



**ADVOCACY CAMPAIGN
TO BUILD A CULTURE OF MAINTENANCE AND REPAIR
TO STRENGTHEN HEALTH SYSTEMS
IN FIFTEEN SUB-SAHARAN AFRICAN COUNTRIES**

Presented by the founding members of the Oxygen Alliance:

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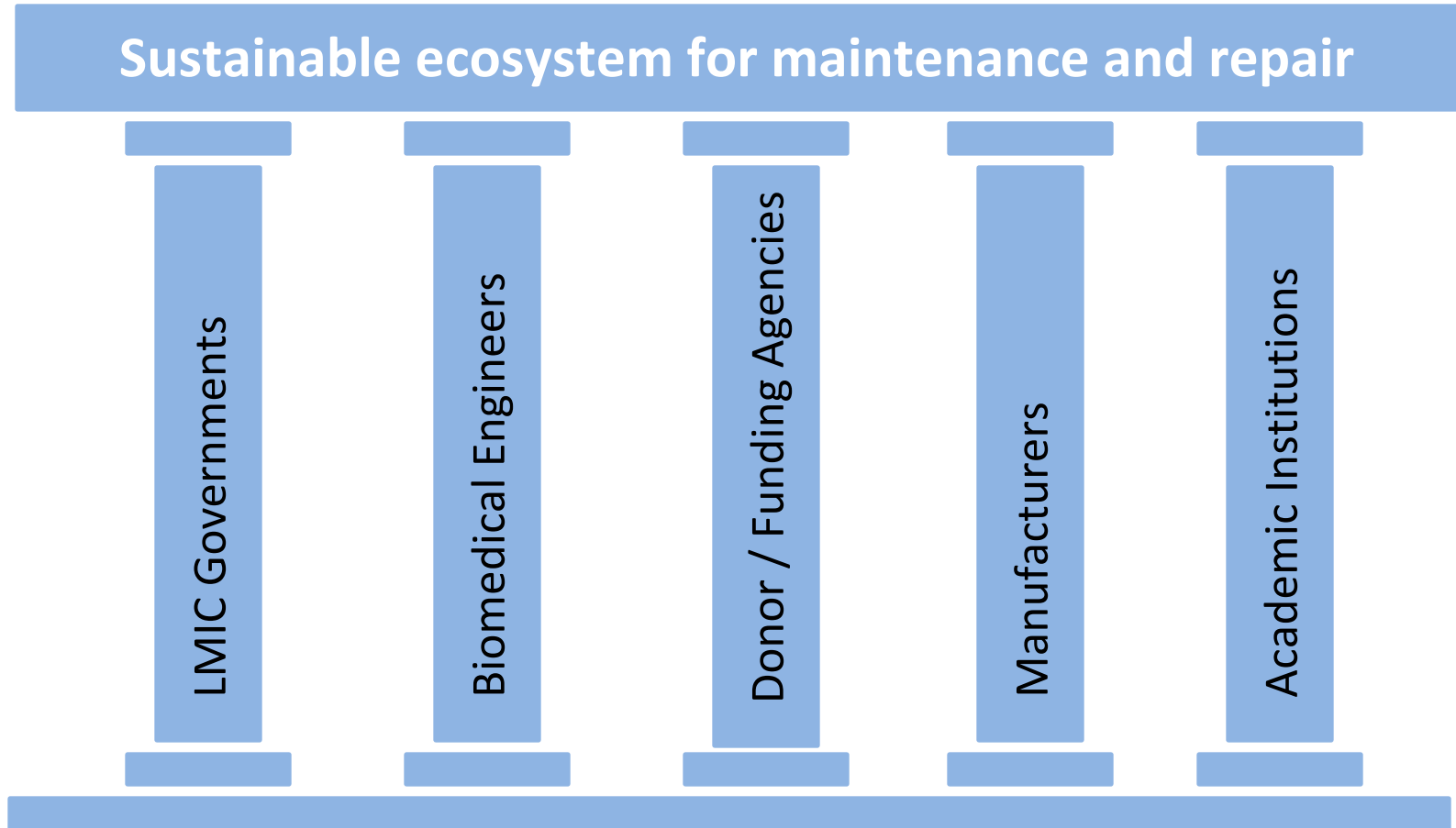
Gerry Douglas, PhD – Founder GHII, Assistant Professor of Biomedical Informatics,
University of Pittsburgh

What problem are we trying to solve?

Decades of government neglect in investing in the biomedical engineering profession to maintain medical equipment combined with willingness of donors to fund the purchase of new equipment rather than advocate for the maintenance of old has left hospitals and patients vulnerable.

Case Study: At the onset of the COVID-19 pandemic in Malawi less than half of the oxygen concentrators in the country were operational and producing therapeutic levels of oxygen.

Five Pillars of an Advocacy Campaign targeting all stakeholders in the maintenance and repair ecosystem across fifteen focal countries over 36 months



Taking a top-down approach, we will launch an advocacy campaign targeting decision-makers in LMIC governments

LMIC Governments

Pillar #1

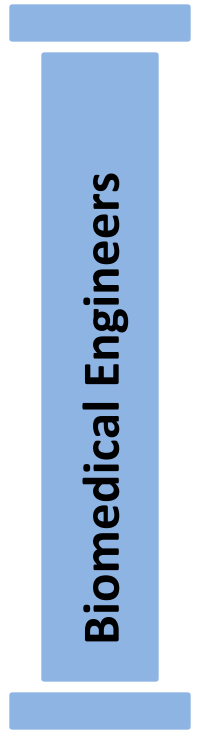
Approach:

- Initial discussions through Zoom meetings to agree on the value of the agenda, enter into a collaboration including local biomedical engineers, researchers, and government officials, ideally all that are members of the Alliance
- In-person visit to initiate the collaboration and kick-start the process of building a body of evidence-based research on the value of maintenance and repair
- In-person visits to review the findings
- Publication of findings
- Drafting of policy briefs to implementing policy changes
- Starting in the second year, annual conferences to present findings across countries

Taking a bottom-up approach, we will launch an advocacy campaign targeting LMIC biomedical engineers

Approach:

- Develop an online platform aimed at supporting biomedical engineers accessible through a web browser and a smartphone app
- Incentivize downloading the app and registration on the platform by giving away tools (e.g. a digital multi-meter or oxygen analyzer) through a lottery system every month
- Make accessible the Oxygen Alliance's Multimedia Library, Concentrator Talk and other up-skilling activities
- Develop policy recommendations for a continual education credit for biomedical engineers - builds trust and accountability



Pillar #2

We will launch an advocacy campaign targeting donors and agencies that fund biomedical equipment for LMICs

Donor / Funding Agencies

Pillar #3

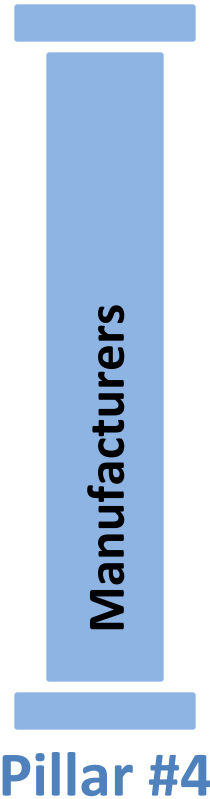
Approach:

- Initial discussions with each organization to understand any policies in-place within their organization regarding the funding of equipment and equipment maintenance
- Engage local country offices or local NGOs to empower the local voices to advocate for what's needed in a country
- Identify the organization that has the most progressive policy (e.g. UNICEF) and use this to generate leverage with other organizations
- Develop a proposed framework for donors to adopt, working in partnership with organizations such as PATH and CHAI
- Advocate for a standard policy among all donors

We will launch an advocacy campaign targeting manufacturers that supply oxygen related equipment

Approach:

- Initial discussions with manufacturers to understand their policies and existing tools for training, service, and support
- Generate programs for virtual trainings, in person trainings, or other easily shareable methods of learning considering low resource settings and LMICs
- Bring biomedical engineers from different countries for in-person training or hold training and repair workshops during the Annual Conference (second year only)
- Obtain commitment for only working with distributors that have on the ground presence and providing them training
- Advocate for a standard policy amongst all manufacturers



We will launch an advocacy campaign targeting academic institutions providing training in biomedical engineering

Academic Institutions

Pillar #5

Approach:

- Catalog academic institutions in each of the focus countries
- Establish a dialog with the program leadership
- Solicit program curriculums and review material on preventative maintenance (PM) and supply chain management (SCM)
- Establish a baseline curriculum on these topics and share back with each institution
- Developing courses for biomedical engineers
- Working with local engineering schools to develop continuing education credits

Proposed Countries

| 2022-23 | 2023-24 | 2024-25 |
|---------------------|--------------|---------|
| Malawi | Ghana | TBD |
| Zambia | Nigeria | TBD |
| Tanzania / Zanzibar | South Africa | TBD |
| Kenya | Mozambique | TBD |
| Uganda | Senegal | TBD |

We will initially target countries where the Oxygen Alliance already has members.



THANK YOU

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