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Disclaimer

The information and views presented are those of the author, and do not necessarily reflect those of the US Department of Defense, US Naval War College, DARPA or the organizations and institutions that have provided support for this work.
COVID-19

• **NOT a bioweapon**

Yet...

• Clear and present threat to biosecurity

• Multi-dimensional, interactively DISRUPTIVE effects
  • Biological
  • Psychological
  • Socio-economic
  • Political
Demonstration of Biosecurity Vulnerability

• **Preparedness Process**
  • Infrastructure and Coordinated Response Functions
  • Surveillance
  • Quantification
  • Readiness: Review, Revision

• 2010 NATO Moldova Model

• Crimson Contagion Exercise

• 2019 Report to Senate Intelligence Committee


Surveillance: Intra-national

• Self-reporting
• Systematic reporting
• Combinatory approach(es)
• Position and activity ‘mapping’

Techniques and Technologies

Personal communication tagging (e.g.- iPhone apps)
Immunity ‘passports’/chips
EMR access
“Protective Panopticon?”
Surveillance: Inter-national

- Literature Tracking
  - Self-reporting
  - Systematic reporting
  - Comparative analyses

- Activity Tracking
  - Explicit
  - Implicit
  - Effectual (‘Cui bono? Cui malo?)

- Talent-position and -movement ‘mapping’
  - Overt
  - Tacit
  - “Strings”
Data Acquisition and Tracking

• Across domains
  • Cellular-to-social

• Across levels
  • Individual, cohorts, groups, populations

• Across geographic locales
  • Complete geo-spatial access

• Across time
  • Individual and historical timespans

• Across groups
  • Comparatively and normatively
Individual Data
Group-analytic Data
The “Black Box” approach
Caveats

• If it’s assessable, it’s accessible
• If it’s tagged, it’s targetable
• *If it’s stackable, it’s hackable*
• What’s hackable is manipulable
• What’s controllable is corruptible
Issues...Tensions...Conflicts

Dilemata

• Prevention
• Protection
• Public Health

• Privacy
• Personal Liberties/Rights
• Potentially Punitive Implications
Strategic Envisioning – and Engagement

Vista of:

- **Probability**: Present to 5 years
  
  “What exists now, and ‘soon’…”

- ** Possibility**: 5 to 10 years
  
  “Given probabilities, what might occur…”

- **Potentiality**: 10 to 25/30 years
  
  “Given possibilities, what could be done with them…”
Core Questions and Issues

• What do we do *with* the information and capability we have?
• What do we do *about* the information and capability we don’t?
• Given what *can* be done, how do we (and who will) decide upon what *should* be done?
• Will be able to do what we decide we should?
Whole of Nation approach required to identify, characterize, counter, and exploit/prevent biosecurity risks and threats to United States’ public health and socio-economic stability.

Four Thrust Strategy

- **Thrust 1**: Increase Awareness
- **Thrust 2**: Quantify the Threat
- **Thrust 3**: Counter the Threat
- **Thrust 4**: Prevent/Delay Future Adversary Effectiveness
Thrust 1: Increase Awareness

Thrust 2: Quantify the Threat

Thrust 3: Counter the Threat

Thrust 4: Prevent/Delay Future Adversary Effectiveness

Academic Institutions
Research Centers
National Labs
Department of Defense
Law Enforcement
State Department
Intelligence Community
Industry
Intelligence Community
Key Steps

Core premise: *Civic Institutions May Not Be Ready...*

• Need for Medical Information Non-discrimination Act  
  (MINA; pro GINA)
• Need for programmatic biocyber-security
• Need for ongoing “surveillance of surveillance”
• Need for discourse/dialog
• Need for communication
• Need for cooperation  
  (Intra-nationally; Inter-nationally – inclusive of “Cooperative Competition” Models)
Biosecurity risks/threats are increasing: clear and present danger to U.S. national security and stability

Establish PMO/POR *now*

- Fund research in technologies, innovations, countermeasures, and solutions
- Develop capabilities to address and defeat evolving biosecurity (natural, kinetic and non-kinetic) threats (i.e.- Strategic Plan and tactical flexibilities)
- Remain ahead of competitors’/adversaries’ abilities to exploit US weaknesses
- Engage Whole of Nation approach leveraging all sectors of national power
Additional Information

- Gerstein D, Giordano J. Biosecurity is the lesson we need to learn from the COVID pandemic. *National Interest*, (2020); available online at: [https://nationalinterest.org/tag/biosecurity](https://nationalinterest.org/tag/biosecurity)
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