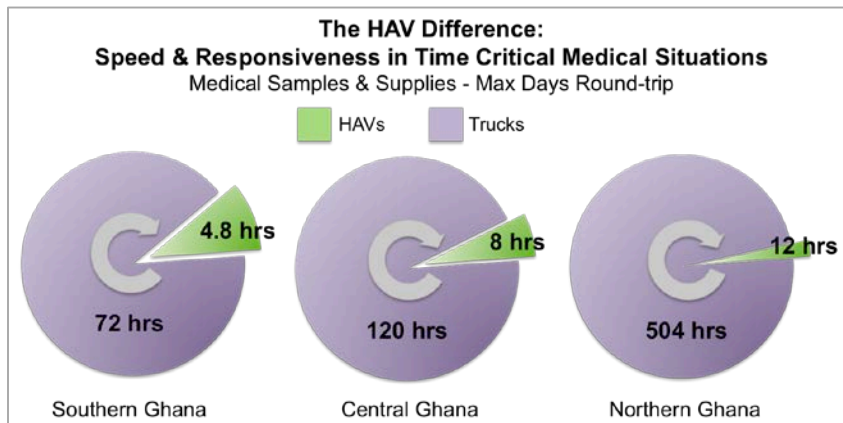


ABOUT MAMA-HELP

The Michigan Aerospace Manufacturers Association’s Humanitarian Emergency Logistics Program (MAMA-HELP) is designed to provide a rapid response to unforeseen emergencies, including deadly contagious disease outbreaks, cyclones, tsunamis, and earthquakes. By providing a coherent and synchronized logistics structure during humanitarian emergencies, MAMA-HELP aims to get what is needed, where it is needed, when it is needed.



The time delay from when a crisis occurs, to when aid and relief arrives, is too often measured in weeks and months, not hours and days. MAMA-HELP comprehensive package of planning and logistics experts leverage unmanned systems with disruptive technologies like Humanitarian Access Vehicles (HAV’s). HAV’s can rapidly respond to a crisis *as it happens*, to provide

relief and save lives in minimum time. The MAMA-HELP focus on preparedness, while leveraging disruptive technology, saves time, money and **lives**.

The result of the MAMA-HELP portfolio mix of logisticians, emergency planners, international expeditors and construction & medical industry professionals is a cost effective and proven model. The MAMA-HELP difference is that for most humanitarian emergencies, MAMA-HELP capabilities and transportation systems can be deployed to treat the infected, ensure essential services, and preserve stability much sooner, because they are already in place. They focus limited resources wisely and effectively to stop a bad situation from becoming worse.

LEGACY FOR GHANA

Building regional medical centers to empower the people of Ghana to protect and enhance their livelihoods

As its proof-of-concept project, MAMA-HELP and its partners will develop the planning, operations and sustainment systems for ten regional Level II Regional Medical Centers (RMC’s) in the Republic of Ghana. These RMS’s will provide much needed infectious disease control and management on a sustained basis. There is an extreme shortage of Level II medical

facilities in West Africa at large. These ten RMC’s in Ghana will lay the groundwork for future development in the region.

In the unfortunate case where there is another regional Ebola outbreak, Ghana will be in position to severely reduce the spread of this disease as well as provide the civil stability for

other treatment facilities, social welfare programs and continuation of national commerce.

The United Nations Mission for Ebola Emergency Response (UNMEER) is located in Ghana’s capitol of Accra and will be vital to coordinating results and disease information.

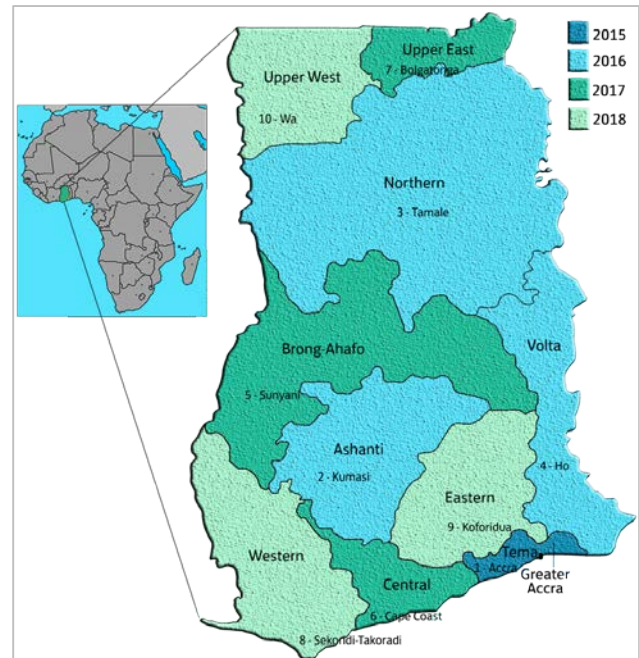
PROGRAM ACTIVITIES

Ghana’s central medical stores facility in the city of Tema was completely destroyed by fire on January 13, 2015. Ghana urgently needs a new central medical storage center and the restocking of critical medical supplies.

The first project MAMA-HELP will complete is the replacement and restocking of the Tema facility. The groundbreaking for this facility will be in November 2015. All of the medicine that Ghana gathered for the Ebola treatment effort was destroyed as well as many other medicines, vaccines, and important medical consumables such as gloves, gowns, masks, syringes, and sterilizing agents. The Ministry of Health in Ghana has sent MAMA-HELP a list of critical medical supplies that need to be restocked immediately. Those items are being donated now.

Regional medical center locations:

1. Greater Accra – Accra
2. Ashanti – Kumasi
3. Northern – Tamale
4. Volta – Ho
5. Brong-Ahafo – Sunyani
6. Central – Cape Coast
7. Upper East – Bolgatonga
8. Western – Sekondi-Takoradi
9. Eastern – Koforidua
10. Upper West – Wa



Specific activities include:

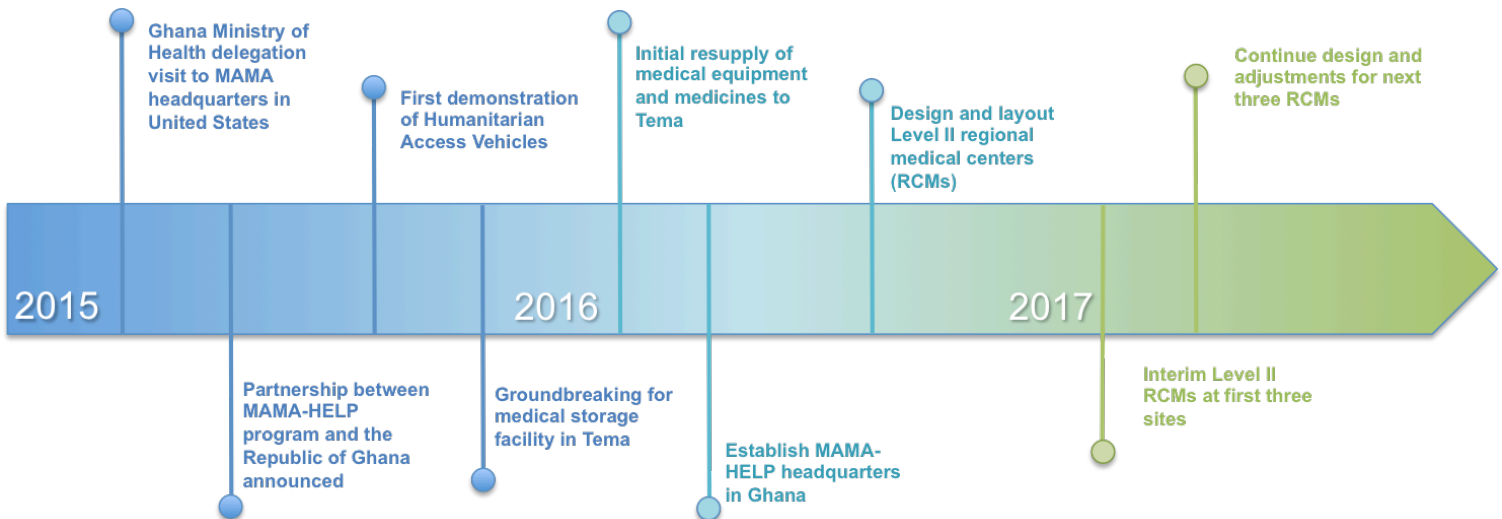
- Provide HAV fleet and continuing operations and maintenance support for rapid, secure delivery of medical supplies, vaccines, and patient laboratory samples to and from ten regional medical centers (RMCs) and one distribution center in Tema.
- Develop HAV systems, operations, communications and logistics support that are optimized for rapid, secure delivery of medical supplies and laboratory samples in regions with limited, hazardous, or non-secure transportation infrastructure.
- Construct, operate, and maintain ten Level II Regional Medical Centers (RMCs) and one national medical storage facility in Tema. In addition, the regional emergency medical centers will be used for treatment of other contagious disease outbreaks and general medical care.
- Provide emergency replacement of a large volume of critical medical property and supplies that was recently destroyed in a fire at Ghana’s Central Medical Stores in the city

of Tema. This is the national medical storage facility that supports all of Ghana’s hospitals and clinics.

- Construct a new, modern Central Medical Storage facility to replace the old Central Medical Stores facility at Tema that was completely destroyed by fire.
- Create a logistics and medical hub in Ghana for Ebola control. The hub in Ghana will then be leveraged to support Ebola control and treatment efforts in other West African countries.
- Assist the development of a more robust medical infrastructure in Ghana that will improve the health of Ghana’s population after the immediate Ebola crisis is over.



The Republic of Ghana delegation visits the Michigan State House.



PROGRAM OBJECTIVES

Creating long-term capability for efficient and rapid medical emergency response

MAMA’s proposal offers great efficiency and flexibility for Ghana and the West African

regional response to the Ebola emergency and other potential pandemic situations:

- HAVs quickly provide clinics in remote locations with critical medical supplies, vaccines, laboratory results and returned patient medical samples.

- HAVs bring cargo straight to the regional medical centers, without having to transport on larger aircraft and then transfer to ground transportation
- The hazards and slow response of ground transport are mitigated.
- Hazardous samples are transported without compromising the safety of humans.
- HAVs operate in locations and environments too remote for manned aircraft.

MAMA will develop the use of HAVs in Ghana based on the needs and requirements of Ghana's response to the Ebola epidemic threat. MAMA planners will maximize the impact of HAVs to the mission. HAVs are survivable without the heavy and complicated support structures and systems that make ground-based cargo aircraft unsuited for emergency response in remote locations.

MAMA experts will design flight routes to optimize support to dispersed remote areas while avoiding overflight of populated areas. They will use communication frequency channels best suited to the specific area(s) while maintaining flexibility to routinely adjust these channels and the related flight routes as required by current local conditions. They will evaluate optionally piloted aircraft for the initial and continuing supply of critical medical supplies and design informatics to promote the sharing of documents among all responders to an Ebola emergency or health pandemic.

MAMA will identify the priority needs and gaps for HAV support in the region, which will enable a better overall health care infrastructure and systemic solution to rapidly scale up the Ebola Response and responses to other highly infectious diseases. This is a priority for the Republic of Ghana, the region and the rest of the world.

FUNDING OPPORTUNITIES

Government agencies, non-governmental organizations, philanthropic foundations and individuals are all contributing financial support. MAMA-HELP is a 501c3 and has fiduciary responsibility for raising, managing and reporting all financial contributions.

Funding for the *Legacy for Ghana* project will come from:

- The Republic of Ghana
- The Michigan Aerospace Manufacturers Association
- The United States Government
- The European Union
- The United Nations
- Philanthropic Organizations
- Aerospace and Medical Companies



Gavin Brown, executive director of MAMA.

Corporations, Non-Governmental Organizations (NGOs) and philanthropic foundations are partnering to provide in-kind and financial resources to develop the *Legacy for Ghana*.

MAMA-HELP is grateful to have these three categories of partners:

- Contributing Partner (financial support)
- Operational Partners (goods and services)
- Coordinating Partners (aligned missions)



Program Summary

Organizations and individuals wishing to partner with MAMA-HELP are encouraged to contact MAMA at (734) 478-5533 or mamahelp@michman.org