



Coordination of Disease Surveillance, Detection, Diagnostics and Reporting

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The other challenges...

- n Information architecture
 - n Building surveillance into business systems
- n Terminology
- n Communications protocols
- n Confidentiality
- n Public good
 - n Can't rely on 3rd party payers or user fees



“Begin with the end in mind”

Stephen Covey

- n Why coordinate?
 - n To improve public health
- n What is public health?
 - n Community health (population)
- n Components of public health?
 - n Assess to identify problems, set priorities
 - n Formulate policy to address...
 - n Promote health, prevent, provide access



Paradigm Paralysis (part 1)

- n Health focus is individual
- n Health is absence of disease
- n Infectious disease all about agent
- n Zero risk is achievable
- n Success is eradication/cure
- n Benefits accrue primarily to 1st world



Paradigm Paralysis (part 2)

- n Public health function is to react
- n Reaction requires agent detection
- n Urgency dictates priority
- n Answers lie solely with technology
- n Data = information confusion
- n Education = memorizing facts
- n Regulatory compliance or public health?



Drivers of current paradigm

- n High health status of US
- n “If it ain’t broke, don’t fix it”
- n John Wayne mentality
- n War analogy: win-lose
- n Disciplinary silos
- n Scarcity mentality
- n Parochialism



An alternative world view (1)

- n Health focus is global society
- n Health = well being
 - n Sound in body, mind and spirit
- n Public Health function is health promotion
- n Answers involve people, politics, partners
- n Public health is transdisciplinary effort
- n Goal is risk management



An alternative world view (2)

- n Microbes are ubiquitous
 - n Microbial ecology – adaptive evolution
- n Infectious disease is product of agent, host, environment
- n Don't need microbe ID to manage risk
- n Surveillance informs policy, guides action
- n Success is homeostatis



And it's all about politics...

- n Wherever 2 or more people are...
 - n Often conflicting interrelationships among people
- n Influences of culture: society & organizations
- n “Coordination” is inherently political
 - n To harmonize in common action or effort
- n People skills underpin coordination
 - n Technology alone can't remedy



Defining optimal surveillance

- n Integrated dynamic system
 - n Ongoing data collection
 - n Real time analysis to generate information
 - n Use information to guide policy and action
 - n Process feedback for continual improvement
- n Holistic approach
 - n Human, domestic animal, wildlife, plants
 - n Information to inform risk management



Way forward

- n Begin with the end in mind
- n Prioritize public health goals
- n Complement agent surveillance with host and environmental monitoring
- n Recognize societal stability and economics as critical to public health
- n Anticipate, adapt, and manage



Specifics... (1)

- n Change prevailing paradigms
 - n Celebrate small successes
 - n Reward change
 - n Document deliverables/success
- n Create new public health professional
 - n Transdisciplinary
 - n Adaptive, risk management orientation
- n Strengthen infrastructure



Specifics... (2)

- n Global perspective
- n Interoperability
 - n High tech AND low tech
- n Experiential learning
- n Examine ethics of surveillance
 - n If one can detect a disease and respond effectively, does this have to be public?
- n Foster public-private partnerships



SWOT: Strengths

- n Technology explosion
- n Information age
- n Recognized importance of surveillance



SWOT: Weaknesses

- n Disparities
- n Surveillance-action disconnect
- n Disciplinary silos



SWOT: Opportunities

- n Promote overarching, integrative plan
- n Prioritize steps and assign resources
- n Change the prevailing paradigms



SWOT: Threats

- n Unintended consequences
- n Increases 1st world/3Rd world divide
- n Lack of leadership...



We'll know we've succeeded

- n When we can anticipate new threats
- n When the system can adapt fluidly
- n When partnerships are the norm
- n When risk management is the focus
- n When we can document global incremental improvement in public health