

# Health Systems Research: Applications to Treatment for Substance Use Disorders

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# Alcohol and Drug Treatment Systems in Public Health Perspective

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# Purpose of presentation

- To describe how substance abuse treatment services can be conceptualised from a public health perspective
- To discuss the kinds of research that could be undertaken from this perspective

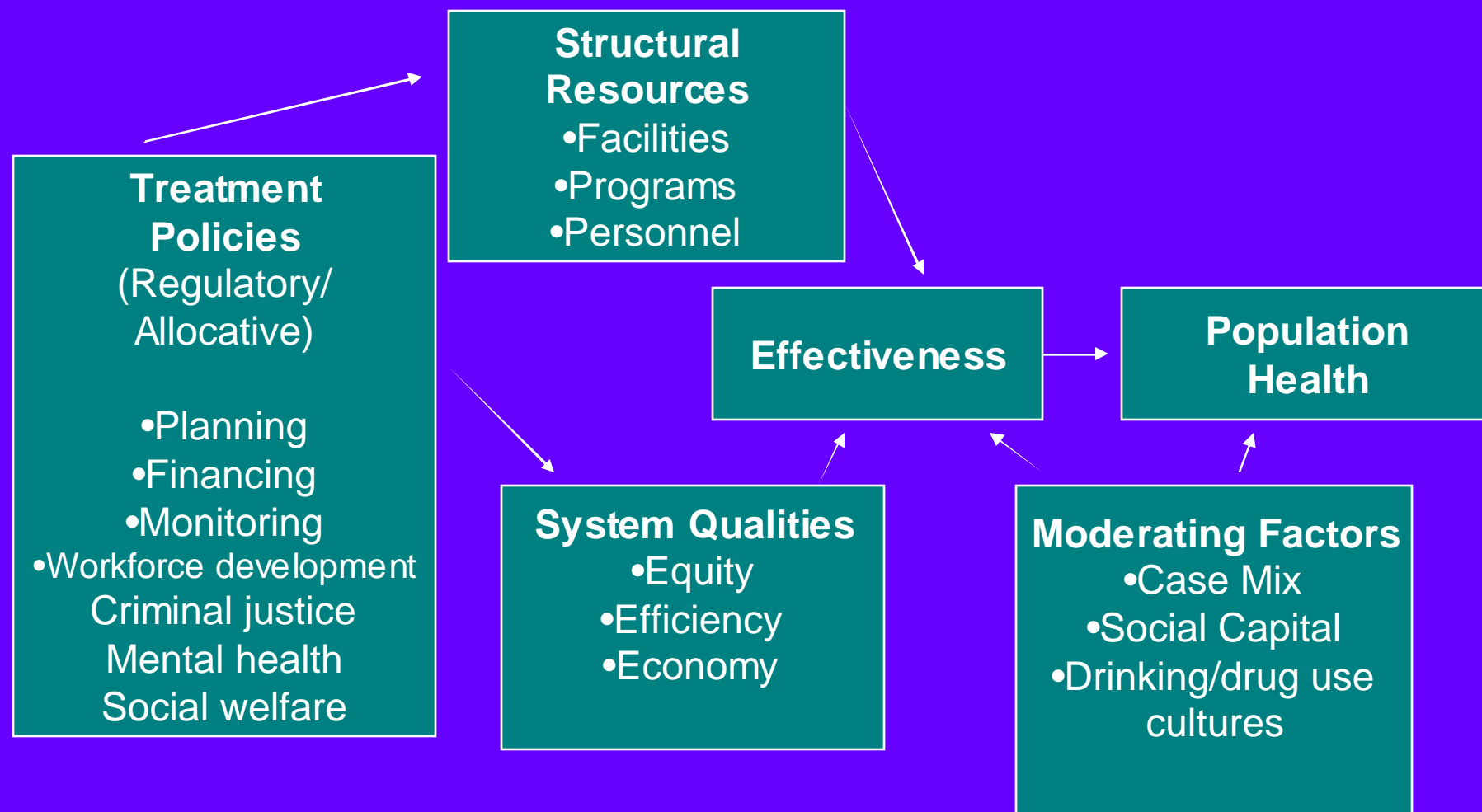
# Why a systems perspective?

- Treatment for substance use disorders has expanded dramatically in developed countries after WWII – but often in a fragmented and arbitrary way.
- Resource allocation decisions and treatment policies have a major effect on the amount and organization of treatment services
- Most treatment research deals with the effect of individual-level interventions on individual-level outcomes
- Systems research deals with the effect of different service configurations on population-level outcomes

# Treatment Service System

- An arrangement of facilities, programs, personnel designed to function in a coordinated way
- A collection of resources (facilities, programs, personnel), tasks (care, cure, control) and linking elements that make it possible to coordinate resources to accomplish key tasks
- Includes linkages between specialized care and other types of services, such as mental health, general medicine, social welfare, criminal justice and mutual help organizations

## Conceptual Model of Population Impact of Treatment Systems



Policies → System Characteristics → Effectiveness → Population Impact

# Service System Qualities

- **Equity** – acceptability, appropriateness, accessibility to population subgroups
- **Efficiency** – integration of services to meet population needs: referral, diagnosis, detox, rehab, after-care
- **Economy** – organization of available services to minimize cost and maximize effectiveness

# FROM EFFECTIVENESS TO POPULATION EFFECTS

- Most treatment research is designed to investigate efficacy and effectiveness
- Treatment can: a) reduce alcohol and drug use, b) improve psychiatric, medical and employment outcomes, c) reduce risk of overdose, crime, HIV infection.
- Treatment of drug abuse may have supply side effects (e.g., NTORS, DATOS)
- Treatment of heavy drinkers may affect the social ecology of drinking subcultures



# Population impact measures

- Mortality from alcohol- and drug-related causes: cirrhosis, pancreatitis, alcoholism, suicide, AIDS, hepatitis C
- Hospitalizations for alcohol- and drug-related conditions
- Alcohol and drug-related criminality
- Other alcohol- and drug-related problem rates

# Research on population effects of alcohol treatment

- Mann et al (1992) – increases in the proportion of alcoholics in treatment linked to decreases in liver cirrhosis morbidity
- Holder and Parker (1992) - increases in treatment linked to declines in cirrhosis mortality
- Smart and Mann (2003) – increases in AA membership and amount of treatment linked to decreased alcohol problems

# **Integrating Substance Abuse Screening and Other Services into Primary Care**

# Why intervene in Primary Health Care?

- ❖ **Misuse of alcohol, tobacco and other substances is prevalent in PHC settings**
- ❖ **Substance use often linked to presenting symptoms (e.g., injuries, hypertension)**
- ❖ **PHC personnel are respected and trusted**
- ❖ **Interventions are effective in many societies**
- ❖ **Stigma can be minimized in PHC setting**
- ❖ **Early intervention and secondary prevention**

# Conceptual Model of Alcohol/Drug Treatment System and Its Connections With Other Sectors



# Conceptual Overview of SBIRT

## Screening, Brief Intervention, and Referral to Treatment



# CONTRASTING MODELS

- TRADITIONAL
- Acute care
- Treat disorder
- Accountable for individual patients
- Fill treatment slots
- Separate programs
- Case management
- PUBLIC HEALTH
- Continuum of care
- Secondary prevention/disease management
- Provide care at most appropriate level
- Integrated delivery systems

# Population Health Care Management

- Defined by geographic boundaries as well as age, sex and other characteristics
- Allocation of resources to preventive, curative, restorative and rehabilitative services
- Design interventions and monitor services for entire population
- Organize providers into networks
- Shift utilization to lower cost settings or most appropriate level of care



# Benefits of a systems approach

- Systems concepts and research may help to improve access, efficiency, economy, effectiveness, continuity of care, thereby improving the population impact of treatment services.
- Focus attention on components having greatest impact on morbidity and mortality
- Cost implications and resource allocation
- Making the system fit the needs of the community, rather than the professional group

# Measurement and Research Needs

- Treatment mapping
- Needs assessment
- Systems analysis
- System monitoring
- Comparative research