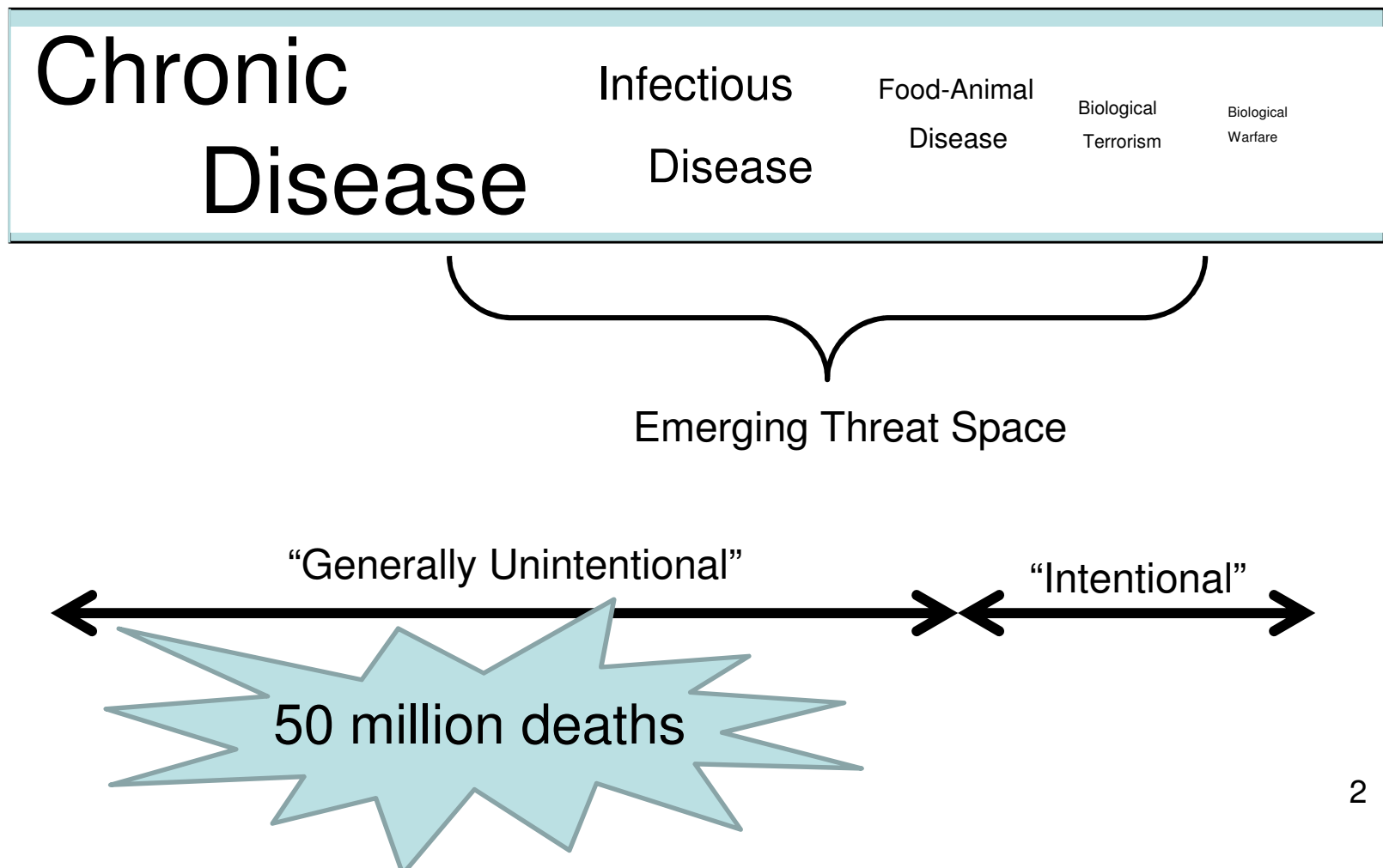


Global Food and Health Security IS National Security

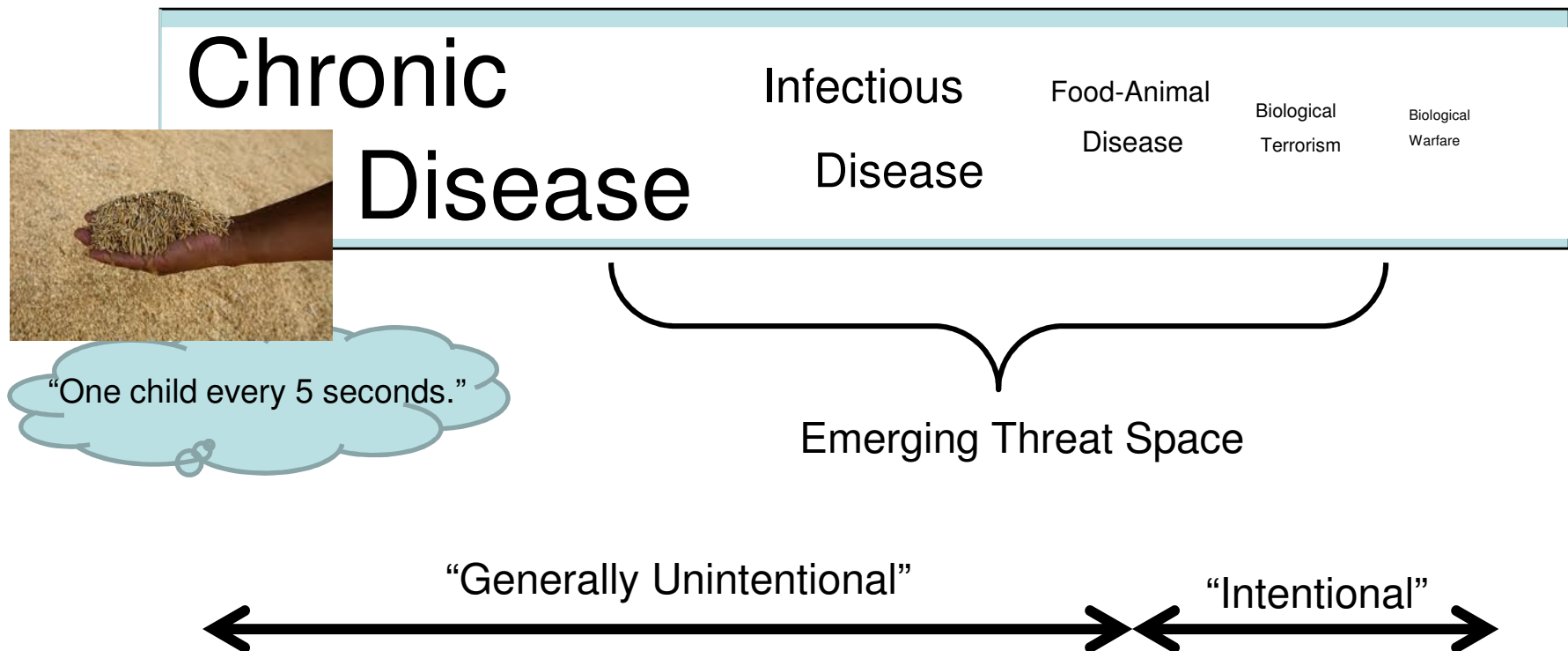


David R. Franz
MRIGlobal and OSD/NCB

A 'World' of Health Risks



A 'World' of Health Risks



A 'World' of Health Risks



Chronic
Disease



"One child every 5 seconds."

Infectious
Disease

Food-Animal
Disease

Biological
Terrorism

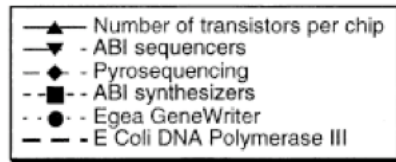
Biological
Warfare

Emerging Threat Space

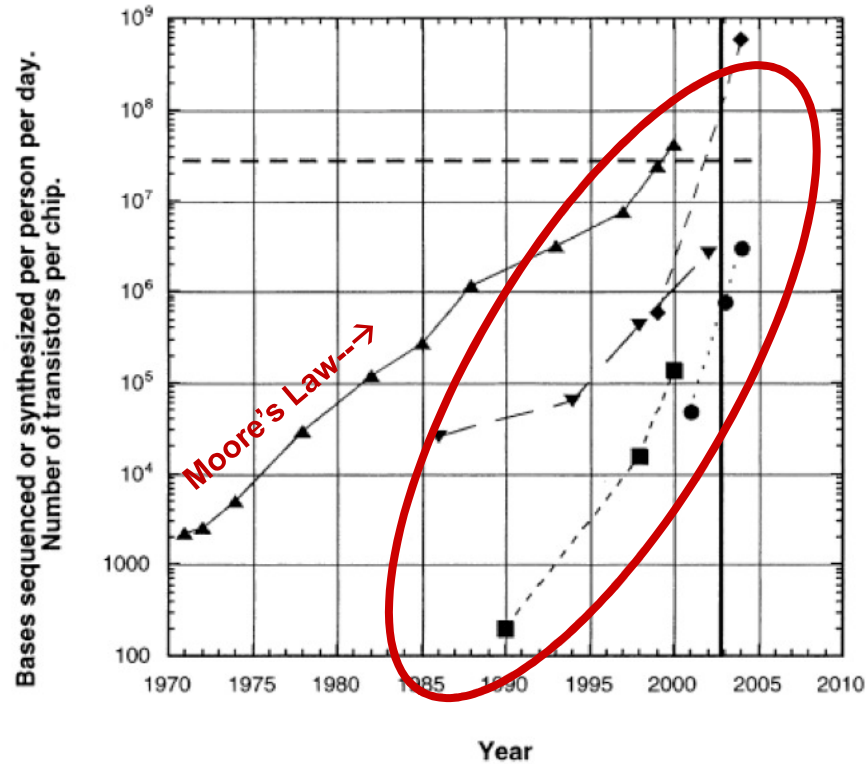
"Generally Unintentional"

"Intentional"

The Carlson Curve



Productivity Improvements in DNA Synthesis and Sequencing
(as of October, 2002)



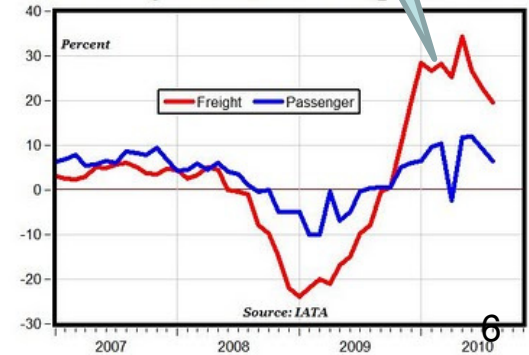
Measures of progress in biotechnology

Global Travel and Transport



Global Competition

**International Air Travel
% Increase, 12-Month Basis
January 2007 to August 2010**



Our National Experience

Observations

- Technical and Political Surprise
- Growing importance of Intent



“We don’t know more about the biological weapons threat than we did five years ago, and five years from now, we will know even less.”

Senior CIA Official/WMD Commission

A 'World' of Health ~~Risks~~

Opportunities...to work together



Chronic
Disease



"One child every 5 seconds."

Infectious
Disease

Food-Animal
Disease

Biological
Terrorism

Biological
Warfare

Emerging Threat Space

"Generally Unintentional"

"Intentional"

50 million deaths

Community Perspectives

on Health Engagement

Security

“It won’t stop Terrorists.”

Health

“I don’t want to ‘do’ security.”



International Colleague

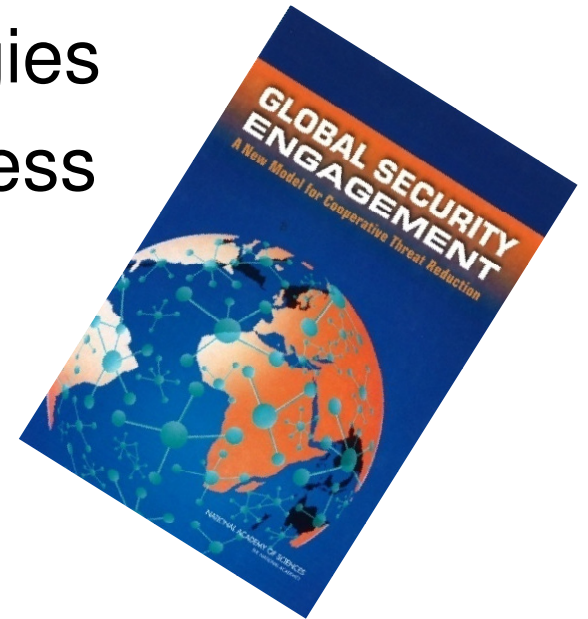
“I trust you,
but not your government.”

Legislator

“It’s not national security.”

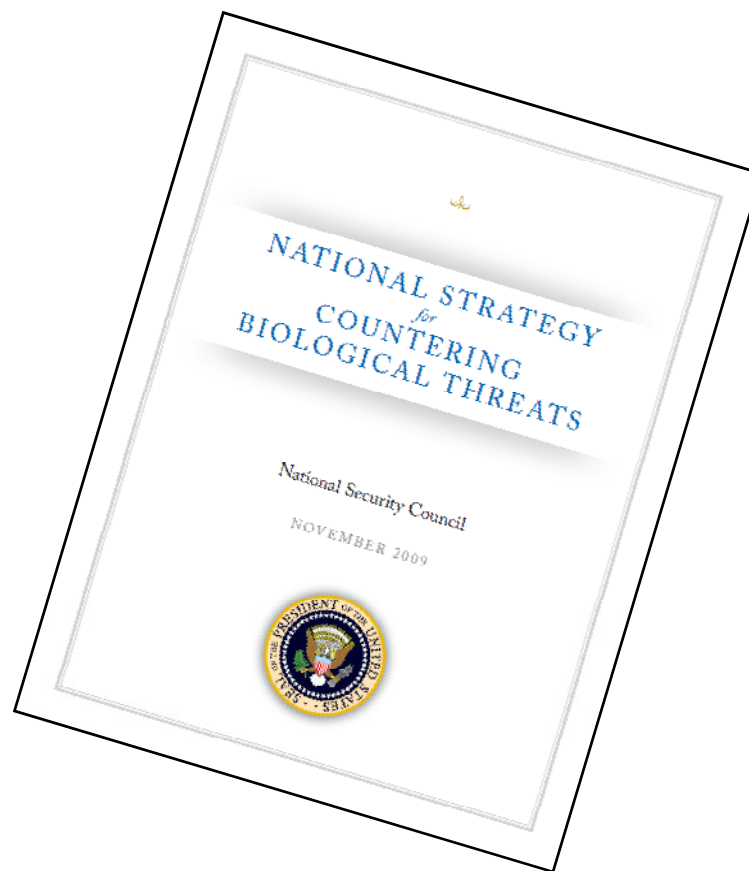
The Space between Health and Security

- The 'dual-benefit' of countermeasures
 - Public health, diagnostics, disease surveillance
 - Education, basic research
- The same expertise and technologies
- The value of global health awareness
- Health as an engagement tool
- The soft power benefits



The Administration's Strategy for Countering Biological Threats

- **Goal: PROTECT** against the misuse of the life sciences to develop or use biological weapons.
- **Objectives:**
 - **P**romote global health security
 - **R**einforce norms of safe and responsible conduct
 - **O**btain timely and accurate insight on current and emerging risks
 - **T**ake reasonable steps to reduce the potential for exploitation
 - **E**xpand our capability to prevent, apprehend, and attribute
 - **C**ommunicate effectively with all stakeholders
 - **T**ransform the international dialogue on biothreats



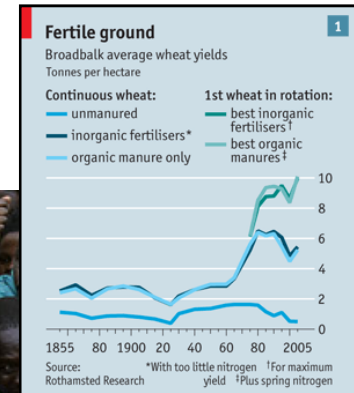
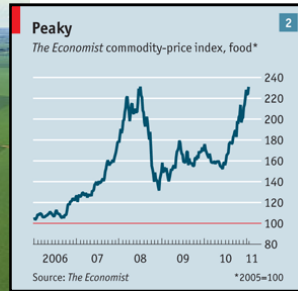
Health & Food Engagement: What do we have to gain?

Hypothesis: *The **PROCESS** of working together, on **HARD LIFE-SCIENCE PROBLEMS, INTERNATIONALLY, ACROSS THE SPECTRUM** of biological challenges will:*

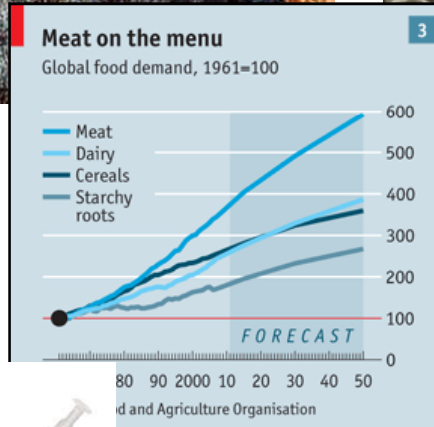
- 1) **Reduce the impact** of the left end of the disease/food/water-lack burden;
- 2) provide some **transparency** regarding capabilities to do harm (with biology);
- 3) and, maybe, **undermine some popular support** for terrorism (broadly).
- 4) Therefore.... **reduce the likelihood** of the misuse of all technologies...

Some are testable... 12

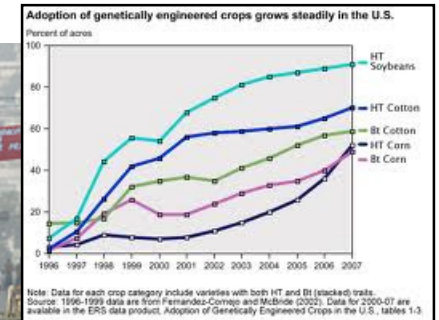
It's not simple....



Brazil



Kenya



Pakistan



Haiti

...and Non-traditional Relationships *for food safety and food defense*

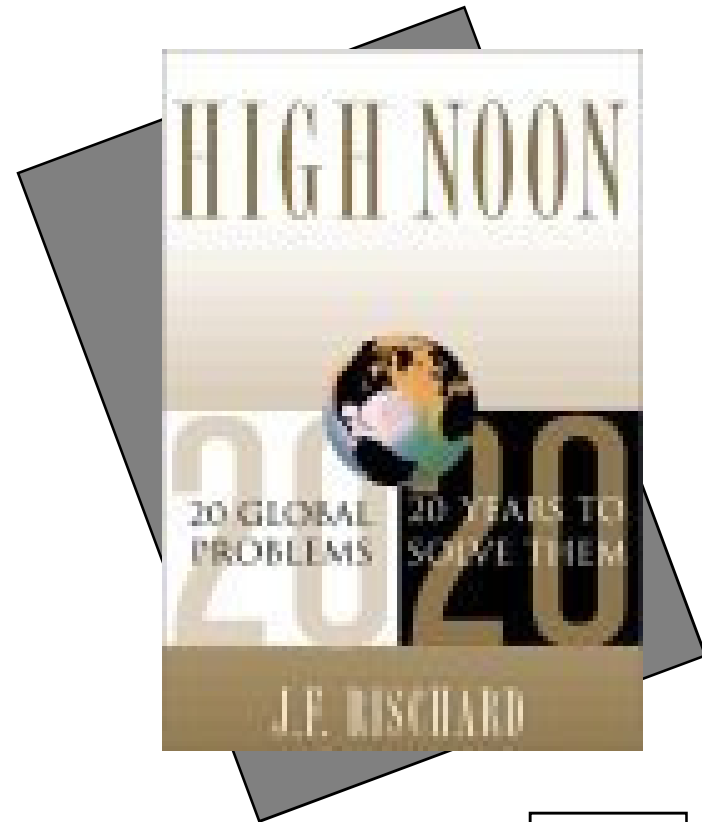
**High Noon:
20 Global Problems
20 Years to Solve Them**
J.F. Rischard

From hierarchy to network
New kinds of partnerships: “rough consensus”
-business
-government
-civil society

Global Issues Networks: “Messy but Flexible”

Membership ~ Knowledge related

- Speed (minimize boot-up and delivery times)
- Legitimacy
- Diversity
- Compatibility with Traditional Institutions



200

2

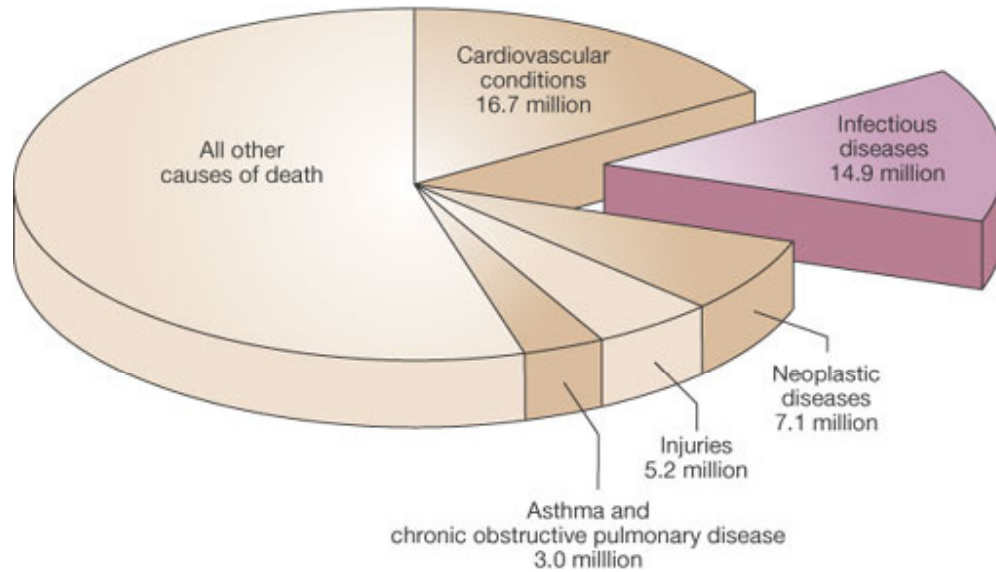
“NGI”: each of us can be one...

“A person who strives for the betterment of society and believes in a good cause is an NGI.”



Dr. Anwar Nasim, National Commission on Biotechnology, Pakistan

Emerging Infectious Disease



A 'World' of Health Risks

