

MEDIC

Mobile Expandable Disease Isolation Container

MEDIC is an **easily transportable** first response unit that, when expanded, can hold up to four patients as well as a work space for doctors and nurses to treat the patients. MEDIC can easily be deployed by **four aid workers** in the field using **without special equipment**. Due to its durable construction the unit can stay out in the field for indefinite periods of time.

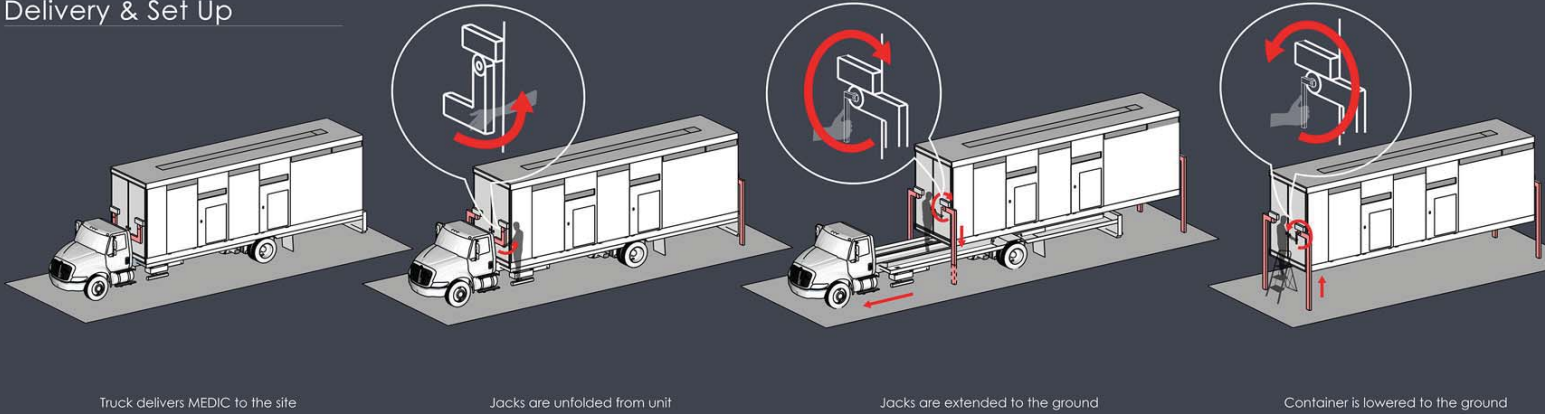
About the Ebola Virus

Symptoms: Incubation period of 2-21 days, fatigue, fever over 38.3°C, decreased appetite, muscle pain, joint pain, headaches, and sore throat.

Transmission: Body Fluids e.g. mucus, vomit, feces, breast milk, urine, and semen penetrating mucous membranes and open wounds.

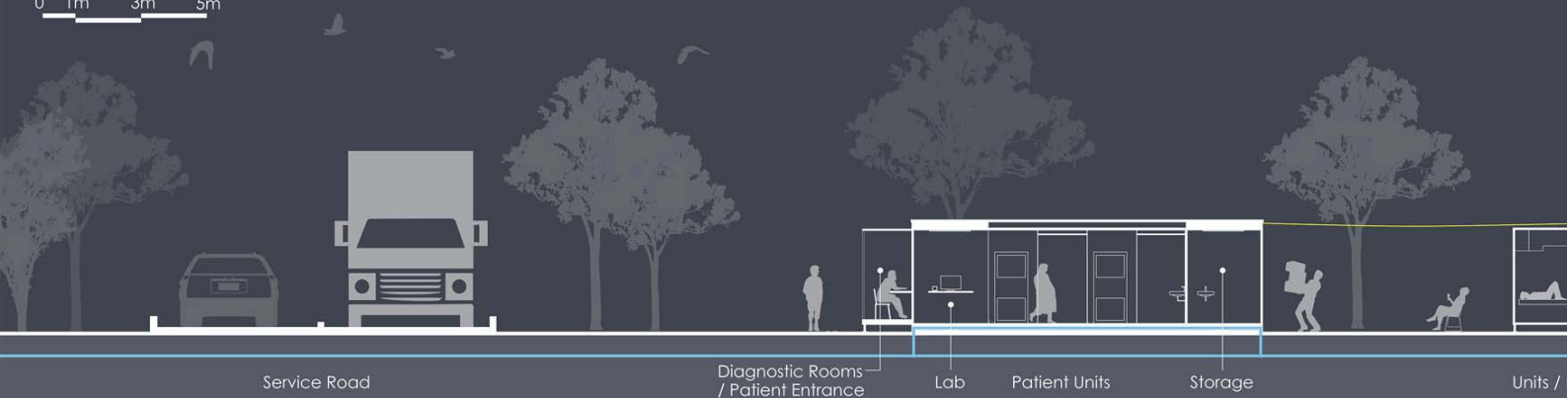


Delivery & Set Up



Section Through Treatment Camp Site

0 1m 3m 5m



Distribution Concept

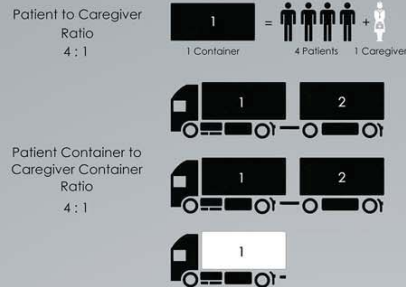
In order to have **the quickest response** possible we have proposed to place large warehouses in parts of the country close to **major urban populations** in addition to smaller equidistant warehouses in each state so the units only need to be **transported a short distance** to affected areas with potentially the highest number of infected people. Other factors that affected their location are the adjacency of Ebola equipped hospitals and international points of entry.



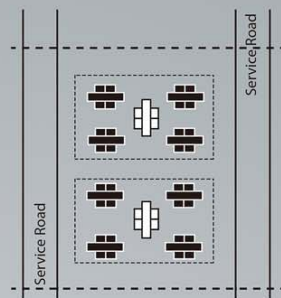
Keys

- Large Warehouse
- Small Warehouse
- High Population
- Highest Non-citizen Population
- Top 10 Busiest Airports
- Ports
- Ebola Treatment Hospital

Operability of Module

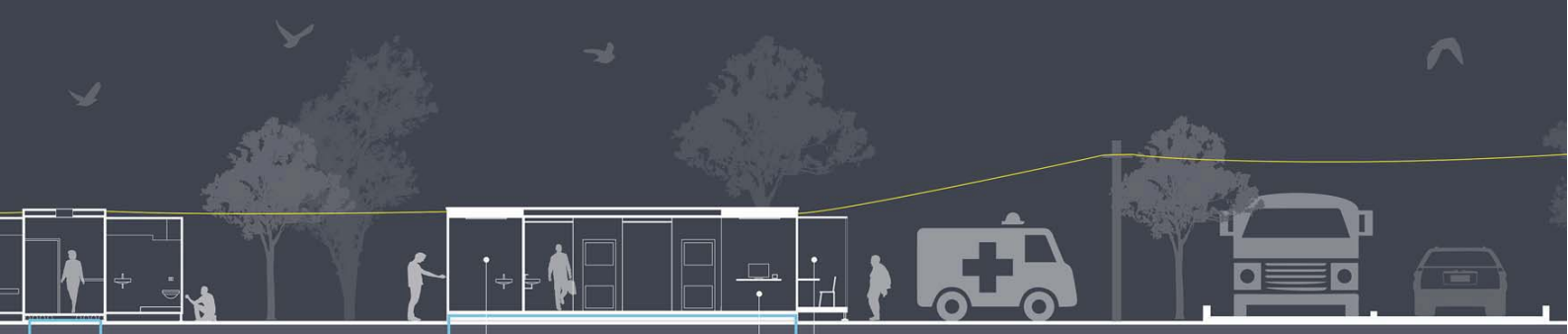
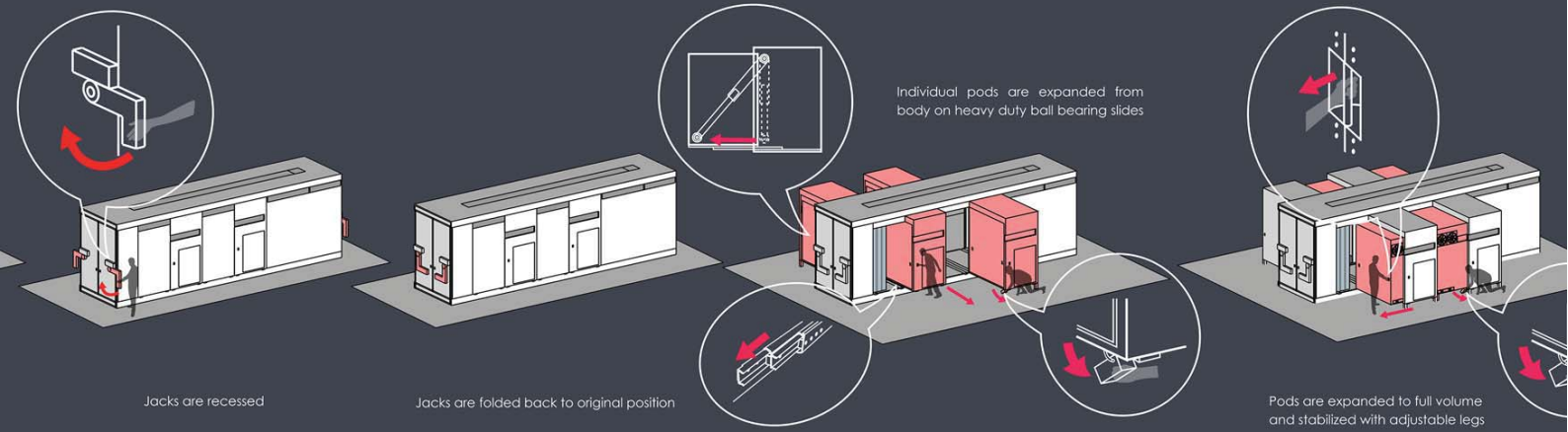
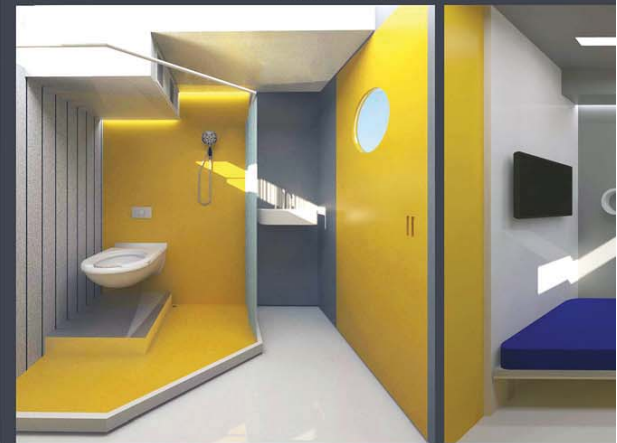


Modularity



Central Corridor

Patient Bathroom



Lounge for Caregivers

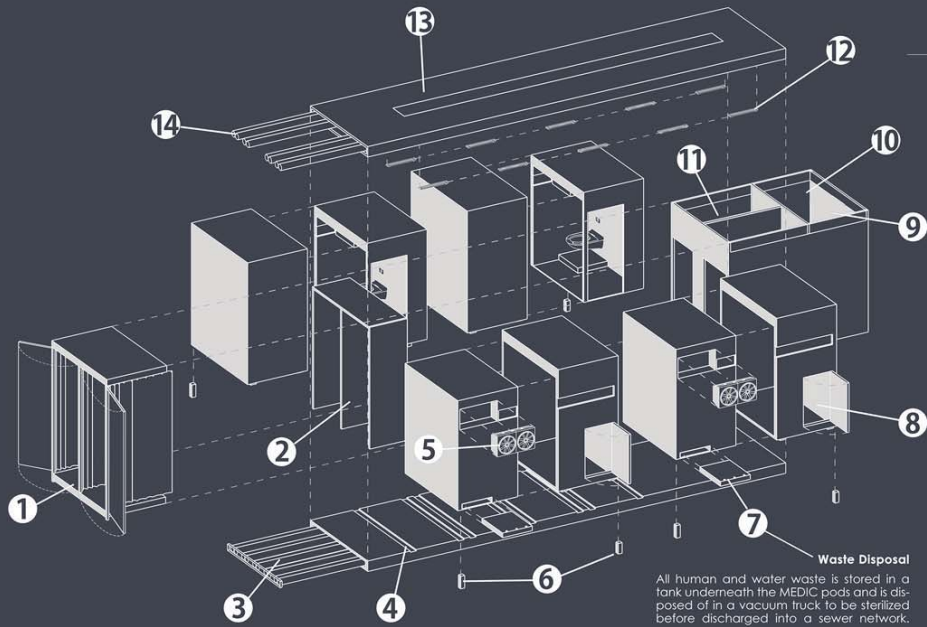
Storage

Patient Unit

Lab

Diagnostic Rooms / Patient Entrance

Service Road



Isometric Diagram

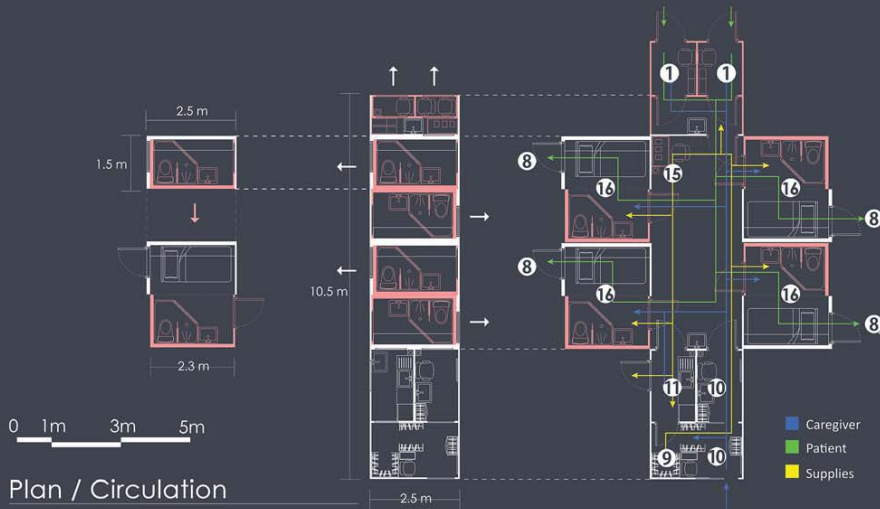
- 1 Diagnostic Rooms
- 2 Supporting Frame
- 3 Water Pipes *
- 4 Floor Decking with Slides
- 5 HVAC System with HEPA Filters *
- 6 Stretchable Footstands
- 7 Replaceable Tank for Waste
- 8 Opening to Transport Patient
- 9 Storage
- 10 Changing Area for Care Givers
- 11 Decontamination Room
- 12 Fluorescent Lamp & UV Lamp *
- 13 Roof with Skylight
- 14 Electric Cables *
- 15 Laboratory
- 16 Patient Rooms

Waste Disposal
All human and water waste is stored in a tank underneath the MEDIC pods and is disposed of in a vacuum truck to be sterilized before discharged into a sewer network.

* HVAC & Lighting System

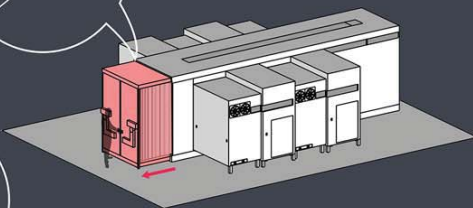
Emergency exits openable for patients to be transported to hospital through ambulance

Patient Living Room

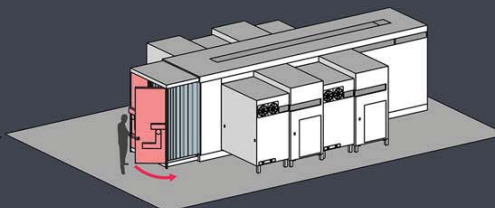


Plan / Circulation

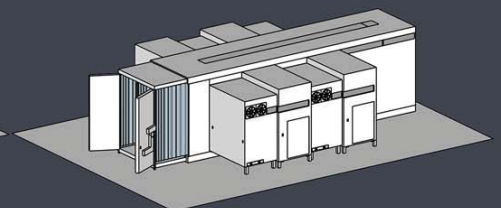
- Caregiver
- Patient
- Supplies



Diagnostic pod is expanded from body

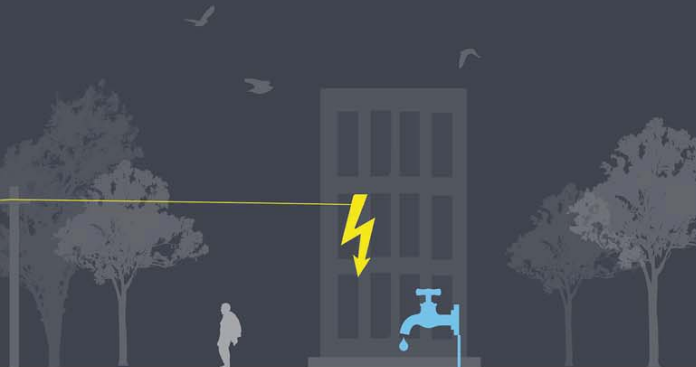


Diagnostic pod is opened



MEDIC is ready for use

Environmental System Diagram



Power and Water Supply from Local Commercial Building

- Water
- Electricity
- HVAC System
- Waste Management

