimes controversial

PSYCHOSOCIAL DIMENSION

- Volunteer organizations
 - Types, functions, number of members
- Union participation
- Charitable giving
- Jails
 - Expenditures, incarceration rates, crime rates
- Civil lawsuits
- Police services

BEHAVIORAL DIMENSION

- The focus here is on behavior areas that are among the nation's leading health indicators and that have been cited as major determinants of premature morbidity and mortality
- For each behavior, we examined specific aspects of communities that might influence the degree to which they might be adopted by resident, and where appropriate we include counseling and treatment services

BEHAVIORAL DIMENSION

- Tobacco use
 - Smoking rates, cessation programs, workplace/public restrictions, cost of cigarettes
- Physical activity
 - School PE requirements, recreational facilities
- Diet/obesity
 - Consumption patterns, food availability, fast food establishments, school nutrition programs
- Alcohol and illicit drug use
 - Number of beer and liquor stores, treatment services, syringe exchange programs
- Violence
 - Firearm availability, exposure to violence

TRANSPORT DIMENSION

The transportation system in place in communities has multiple implications for health

- Motor vehicles are the leading cause of injuries
- Nature of transportation and volume influences the types and magnitude of pollution
- Transportation influences employment patterns and therefore economic well-being

TRANSPORT DIMENSION

- Safety
 - Seatbelt/child restraint and helmet use, graduated drivers' license, DUI and speed limit enforcement
- Infrastructure
 - Transport systems
 - Roads, quantity, capacity, and quality
 - Expenditures
- Traffic patterns
 - Spatial location of jobs, traffic volume, car pooling, commuter taxes

Summary

- This project conceptualized dimensions of social and community context that are plausibly linked to health
- Sources of data related to these dimensions at local levels available as of 2002 are provided—given the broad interest in the effects of context on health, the number of data sources is likely considerably greater at present and will continue to increase in the future
- There is no single pathway to health, and therefore there is not a unique set of characteristics that will be universally important for all health outcomes—the data directory serves as a resource from which policymakers can identify a range of relevant indicators