

Bioterrorism: Present Realities and Future Prospects

D.A.Henderson, M.D.,M.P.H.
Center for Civilian Biodefense Strategies
The Johns Hopkins University
Baltimore Maryland

The 21st Century ushers in a different world than that which we knew or once perceived -- a world in which the use of biological weapons poses a very real threat. It is a world now in which there are individuals and groups, as well as nations, that have the capacity to produce and distribute organisms that have the potential for creating epidemic disease and panic. The problem is compounded by the threat of new or emergent organisms that may cause widespread destruction, as is well illustrated by the HIV pandemic. Public health and medicine are at the front lines of this threat. There is much to be done.

Smallpox as a Bioweapon

The last naturally occurring case of smallpox occurred on 26 October 1977 and, in 1980, most countries stopped vaccination. So ended more than 3000 years of a disease that, through the ages, far surpassed any others in terms of death and blindness. It was hoped by all that this disease would never recur. The virus was supposed to have been kept in only two laboratories and to be destroyed in 1996. Not until the 1990s did it become known that the Soviet Union had weaponized smallpox and that it had factories capable of producing smallpox in ton quantities. It is unknown as to how many other countries might have obtained the virus and the skills to produce it. The potential catastrophe that could occur were the smallpox virus to be released has caused a number of countries to begin producing the vaccine again.

But the world has
 changed. - the world of
 biology has changed.

However,
 But there is a
 positive side to this serious
 problem. It is important
 that the be recognized
 as a bit of background
 as to why, at this time
 we are so concerned
 about bird grip

we are
 awfully

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

However, ~~that~~ there is a positive side to the security problem. It is important that the bar be recognized as a bit of junkyard as to why it has failed. We are so concerned about bird grain we are awestruck.

~~the~~ diversity

Yes, AIDS had come along in the 1980s and that ~~was~~ ^{became} to be a real problem but if ~~it was~~ ^{it was} regarded as a very special problem, something totally unique and different. Concern about bioterrorism were nil. No ~~early~~ ~~1990s~~ ~~the~~ ~~idea~~ ~~was~~ ~~seriously~~ ~~looked~~ ~~at~~ ~~as~~ ~~serious~~ ~~Adviser~~ ~~to~~ ~~President~~ ~~Bush~~ ~~I~~ ~~and~~ ~~in~~ ~~advisory~~ ~~committees~~

one imagined that any ~~one~~ ~~country~~ or group could be so involved
1972 Bio weapons Convention. Morally wrong to use bio weapons / too difficult
As Senior Adviser to Pres. Bush ^{during the Gulf War}, I can say we were concerned re: Iraq's ^{possible} use of Bio weapons ~~but~~ didn't seriously believe that ~~the~~ ~~country~~ posed a real problem.

- 1995 - 3 events - ① SARS - anthrax - a non state group, unknown
② ~~the~~ ~~World~~ ~~IRAQ~~
③ ~~the~~ ~~Soviet~~ ~~Union~~.

WHAT ORGANISMS

As I noted
Interest & concern re: ^{inj. disease and microbiology had been} ~~organisms not found~~ in our own country. highly pathogenic anthrax. hem. proc. fed. drugs
Little clinical expertise, no research, ~~little~~ ^{little} ability to detect early a outbreak, to diagnose, to treat to respond.

3 years ago - beginning of a new initiative - Office of Public Health Emergency Response

Need to ~~App.h.~~ / i.d. / m.d. response.
Need to strengthen ability to respond to other infectious diseases
? H5N1; dengue; West Nile virus.

Bioterrorism: A problem to all countries, -
Capability to grow & produce organisms - INTERNET
What sized operation
Cost
How to disseminate - new talents, new technology

A problem that will not go away - 21st century.
~~Two approaches~~ H of new technologies.
Nuclear vs. Chemical vs. Biological

What do we do

- ① Respond.
- ② Provent.

A number of years ago, under threat of nuclear weapons being used, a group created PSR - to educate and lobby for weapons control.

Today - we face similar problems - need for medicine to stop
ground ad to make the case that there are weapons beyond the scope
of our agreement. Weapons that must not be used.

Portugal scenario - Syria - Russian in U.S. + Russia
- Antares report -
- Antares - Secret.