The Essential Role of Social & Behavioral Science in Preventing Emerging Infectious Diseases

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Putting it all in context

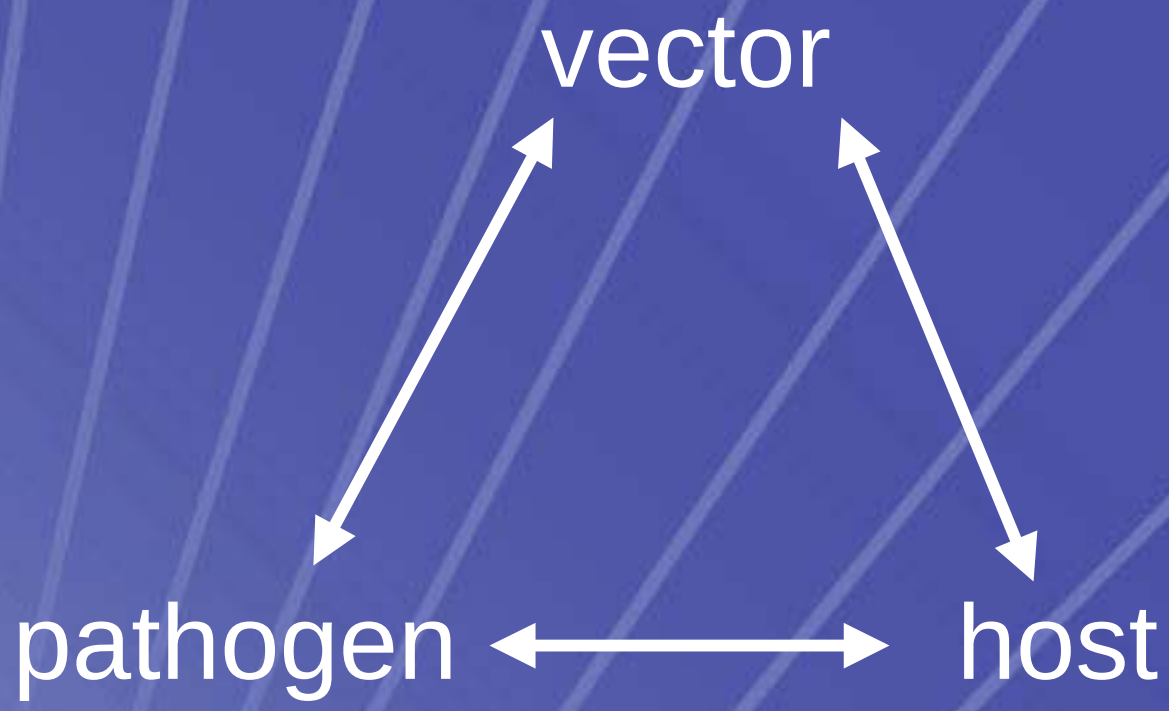
- It doesn’t matter if you know how to solve a problem if that solution doesn’t work in the field.

So, what do we mean by social & behavioral science?

- Study of ***how*** people and societies behave and ***why*** people and societies behave the way they do
- Systematic approaches to examining the paradigms that drive people and societies
- Hypothesizing about, implementing, evaluating and documenting ways to affect human behavior and to intervene in processes affecting health

Applying Behavioral & Social Science

- public information
- health communication
- health education
- risk communication
- behavior change research
- participatory research
- community-based intervention
- cost-effectiveness research
- access and utilization assessment
- needs assessment
- evaluation of programs and strategies
- institutional ethnographies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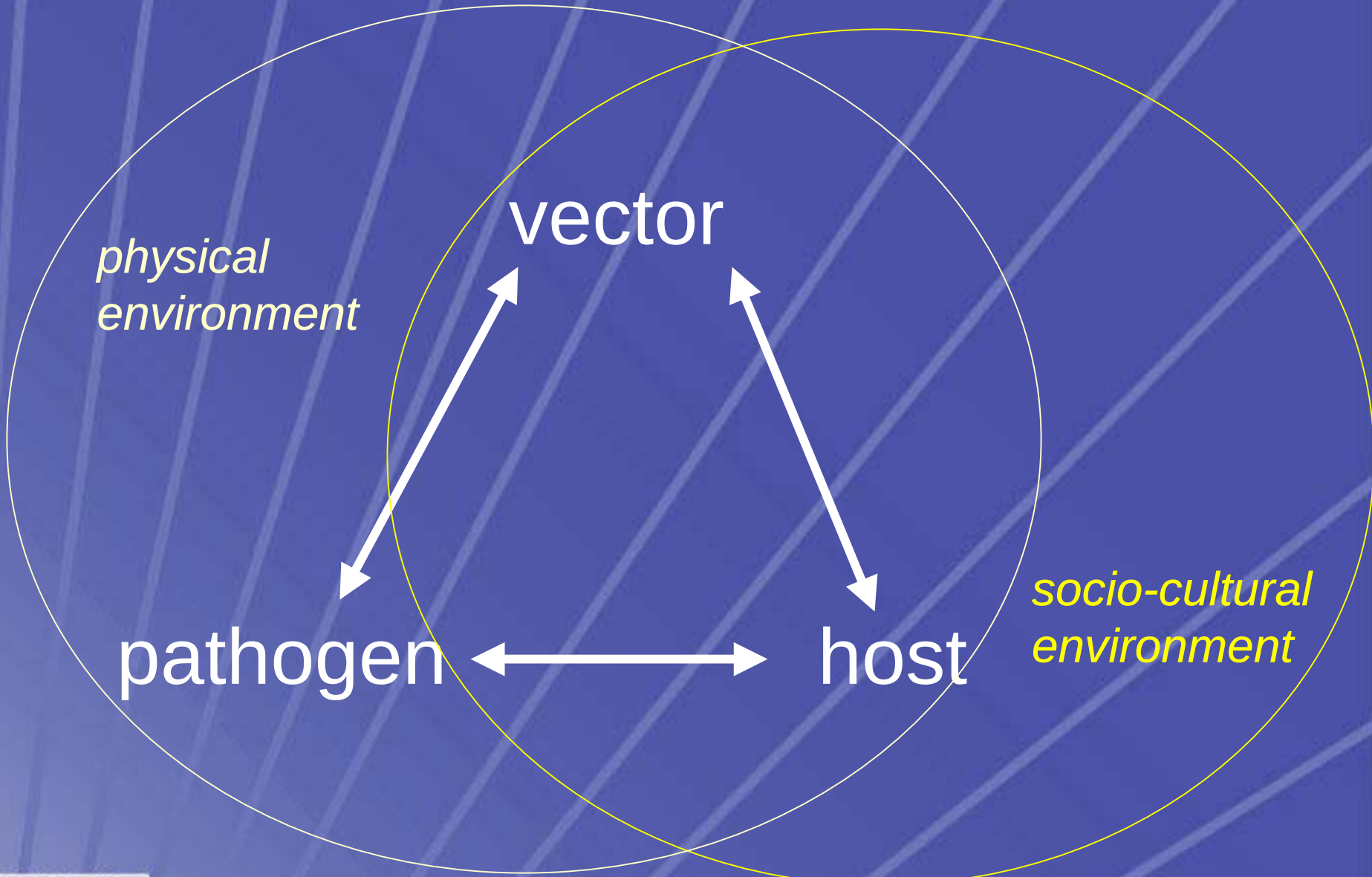
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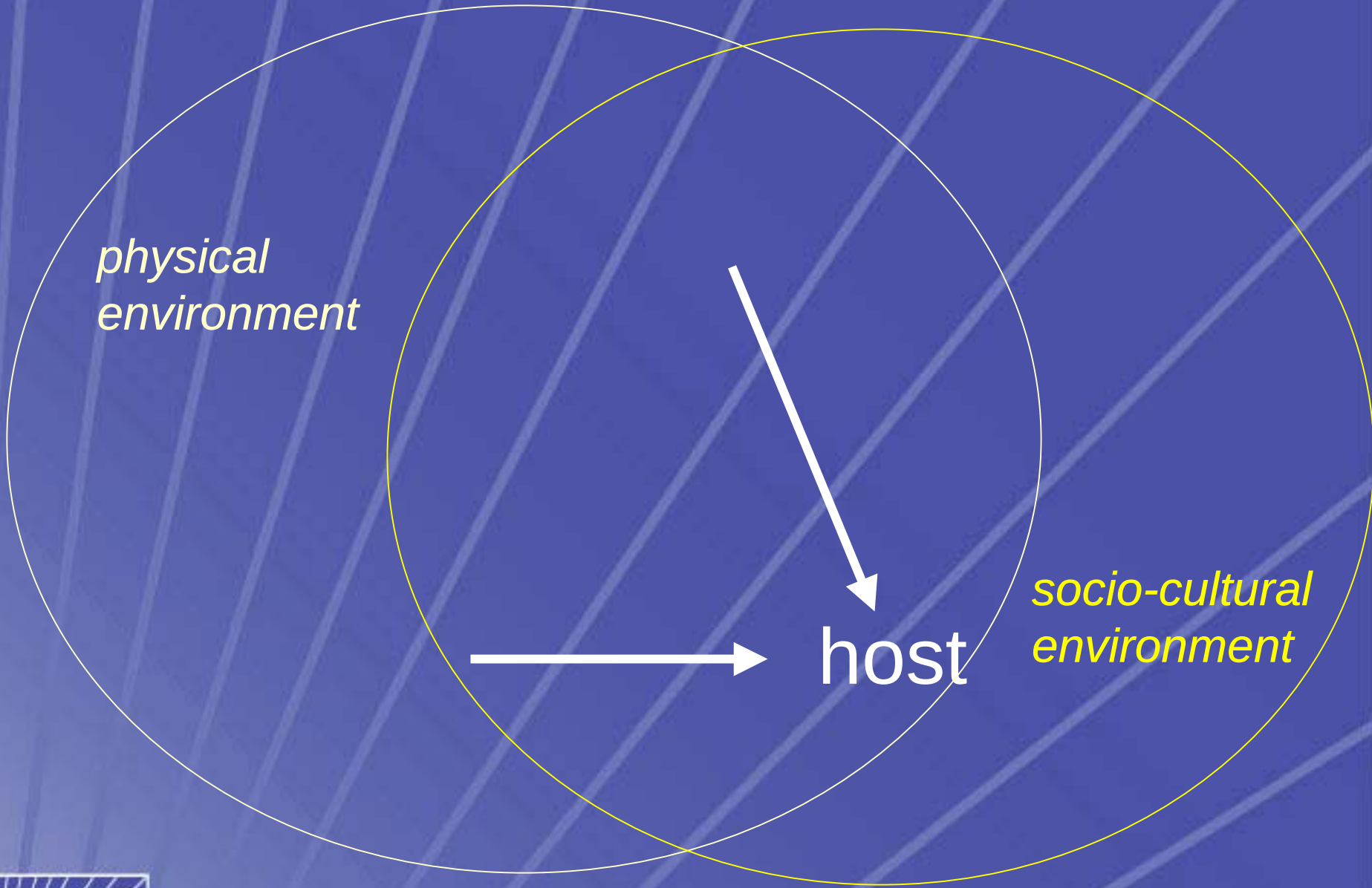
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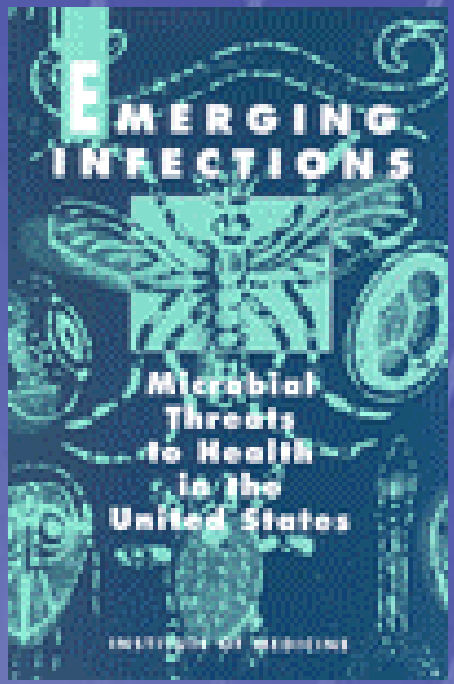
What is the role of social & behavioral science vis-à-vis EID?

- Examine antecedent & predetermining factors for disease
- Develop & refine prevention strategies and paradigms
- Participate in thinking about the bigger picture

Determinants of Disease



- Factors in Emergence:
  - Human demographics and behavior
  - Technology and industry
  - Economic development and land use
  - International Travel and commerce
  - Breakdown of public health measures
  - Microbial adaptation and change

Diseases of “modernity”

- Epidemiologic, Demographic & Health Transition
- Development
- Globalization

Asking what are the antecedents and predetermining factors?

- *St. Louis encephalitis:* What determined the level of support for mosquito abatement districts? What barriers to use of personal prevention? What structural factors influence risk?

- *HIV:* What are underlying power issues that influence sexual activity? How do patterns of urban change and patterns of migration influence HIV transmission?

Develop & refine prevention strategies

- We often have an idea what we want people not to do
- Sometimes we know some things that we want people to do

- But this is not always communicated in a way that allows the message to be effective ...

Develop & refine prevention strategies

- behavioral theories
  - *knowledge, attitudes, behaviors, modeling, steps of change, harm reduction….*
- knowledge ≠ action
- keep public health from wasting time and money and from alienating people
- we need to be brand managers for infectious disease prevention

Examine paradigms for prevention

- Question and operationalize prevention strategies
  - What do we mean by community participation and community mobilization, for instance?

Ask the big questions

- Not just how do we ameliorate negative effects on health, but how can the dynamics be changed?
- How does public health action fit into the society as a whole?

Examine with historical perspective

- Integrated vs. vertical approaches
- Individual vs. collective rights
  - "Perhaps we should have further debate on the social context for constraints and persuasion to contain the spread of infectious agents." *J. Lederberg EID 3(4)*

Barriers to including social & behavior perspectives

- Pathogen and vector orientation
- EIDs require an integrated approach – beyond public health alone
- Poverty, development, migration… these are huge problems and approaching them can be daunting

Opportunities

- Use of social and behavioral science can extend the effectiveness of “cosmopolitan” medicine and public health
- Increase the ability to put interventions in context
- Asking not just “How do we do this?” but also “Is this what we should be doing?”

“No one has the right to sit down and give up,

there’s too much work to do.”