

City Council Hearing on BUMC Bioterrorism Research Laboratory

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Among the many reasons for opposing the National Biocontainment Laboratory, more commonly called the biosafety level-4 laboratory and more truthfully called the bioterrorism defense laboratory, that the Boston University Medical Center (BUMC) proposes to build in the South End of Boston—reasons which include no civilian or public control over research, the likelihood of classified military research, the potential for accident and release of highly dangerous organisms in a densely populated neighborhood, little demonstrated community benefit, and so on—I would like to address two. These are: the environmental injustice of the proposal and the siting decision and, second, the risk to community-university partnerships within the BU School of Public Health and the Boston Medical Center that the bioterrorism research facility poses.

Environmental Justice and Siting Decisions

Environmental justice sets forth the principle that no person or community should bear a disproportionate burden of pollution, undesirable land uses, ill health or risk. More positively put, all people have an equal right to a safe, secure and clean environment, to adequate environmental protection, and to access to natural areas/resources. There are, in reality, no “safe, clean and secure” environments—given the extent of industrial pollution (the military being the largest single polluter in the United States and worldwide) and the health impacts of social inequalities. Some community environments, however, are less clean, less secure, and less safe than others because they bear a disproportionate burden of: waste and other polluting facilities; undesirable (to many) public institutions; commercial parking, trucking and transportation facilities; and social inequalities, from which, in many cases, other communities benefit.

The issue of environmental injustice matters because some neighborhoods function, in reality, as sacrifice zones for the benefit of the regional environment and economy, or simply because they are perceived as an easy target if they already bear a larger share of the city and metropolitan area’s poverty, pollution and prevalence of illness. Let me provide two examples.

About 10 years ago, the local communities of Roxbury, South Boston, Dorchester, and the South End, organized a campaign to defeat the building of a proposed state-of-the art asphalt batching plant on the site of the old municipal incinerator in Lower Roxbury, a location that is a stone’s throw from the site of the proposed laboratory. How was that site chosen for the asphalt batching plant, a facility that had been rejected by the Boston neighborhood of Roslindale but was desired by the city of Boston for the anticipated roadway construction for the new I 93 tunnel through downtown Boston. Mayor Flynn told his aides that the old incinerator site in Lower Roxbury was already contaminated, so why not put the asphalt batching plant there. The facility received a state air permit and passed the initial environmental impact review process but was ultimately defeated by the public health board on the grounds of risks to

local community health, risks that were excluded from consideration in the environmental impact review and state permitting process.

Many of the key local neighborhood concerns raised then against the asphalt batching plant and now against the proposed bioterrorism laboratory generate from the following arguments: 1.) nearby communities already bear more cumulative environmental health risks proportionately than other communities in the city, and 2.) the environmental impact assessment process and the risk/benefit analysis conducted by regulatory agencies are inadequate because they narrow the definition of risk by excluding both historical and cumulative risk from their analyses and also certain vulnerable populations (namely, patients in hospitals and people in prison, in the case of the asphalt plant).

My second local example of public sector decision-making that, whether intended or not, sacrifices specific communities for the sake of larger regional interests is the designated port area in the Chelsea River (also known as Chelsea Creek) neighborhoods of Chelsea and East Boston. The Chelsea River is a narrow industrial river whose depth and protected inner harbor led the state of Massachusetts to zone virtually its entire waterfront in 1978 as a designated port area (DPA), that is a marine industrial park for the port of Boston that serves the larger metropolitan and regional economy. What has been a working industrial waterfront, however, is now a hodgepodge of fuel storage tanks, bulk materials storage sites, a burgeoning number of parking lots for Boston's Logan Airport, and "brownfields"—idle lands contaminated by past industrial or commercial use. The river has been described by public regulatory agencies as the most polluted tributary of Boston Harbor.

The most vocal advocates for access to the Chelsea River are racially diverse and working class neighborhoods on both sides of the river. The riverfront renaissance that has produced striking results in many cities has largely bypassed small and economically challenged cities like Chelsea and neighborhoods like East Boston. Thus, even as Boston Harbor has been a magnet for waterfront revitalization, public access to the Chelsea River by local residents has been sacrificed for the larger regional economy.

More than half of Chelsea's land is zoned for industrial and commercial use, a larger percentage than any other city in metropolitan Boston. The fuel storage industry dominates the waterfront: The designated port area has capacity for 40 percent of the petroleum used in Massachusetts, with additional capacity for New Hampshire and Vermont. Past and present land uses have left a legacy of soil and groundwater pollution and minimal green space. Nearby residential neighborhoods bear a heavy burden of air pollution and accidents from industrial and commercial truck traffic. Except for the marina of the Chelsea Yacht Club and one exclusive housing development outside the DPA, residents have no access to the waterfront. Elizabeth Grob, of the Massachusetts Coastal Zone Management Agency, said in interview with me (1999) that the state is vested in the deep-water port designation for Chelsea Creek because it would be impossible to re-locate the designated port area within any other coastal Massachusetts community.

Disproportionate Burden

The communities that are protesting the building of this high security bioterrorism research facility in their midst—initially a collaboration of residents, organizations and

workers who live in the South End, Roxbury, and Dorchester and now a collaboration that has grown into a citywide coalition—already contain more than their fair share of facilities that few other communities will or would accept. The South End and Roxbury collectively house shelters for the homeless, including Pine Street Inn the largest in the region, and victims of violence; homes and treatment centers for people recovering from addiction and people with mental illness, including Solomon Carter Fuller Mental Health Treatment Center, one of three mental health centers in Boston; and large clusters of multifamily public and subsidized housing, in greater number and proportion than any of Boston neighborhoods. The largest methadone clinic in the state, Habit Management Inc., was quietly relocated to Lower Roxbury (again, a stone's throw from the proposed bioterrorism laboratory), after it lost its lease in Kenmore Square in 1996 and encountered community and City Hall opposition in the neighborhoods where it attempted to site, including Downtown Crossing; Back Bay (where Boston University blocked the deal); the Fenway and Savin Hill. The Suffolk County House of Corrections and Community Corrections Center—serving all of Suffolk County—is situated in Lower Roxbury, virtually a neighbor to Habit Management Inc. and the bioterrorism laboratory.

Lower Roxbury contains a depot for buses that serve much of Boston; waste and recycling industries serving greater Boston; commercial parking lots for private sector vehicles serving greater Boston. Due in part to the industrial past of Lower Roxbury, Roxbury contains the highest number of state-designated hazardous waste sites (21E sites) per capita of any Boston neighborhood.

If we overlaid onto a map of Boston's neighborhoods public health data, such as incidence of lead poisoning, rates of asthma-related emergency room visits, weapons injuries, infant mortality and food insecurity with social data from the 2000 census, including rates of unemployment, poverty, and minority status, we would find that Roxbury and North Dorchester are the neighborhoods most burdened with environmental illness, social vulnerability, and disparities of health and income. According to the health data released by the Boston Public Health Commission in June 2002, Black Boston residents, a large percentage of which live in the neighborhoods nearest to the proposed bioterrorism laboratory, had worse outcomes when compared to White residents in 15 out of 20 health indicators.

Why add another risk, another locally undesirable land use, another source of fear and insecurity to the most overburdened communities in the city of Boston, these communities are asking? Is it fair? Is it just?

Environmental impact and risk/benefit analyses do not traditionally consider the historical and cumulative risks nor the full social and community impacts of siting facilities of this complexity. Executive Order 12898, however, which was signed by President Clinton in 1994, directed all federal agencies to make environmental justice a part of their mission, including their funding and facility siting decisions, obligating them to examine and address disparate impacts of their programs, policies and activities on minority and low-income communities. Where is the consideration of environmental injustice by the National Institutes of Health and its lead agency in bioterrorism defense research, the National Institute of Allergy and Infectious Disease (NIAID), which funded BUMC (with National Homeland Security funds) to build this level 4 defense-related research facility at the nexus of dense urban neighborhoods, neighborhoods that, given

the aforementioned data, might as well have been zoned for poverty, pollution, and prevalence of risk and disease?

Who Risks? Who Benefits?

While the argument in support of state-of-the-art facilities involved in hazardous activity, (whether asphalt batching or research on extremely virulent organisms), is that they are “safe” because risks of release have been reduced by technical design and security is rigorous, the fact is that nothing is error-free. Power failures, cracks in containment structures, human errors in the laboratory, security lapses, cargo accidents, airplane terrorism and the magnet for terrorists that such a facility, with porous boundaries between medical and military research, could be—all of these remote possibilities have occurred at other “high security” facilities, with other state-of-the-art technologies, and with security systems in place.

BUMC’s fact sheet states that there have been no accidents at biosafety level-4 laboratories. However, the Committee for Responsible Genetics has documented numerous accidents and, equally important, lapses in security at biosafety level 4 and 3 laboratories since the early 1990s through 2003. The US Army Medical Research Unit at Fort Detrick, Maryland cannot account for two dozen vials of anthrax and Ebola, and in 2003 unearthed 113 bacterial-containing vials, including live strains of brucellosis and non-virulent anthrax. The anthrax spores used in the September 2001 mail attacks and which killed a number of postal workers are thought to derive from the Fort Detrick facility as well. On March 20, 2003 a package containing West Nile virus exploded in a Federal Express building in Columbus, Ohio, exposing workers to possible infection. A level 4 laboratory researcher in Taiwan became infected with SARS and traveled to Singapore before his infection was noted. (Paul King, 2004).

Techniques of security and built-in redundancy to protect against accidents are improved by what we learn from accidents and models of accidents. In high security systems, the probability of accidents is increasingly reduced (because we learn from previous, unanticipated accidents) but it is never reduced to 0. Which of complex systems, with many redundancies built into them to protect against failures, has been or can be guaranteed to be free from errors: space shuttles, nuclear power and weapons productions facilities, genetic engineering, hazardous waste landfills? (I will add that risks of the nature I am referring to here--*low probability but with potentially grave and unpredictable consequence*, as MIT biologist Dr. Paul King has warned, do not deter us from engaging in these industrial and commercial activities. They do, however, influence siting and worker exposure decisions and structural design, resulting in more remote locations for the activities, in some cases; the use of robots, in others; and the structural design of certain facilities, such as nuclear power plants, to be airplane crash-proof.).

A memo written in 2000 by the director of NIAID’s Division of Intramural Research supported building a biosafety level-4 laboratory at Rocky Mountain Laboratory in Hamilton, Montana because “the location of the laboratory reduces the possibility that an accidental release of a biosafety level-4 organism would lead to a major public health disaster. The county population per square mile in Hamilton, Montana is 15; while the county population per square mile for the proposed BUMC laboratory at the South End/Lower Roxbury border is 11,788. The county population

density of the area surrounding the proposed BUMC laboratory is 4 times that of CDC Atlanta's level 4 laboratory, 10 times that of San Antonio's; almost 20 times that of Galveston's and about 40 times that of Fort Detrick's.

The risk of placing a laboratory of the highest level security research (i.e. research on the most dangerous biological organisms with no known cure) in a highly urbanized and populated community is compounded by the national defense nature of the proposed facility. The proposed laboratory is funded with Department of Homeland Security funds through the National Institutes of Health's counter-terrorism mandate. These agencies, not BUMC, will direct the research agenda; through another research partner, the US Army, the Department of Defense will have access to this research facility for its own research. Thus, neither an independent civilian review board nor the Boston Public Health Commission will have open and complete access to this facility, since classified and military research will take place there. In a declared emergency, the Department of Homeland Security will have authority of the laboratory.

It is too risky to place a defense-related research facility, with classified military-supported research, virulent organisms, armed guards, and no protection against airplane terrorism in this or any dense, highly residential urban neighborhood. And from the calculus of environmental justice, it's unjust to do so.

Risk to Community-University Partnership

Many have characterized the BUMC process of developing the proposal to build a National Biocontainment Laboratory as secretive, deceptive, insulting, and communicated to the public, including the School of Public Health, through a haze of generalities. Organizations in greater Boston, including Alternatives for Community and Environment, an environmental justice law and education non-profit organization, and the Committee for Responsible Genetics have stated that BUMC has ignored repeated their verbal and written requests for information, including the redacted version of their application to NIH. The Draft Project Impact Report submitted by BUMC to the city's development authority, the Boston Redevelopment Authority, one of many steps in the public review process, failed to disclose that the proposed laboratory would include a biosafety level-4 laboratory. Further, it did not disclose that, while BUMC would use federal funding to build the lab, the federal government (NIH and DHS) would choose the operator of the lab and determine research done in the lab. The implications for classified and defense research were omitted; and the impression was falsely given that the biosafety committee of the Boston Public Health Commission would have regulatory oversight of all research undertaken in the lab.

City councilors and citizens have publicly stated that the BUMC website information on the laboratory is trivial and opaque. Many community members who attended the March 4, 2004 forum on the laboratory, sponsored by the Health Not War Coalition at BUMC, related that the presence of BUMC security guards functioned as an intimidation tactic. Dr. Sheldon Krinsky of Tufts University has pointed out that, although the Request for Proposal for the Laboratory stated that the proponent must have a "suitable community relations plan" and assurance of acceptance," the BUMC application process has been "top-down from the outset." Core decisions about the proposed site on Albany St. were never debated. He contrasts the lack of an independent citizen review process for the bioterrorism lab in the city of Boston with that of the

Citizen Committee drawn from the cities of Cambridge, Belmont and Arlington in 1983-84 to evaluate a proposed chemical warfare agents' laboratory at Arthur D. Little research laboratory in Cambridge. In that case, the committee examined the methods and routes of chemical transport to and from the laboratory, risks of chemical releases and research rodent escape, local land uses including schools, daycare centers and so on. The Citizen Committee was unanimous in its recommendation that the permit for chemical warfare agent research not be granted.

In the absence of an open and city-wide process to debate this facility siting, concerned citizens and city councilors have held meetings in various city districts. In the meetings in which I have participated, city councilors have quoted, with a mixture of satire and derision, the sound bytes of information about the laboratory that they have found on the BUMC website. For example,

Fact Sheet Question 11. *How will these Level 4 agents be transported to the building?*

Answer. *The transportation of infectious materials, which are safely transported worldwide on a daily basis, is governed by strict national and international rules. All biological samples that are potentially infectious are packed, shipped, and transported only by authorized individuals. These materials are regulated by the government, under the Department of Transportation, and also under the International Air Transport Authority. The reader is referred to a list of safety requirements and policies at the NIH website.*

This answer, quite frankly, told the city councilor and the audience to which he quoted it very little, so little that they found it insulting. Department of Transportation regulations did not protect the oil truck from crashing into the wall of the I 93 tunnel in downtown Boston, overturning and spilling oil within the first week of its opening, nor did transportation and handling by authorized individuals prevent the package containing West Nile virus from exploding at a Federal Express facility. Strict DOT regulations governing the transport of hazardous waste have lowered but not prevented accidents, spill, and leaks of toxic waste.

All of this –secrecy, stonewalling, omission, and substance-less information on the BUMC biodefense laboratory website--threatens to weaken our hard-won relationships with community agencies and organizations at the Boston University School of Public Health. These relationships are central to fulfilling our mission “to serve...the disadvantaged, underserved and vulnerable”; and they are relationships in public health practice and research that we capitalized on in our most recent annual report and accreditation. At best, the behavior of the BUMC laboratory proponents creates a bi-polar institutional personality on the medical campus, one side being perceived as arrogant, dismissive and opportunistic while the other sustains community-university partnerships and models of education, service and research.

Guns and Butter in Public Health

Finally, I oppose the bioterrorism laboratory because it represents the growing militarization of public health, a parasitical trend that is leeching the life out of it. I am dismayed to see a growing proportion of our taxes being used to support an unjust war, a creeping militarism into federal agencies and activities, and the infection of public health with a culture of bioterrorism, at the expense of the real insecurities of people in the

communities resisting this facility. The real security concerns of communities in opposition to the BUMC laboratory include:

affordable and equitable health care: 15% of Americans lack health care (44 million);

living wage jobs: there has been a 6% increase in the number of families in poverty since 2001, with the increase highest among Blacks; and our national economic recovery is, according to most pundits, virtually jobless;

affordable housing: the funding to public housing authorities has been cut severely by the Department of Housing and Urban Development in the past two years; homelessness and numbers of people and families lining up at food shelters has increased to crisis proportions according to centers throughout the city and state.

public health and environmental protection: by the time of President Bush's State of the Union address in January 2004, his administration had worked to weaken an estimated 200 environmental and public health laws (London Guardian, 2004).

There is a profound mismatch between real threats to people's health, their daily fears and terrors, and the federal and state budget priorities. The budget of the Massachusetts Department of Public Health has been reduced by 30% in 2 years (as of August 2003), with dramatic reductions in teen pregnancy prevention, tobacco use, AIDS and domestic violence, while the state budget for bioterrorism defense and research has grown from \$1.8 million in 2001 to \$32 million in 2004. Budget cuts to health care -- cuts which target children and vulnerable populations-- have been called irresponsible and reckless by Mayor Menino. I will simply point to one: the elimination of state funding for school nurses. Imagine what this will mean in the neighborhoods protesting the bioterrorism laboratory, particularly Roxbury that has the highest rate of asthma emergency room visits and highest rates of childhood asthma.

Nationally, the shift in NIH funding away from vaccine development for the major virulent disease organisms that threaten health to research on likely bioterrorism disease agents is diverting researchers and research priorities away from global health. Almost overnight, the bioterrorism research and development budget at NIAID (NIH's lead bioterrorism defense research agency) and the Department of Defense mushroomed from an annual \$250 million prior to the anthrax attacks in 2001 to \$2 billion in 2003, a larger program than HIV/AIDS at its height of funding. By contrast, NIH dedicated less than \$200 million in 2002 to research on malaria and tuberculosis (Goozner, 2003). As one commentator on the "bioterrorism brain drain" put it, "...the number of people worldwide who suffer from smallpox, botulism, Ebola or anthrax in the absence of deliberate poisonings would fill up the tuberculosis ward in a small African city" (Goozner, 2003).

Internationally, too, the war on terrorism has drained attention from and slowed progress on the real threats facing humankind and the urgency of development. Most people are stalked by fears of poverty, hunger, unemployment, and deadly diseases not weapons of mass destruction, stated UN Secretary General Kofi Annan, as he endeavored to invigorate world commitment to the UN Millenium Development Goals. The weapons that most often kill people, he added, are weapons of individual destruction, not mass destruction: AK-47 assault rifles, machetes, landmines and small arms (Inter Press Service, 2004).

Conclusion

I will conclude by speaking from the vantage point of one who has dedicated her teaching, research and community service at BU School of Public Health to community-university partnerships. My most significant collaborators—on lead-safe yards; community gardens, urban agriculture and food security, healthy public housing—have been community organizations, such as the Dudley St. Neighborhood Initiative, the Food Project, Alternatives for Community and Environment, West Broadway Tenant Task Force, Committee for Boston Public Housing, the Bowdoin St. Community Health Center, the former Public Health Initiative at the South Boston Community Health Center, as well as city health and housing agencies and university colleagues.

If we take the same map of Boston I described earlier (on which we overlaid risks and liabilities onto the cities' neighborhoods), and now mapped the assets of Roxbury, the South End, Dorchester and South Boston, we would find a system of community health centers initiated by grassroots efforts, new and affordable housing, urban farms and gardens, youth programs, environmental justice projects, micro-enterprises, clean transportation initiatives, community policing and community school programs—all of which have given Boston, particularly the neighborhoods rent by racism and poverty and threatened by gentrification, the new life that it has. The protest against the bioterrorism facility is so insistent because community organizations from the non-profit sector and voluntary neighborhood organizations have built such a base of assets over the past 3 decades (sometimes with public sector support, sometimes without) from the ashes of red-lining, racism, school busing, and an economy that has grown increasingly unequal since the late 1970s, such that the gap between the rich and poor is as great as it was in the late 1920s. They are not about to relinquish control over a key land use decision that affects them.

Lest the successes in neighborhood building be seen as local and parochial next to a state-of-the-art national laboratory, let me say that many of my community partners have attracted national attention and national funding from foundations and federal agencies. They are hailed and have served as models and mentors for cities nationwide and internationally. In other words, they are adding to both local security and national security by the intelligence, integrity, tenacity, and transferability of their neighborhood-building work.

Sources

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