

## SME\_and\_PR Material for TETRADYN and CADS Use

### ***The structures and constraints of CDC, FDA and USDA***

**Topic:**

How they affect the new reality of ECP (Emergent Critical Processes and Events) with regard to biothreats and public health especially

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There has been a virtually constant awareness and agreement that our nation has multiple public health risks that are linked with our large and increasing population, our diversity and dependencies upon large-scale agribusiness in both the United States and offshore in foreign food-growing and food-processing centers, and also our risks from both natural and intentional calamities that can and do produce outbreaks of contagious and easily-spread infectious diseases.

We have seen, particularly since post-911 and the development of a conscious awareness of bioterrorism and the risks of weapons of mass destruction using bio-agents (e.g., anthrax, smallpox), a proliferation of special programs and countless studies, committees, commissions, and centers, many funded from federal government programs and managed through either the Department of Health and Human Services or the Department of Homeland Security. BioSense, BioWatch, BioShield, and more.

However, we have also seen the budgets and work forces of the Food and Drug Administration effectively shrink, counter to the rise in population and the drastic rise in food importation from beyond our borders and continent. We have seen a drastic increase in food processing of all types but particularly among staples of fruits and vegetables, nuts, beef and poultry. And, we have seen a steady increase in food-borne illnesses that are associated with common yet high-health-risk bacteria in some of those foods and with significant effects upon both peoples' lives and the economies of companies involved, many of which have been involved not directly in any incidents but simply by proximity to pathogen outbreaks.

We do need stronger programs for inspection and monitoring by government agencies. We do need more FDA and USDA inspectors and better technology for them to be using. We do need more people and equipment by which the CDC can respond to infectious disease outbreaks and reach the field scenes sooner, obtain results sooner, react with prophylactic and therapeutic engagements sooner and more efficiently. However, that is

not enough, and it is a mistake to put all the weight and attention upon building up government agencies alone.

We need fast-response, special-ops private sector forces that can be doing these functions in tandem and in collaboration with national and state agencies. We need the private corporate world, from food growers to food retailers, from water companies to local water authorities, from small health care provider offices and clinics to major hospital chains, to become highly active in each and every step of the process for avoiding, detecting, mitigating and responding to biothreats of any and all types, in the food, in the water, in the hospitals and schools, in the restaurants and cafeterias, in the general population and the general places where people congregate, work, play, and be together.

This sounds like a tall, impossible-to-fill order. On the contrary, we have all the ingredients ready to “rock and roll” and go forward into practical deployment, at the local, state and national levels.

The basics of this are what makes up CUBIT (Coordinated Biothreat Intervention and Treatment), for instance, and within it, CRAIDO (Community Rapid Response Diagnostics for Infectious Disease Outbreaks) and VSRB (Virtual Sample repository Bank). These are technologies, toolsets, resources, systems designed for expressly serving the increased load of work concerning our public health and especially our public food, transportation and school networks. These are the answers that top experts from WHO and CDC, like Dr. Margaret Chan (Director of WHO), Secretary Kathleen Sibelius (DHHS), and Dr. Nancy Cox (CDC) have been saying, writing, and calling for. It’s what the directorship of FDA and USDA and CDC have been wanting and requesting for years and through more than three separate White house administrations.

Get things out there, into the field, close to the points of origin, meaning, the sites of pathogen and disease incidence, the first points of outbreak, so that we can have quickly and accurately the diagnosed results and the context – the geography, the demographics, the GIS and GPS data, and in the case of food-borne diseases, the control data on food allotments, packages, and shipments.

Get the picture and the facts from where things are happening, and with traceability and accountability.

Get the information so that we can know what to stop and what not to stop in the way of transport and transit, of goods or of people, what to recall and what to leave alone, who to send home or even quarantine, and who to leave be, what schools to close and which ones to leave open.

There are the means, and these means are not outrageously expensive at all. In fact, the cost of avoidance, in terms of risk management, shutdowns, recalls, down time, lawsuits – those costs are much higher and damaging for communities and for corporations. Not pursuing the private+public collaborative partnership for improved public health is exactly the wrong course economically, financially, legally. The tools are really right

here, available, and the reason an architecture and suite like the CUBIT Suite stands out and is being noticed, is not because it is new “rocket science” technology but because it is based upon solid, logical, scientifically proven building blocks, both methodological and technical. The fact that a network of testing stations like CRAIDO, using advanced lab-on-a-chip diagnostics, is something that is “just what the doctor ordered,” is not so much about the new, state-of-the-art hardware and software, but about the methodology, the process involved whereby many more people and institutions can be participating more responsively, more timely, and across vastly larger physical spaces, to gather data and get results ahead of the curve, before the spread of something bad gets too far into the food supply or the general population.

We have a damaged infrastructure when it comes to public health and food supply health. We can repair and rebuild this infrastructure. But it is not just about having more employees, more bureaucracy, more databases, more reports, more high-priced consulting contractors producing recommendations for new and very expensive (and often secret) special projects. What the rebuilding is all about, concerns people and networks and actual gathering and diagnosing of data. This is a “here and now” capability, and it is one that is long overdue, and it can be put into practice for the betterment of our nation’s health at a fraction of the cost and time than many of the “mega-buck programs” of (especially) the past decade.

We don’t have the time for more big studies and IT-top-heavy mega-contracts. This is a time when, to save and preserve our nation’s health and security, we need not slow plodding “behemoth” dinosaurs but nimble, fast, adaptive, skillful small mammals. History tells us, from the fossils of tens of millions of years ago, how things turn out in these situations. Let’s learn, and not make a bigger mistake than the ones we’ve shared over the past several years.

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