

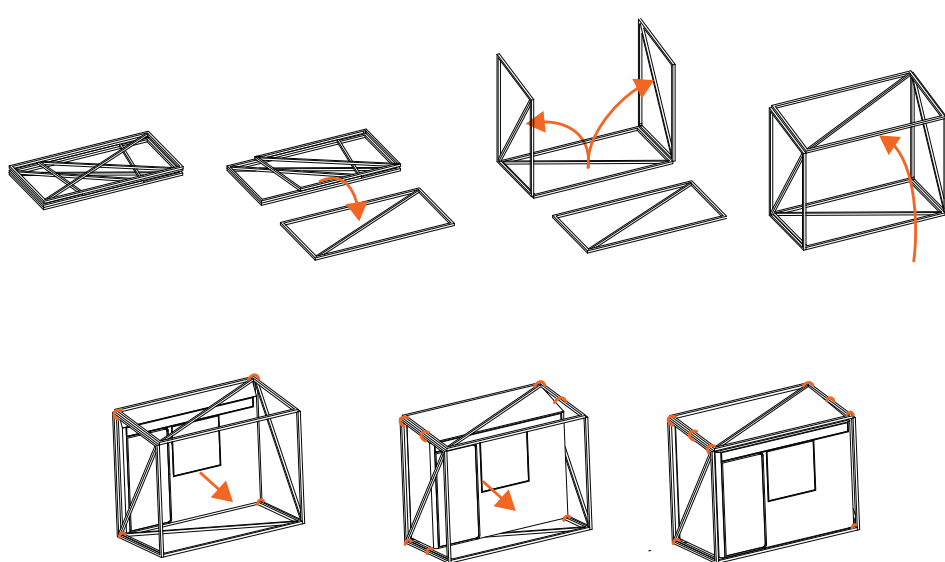
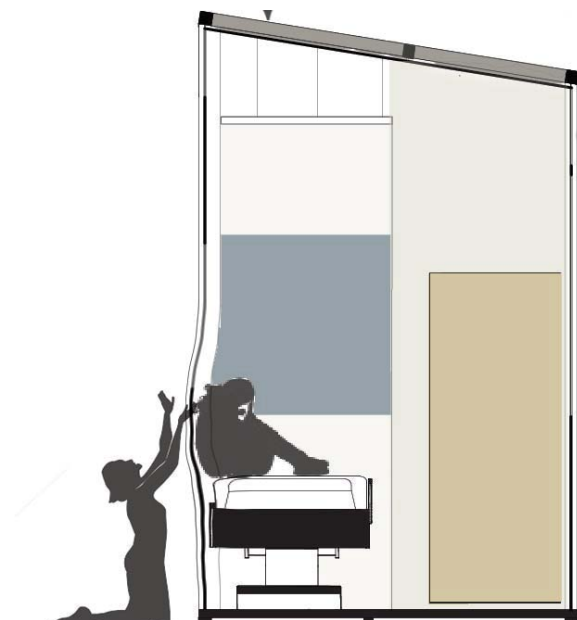
# A Global Human Connection - Mobile Ebola Response Unit

The recent outbreaks of Ebola have prompted a need for **swift diagnosis, isolation, and treatment** of infected patients as a means of controlling the spread of the disease. In many resource poor countries it is difficult to provide care to individuals in rural areas given that in their vulnerable state they cannot travel long distances by foot. In order to reduce the risk of transmission it is necessary for a **mobile unit** to be developed which can provide proper care in the stead of the family who risk contracting the virus themselves. In response to this we have developed a mobile unit which can effectively **isolate and stabilize** patients while transporting them safely to an adequate care center. The design of this mobile unit focuses on the interaction between families and patients after isolation through the use of containment units which allow for **visual, auditory, and tactile** interaction to occur as a means of providing a more **humane isolation process**.



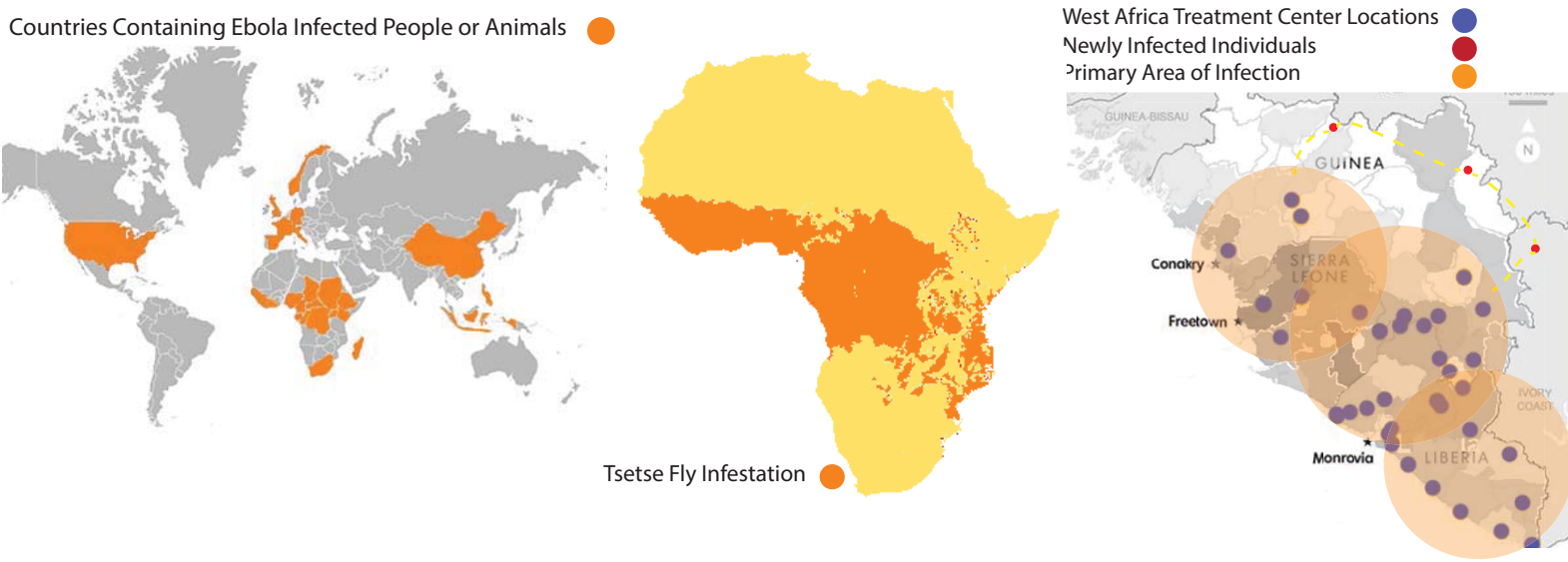
Membrane Section

Isolation Unit Assembly

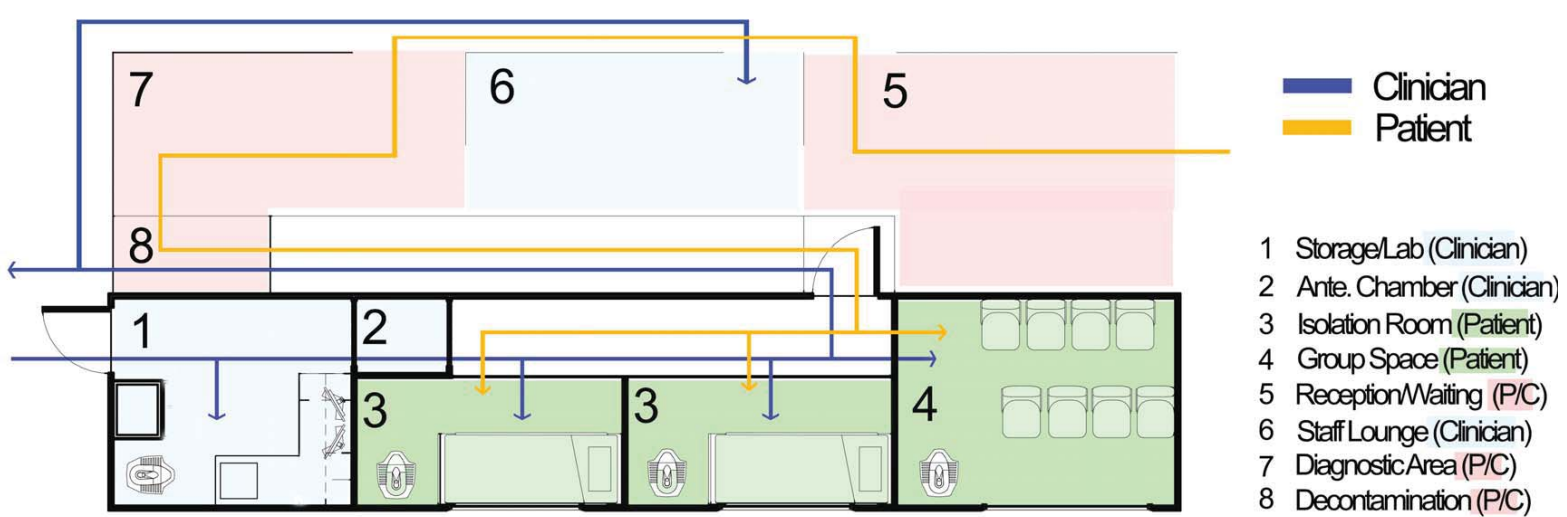


# Research Approach

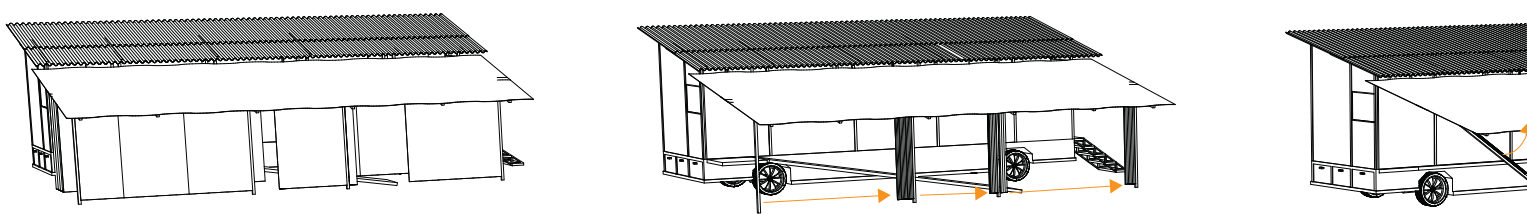
The handling of bushmeat has been linked to the initial outbreak of Ebola through a natural phenomenon known as a **spillover** wherein a species comes into contact with the viral load of another and the infection wreaks havoc on the unsuspecting immune system of the newly infected. Bushmeat is eaten in many areas that are infested with the tsetse fly and cannot raise domesticated animals meaning that while the **outbreak is highlighted in West Africa** it has the potential to spread throughout the infested area if responses to reported cases are not **quick and effective**. Many families choose to take care of sick loved ones rather than take them to professional caregivers but this creates the opportunity for a spread of the infection through the handling of bed linens and other objects exposed to bodily fluids.



# Circulation and Narrative Overlay



# Operability

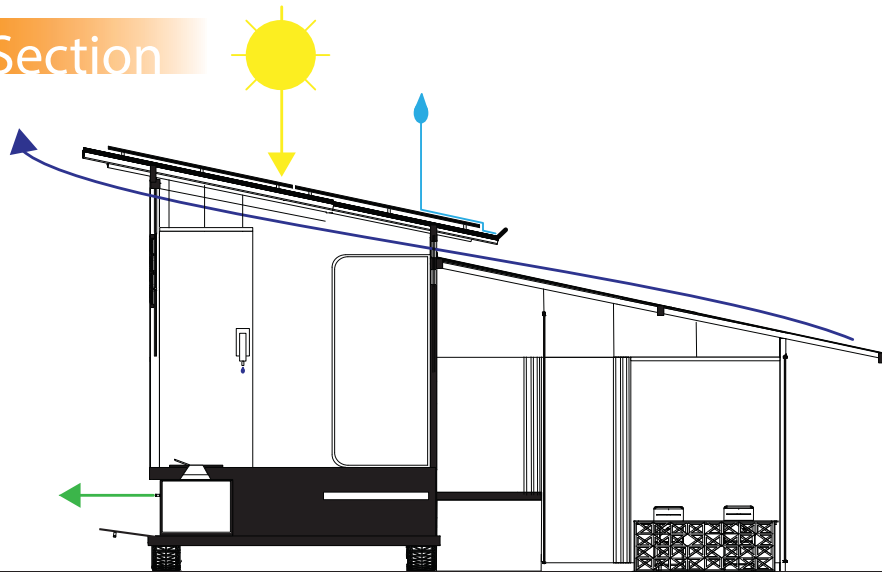




# Design Response

By **retrofitting** a thirty foot shipping container with a series **isolation unit membranes** for severe cases and a larger group room for transport of infected individuals this mobile unit can transfer patients to care centers without exposing other individuals. The **operable facade** of the unit opens up to create a series of curtain enclosed rooms for **waiting, diagnostics, and decontamination on site** to then fold back up and move to another location. The individual units are composed of lightweight framing which snaps together and is then fitted with a membrane interior for **quick and safe disposal of the infectious environment**. The elasticity of the membrane allows for a **transfer of heat and vibration** through the surface to provide a **connection to family members while removing the risk of further exposure and spread of the Ebola virus**.

## Mobile Unit Section



## Isolation Rooms



## Staff Area

