CHAMPS surveillance activities are ongoing in seven countries:

- Kisumu, Kenya
- Manhica, Mozambique
- Soweto, South Africa
- Harar/Kersa, Ethiopia
- Baliakandi, Bangladesh
- Makeni, Sierra Leone
- Bamako, Mali
Recent Accomplishments

- Began enrollment of MITS on community-reported deaths
- Completed 1,540 MITS and 1,101 cause of death results to date
- Launched two greenfield sites in Ethiopia and Sierra Leone
- Published methods supplement in Clinical Infectious Diseases
- Began providing datasets to IHME and other key technical partners
- Began providing datasets to IHME and other key technical partners
CHAMPS Network MITS & DeCoDe PROGRESS

1540 MITS Conducted
1101 DeCoDeDed Cases

Data as of 27 October 2019
Currently over two thirds of CHAMPS cases are stillbirths and neonates.

CHAMPS Enrolled (n=3311):
- Stillbirth: 30%
- Neonate: 38%
- 1-59 mo: 32%

Total:
- 1058 (Stillbirth)
- 1002 (Neonate)
- 1251 (1-59 mo)

MITS Completed (n=1540):
- Stillbirth: 26%
- Neonate: 42%
- 1-59 mo: 32%

Total:
- 493 (Stillbirth)
- 397 (Neonate)
- 650 (1-59 mo)

Data as of 27 October 2019
Stillbirth Underlying causes of death (n=232)

Perinatal asphyxia/hypoxia

- Perinatal asphyxia/hypoxia
- Undetermined
- Syphilis
- Neonatal aspiration syndrome
- Umbilical cord complications

- Infection/Sepsis
- Congenital birth defects
- Placental complications
- Other neonatal disorders

Data as of 27 October 2019
## Neonates Underlying cause of death (n=506)

<table>
<thead>
<tr>
<th>Neonatal preterm birth complications</th>
<th>Perinatal asphyxia/hypoxia</th>
<th>Congenital birth defects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal preterm birth complications</td>
<td>Perinatal asphyxia/hypoxia</td>
<td>Congenital birth defects</td>
</tr>
<tr>
<td>Neonatal sepsis</td>
<td></td>
<td>Other neonatal disorders</td>
</tr>
<tr>
<td>Congenital Infection</td>
<td></td>
<td>Neonatal aspiration syndromes</td>
</tr>
<tr>
<td>Undetermined</td>
<td></td>
<td>Lower respiratory infections</td>
</tr>
<tr>
<td>Neonatal encephalopathy</td>
<td></td>
<td>Syphilis</td>
</tr>
<tr>
<td>Meningitis/Encephalitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data as of 27 October 2019
Infant/child Underlying cause of death (n=348)

- Malnutrition
- Lower respiratory infections
- Diarrheal Diseases
- Sepsis
- Other respiratory disease
- Meningitis/Encephalitis
- Liver Disease
- HIV
- Neonatal preterm birth complications
- Other
- Undetermined
- Congenital Infection
- Sickle cell disorders
- Epilepsy
- Congenital birth defects
- Malaria
- Injury
- Other infections
- Other neurological disorders
- Cancer

Data as of 27 October 2019
Top Pathogens Associated with 193 Pneumonia Deaths in 1-59mo by Presumed* Site of Acquisition

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Community</th>
<th>Facility</th>
<th>Total # cases with pathogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klebsiella pneumoniae</td>
<td>28</td>
<td>36</td>
<td>64</td>
</tr>
<tr>
<td>Streptococcus pneumoniae</td>
<td>47</td>
<td>7</td>
<td>54</td>
</tr>
<tr>
<td>Cytomegalovirus (CMV)</td>
<td>8</td>
<td>18</td>
<td>26</td>
</tr>
<tr>
<td>Staphylococcus aureus</td>
<td>11</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td>Haemophilus influenzae</td>
<td>15</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>Respiratory syncytial virus (RSV)</td>
<td>4</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Pneumocystis jirovecii</td>
<td>6</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Adenovirus</td>
<td>2</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Parainfluenza virus type 3</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Acinetobacterbaumannii</td>
<td>0</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Rhinovirus</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Escherichia coli</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

• Of 340 1-59 mo deaths, 193 (56%) had LRI in causal chain

• More than one pathogen was found in 53% of those cases where an etiology was determined

• 38 cases did not have a pathogen attributed to the pneumonia
CHAMPS Objective

CHAMPS data are valued and used by key individual, community, national and global stakeholders for decision-making.

- Prioritization
- Resource Allocation
- Strategy
- Planning
- Intervention
- Policy
Context for CHAMPS Data to Action

CHAMPS Context
- 7 diverse CHAMPS sites
- Varying stages of site implementation
- Initial results being disseminated
- Future addition and transitions of sites

Public Health Context
- Multiple PH system models and levels
- Varying capacity of PH entities
- Varying engagement of PH entities
- Multiple sources of MCH data
Underlying Principles of Data to Action:

• **Ensure that data to action is a lasting legacy of the CHAMPS program**
• Foster relationships between CHAMPS sites and their NPHIs, facilitating their work together to meet their goals
• Support NPHI/MOH/sub-national public health authorities
• Ensure plans and investments build capacity to use CHAMPS data are in concert with other sources of child mortality data
• Ensure plans and investments are guided by their interpretation and use of CHAMPS data and are integrated into the fabric of the public health system and sustained overtime
• Empower public health authorities to set and achieve their own objectives
• Empower public health authorities to obtain, strengthen, and maintain the capabilities necessary to perform their core public health functions and to set and achieve their own objectives
National Approaches

Support NPHIs to use child mortality data for action

1. Understand NPHI capabilities
2. Explore and foster relationships and synergies between the CHAMPS site, CHAMPS catchment area communities, and NPHIs/MOH
3. Develop a three-year high level outline of the CHAMPS / NPHI data-to-action effort and a one year work-plan
4. Where NPHIs will serve as long-term repositories for CHAMPS data, support development of this capacity
5. Meet with potential partners and others that may be interested in supporting data-to-action efforts
6. Identify opportunities for twinning with other NPHIs
<table>
<thead>
<tr>
<th><strong>National and Sub-National Approaches</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Support the Detection of Outbreaks and Public Health Response</strong></td>
</tr>
<tr>
<td>• Sites implement protocols for identifying and reporting priority, newly diagnosed conditions to local public health authorities</td>
</tr>
<tr>
<td>• Stakeholders identify gaps or challenges in reporting and responding these events, and strategies to address these gaps</td>
</tr>
<tr>
<td><strong>Link Families to Vertical Public Health/Disease Control Programs</strong></td>
</tr>
<tr>
<td>• Sites implement protocols to return HIV and TB results to families and notifying these programs (for new diagnoses) for family follow up</td>
</tr>
<tr>
<td>• Sites link families and/or relay findings to vertical public health programs where findings indicate programs should be engaged (e.g. nutrition, malaria control, immunization)</td>
</tr>
<tr>
<td>• Stakeholders identify gaps or challenges in following up with families and linking to care, and strategies to address these gaps</td>
</tr>
<tr>
<td><strong>Strengthen Capabilities to Use PH Data</strong></td>
</tr>
<tr>
<td>• Sites/MOHs/NPHIs identify PH stakeholders who would benefit from using CHAMPS data in concert with other surveillance data</td>
</tr>
<tr>
<td>• Sites/MOHs/NPHIs (with IANPHI support as needed) engage stakeholders to understand their priorities and capacity gaps related to data use</td>
</tr>
<tr>
<td>• Stakeholders develop work plan to address priorities and capacity gaps, with CHAMPS data to action funding to support as needed</td>
</tr>
<tr>
<td><strong>Support Response to Other Priority Public Health Issues</strong></td>
</tr>
<tr>
<td>• Sites/MOHs/NPHIs identify other opportunities for public health action based on CHAMPS data</td>
</tr>
<tr>
<td>• Stakeholders identify pathways through which sites can or do link to public health programs or authorities to take appropriate, and strategies to address these gaps</td>
</tr>
</tbody>
</table>
Community Approaches

Engage communities to identify priorities for action in response to CHAMPS findings

- CHAMPS sites develop and implement community engagement strategies to strengthen partnerships with local trusted community organizations to address communities' priorities on maternal and child health
- CHAMPS sites hold community feedback sessions to share key, aggregate findings with stakeholders and hold dialogue to inform the identification of appropriate public health responses, strategies, initiatives and interventions at the local level

Ensure community priorities inform data to action plans

- As data to action plans are developed, CHAMPS ensures that site community engagement teams are linked with NPHIs/MOHs and involved in planning processes
- As data to action plans are carried out at various levels, CHAMPS ensures that communities comprising the catchment area participate in relevant data to action activities
CHAMPS Phase II Priorities

**Network-Wide Activities**
- Establish consistent engagement and follow up with sites on data to action opportunities coming from DeCoDe findings.
- Continue developing **case studies** documenting the use of CHAMPS child mortality data within the public health system.

**Data to Action Investments**
- Continue to advance national and sub-national investments and ensure alignment with CHAMPS findings and recommendations and community priorities for data to action.

**Strategic Priorities**
- Develop strategies and plans for **global data to action approaches**.
CHAMPS Support of Data to Action

National Level
• Bangladesh Institute of Epidemiology Disease Control and Research (IEDCR)
• Ethiopia Public Health Institute (EPHI)
• Mozambique National Institute of Health (INS)

Subnational Level
• Kenya Department of Health, Kisumu County, Kenya

Projects remain to be developed in South Africa, Mali and Sierra Leone.