

University of Nebraska Medical Center (UNMC)

The New National Center for Health Security and Biopreparedness at Davis Global Center, The University of Nebraska Medical Center (UNMC)

Global leadership in transforming human performance and effectiveness in health care



During the November 2016 Tranquil Surge Exercise, EMS staff are shown transporting a non-ambulatory patient with simulated respiratory and cardiovascular issues originating from late-stage infection. The patients were all human volunteers who had been transported from Monrovia, Liberia, by Phoenix Air Group on behalf of the U.S. Department of State.

UNMC/Nebraska Medicine (NM) is the recent recipient of a \$19.8 million award from the U.S. Department of Health and Human Services (HHS) to establish a new national resource for health security training, simulation and quarantine: The National Center for Health Security and Biopreparedness. This new center will be housed within UNMC's Davis Global Center for Advanced Interprofessional Learning (Global Center), to establish an advanced state-of-the-art clinical simulation training program as well as a 20-bed quarantine facility. Both the 30,000 gsf clinical simulation area and quarantine facility will take one floor of the Global Center and be dedicated to biopreparedness training, simulation and to the quarantine of individuals who may have been exposed to highly infectious agents.

Background

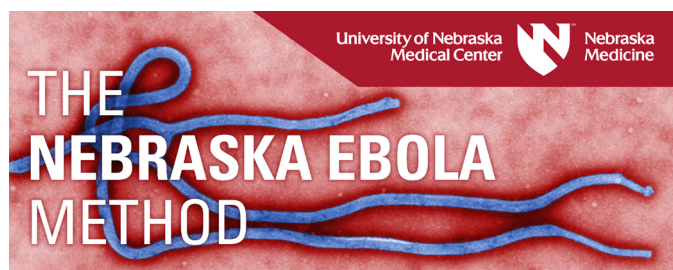
For more than 12 years, UNMC/NM have independently committed to being ready to respond and treat people infected with a highly infectious disease from either natural causes or an intentional offensive assault on U.S. citizens. In 2005, UNMC/NM collaborated with the State of Nebraska to build the largest operational biocontainment unit in the nation capable of handling

contact and airborne spread of highly infectious diseases such as Ebola.

In 2014, as U.S. citizens became infected with the deadly Ebola virus in West Africa, the HHS and the U.S. Department of State called upon the Nebraska Biocontainment Unit (NBU), located within NM, to treat Ebola patients and quarantine individuals with high risk exposures, and also help train health care providers and hospitals throughout the U.S. While treating, monitoring and training during this period, the team was repeatedly asked how quickly UNMC/NM could expand its isolation and quarantine capacity. The limited national capacity to treat Ebola patients made the need for training obvious with most hospitals scrambling to update skills necessary to safely handle patients infected or exposed to highly infectious agents.

UNMC/NM will continue to provide high quality national training in highly infectious disease to health care providers across the nation, and is expanding its capability to national capacity for future highly infectious disease threats.

In addition to providing patient care, UNMC/NM - in collaboration with public health - established and operated the only dedicated quarantine facility in the U.S. co-located and operated by a high-level biocontainment unit. The UNMC/NM capability was the result of a successful vision, dedication to training, maintenance of skill levels and an ability and commitment to assist other health care providers and hospitals across the nation. Thus, when called to duty in 2014, UNMC/NM was operationally ready, and without hesitation began treating patients, quarantining individuals and training other institutions. The UNMC/NM commitment benefited the nation at a time of great need.



This commitment to readiness and the ability to complete every request made by the federal government in 2014 and 2015 culminated in the NBU being recognized and referred to as the “gold standard” in the preparation, treatment and safety for handling highly infectious diseases. In July 2015, the HHS designated UNMC/NM as one of three institutions comprising the National Ebola Training and Education Centers (NETEC).

Infectious Disease Response Training

The National Center for Health Security and Biopreparedness training program will leverage the highly advanced clinical simulation training capabilities of the Global Center.



The Global Center will have purposefully designed interprofessional simulation training environments, including 3D and Virtual Immersive Reality (VIR), advanced clinical simulation, and surgical skills suites. Thus, the National Center for Health Security and Biopreparedness will have increased access to a wide range of training environments that will accelerate the mission of providing specialized training courses in biopreparedness. In addition, the integration and juxtaposition of these two world-class centers fosters the sharing of expertise, knowledge, experience and

resources resulting in extraordinary training opportunities such as the creation of new courses and modules, research of new effective methods, and outcome measurement.

Quarantine Center

The 20-bed quarantine facility is comprised of two self-contained and independently functioning observation units. The facility will be a unique national asset capable of safely and securely monitoring individuals who have potentially been exposed to highly infectious diseases such as Ebola. The quarantine facility is strategically located near the NBU, the nation’s largest containment care unit with experience treating patients with the Ebola virus disease. Thus, quarantine capabilities will serve individuals across the continuum of care, from quarantine for healthy individuals with high-risk of illness to caring for sick patients that require immediate transfer to a specialized isolation unit.

Key Partnership Opportunities: Military, Academia, Industry & Government

The unique capabilities of the National Center for Health Security and Biopreparedness, including infectious disease training, simulation and quarantine, create the ideal incubator for advancing infectious disease response and studying the best training methods through strategic partnerships. UNMC/NM has a long history of partnering with industry leaders to develop, prototype and validate novel technologies for combating infectious disease. This environment will also serve to advance UNMC/NM’s existing and future collaborations with defense partners to maintain and improve national capabilities for infectious disease response among war fighters and civilians.

UNMC/NM has a distinguished reputation for its capability and expertise in the treatment, health care training and research of highly infectious diseases.

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For further information please visit:
www.unmc.edu/iexcel