By: Caroline Mutai
Title: Project Coordinator
Organization: Heart Attack Concern Kenya
Training of healthcare workers in select County hospitals on ACS and STEMI diagnosis and management.
Acknowledgement

• Philips Foundation
• Philips East Africa
• Ministry of health
• County Governments of Kiambu, Embu and Garissa
Project Overview

Aim: The Project aims to improve preparedness for recognition, diagnosis, prompt and appropriate treatment for heart attack patients in 3 counties, namely: Kiambu, Garissa and Embu

Intervention:
- Development of STEMI guidelines, training of health workers and mentorship
- Equipping of facilities with ECGs and training
- Strengthening heart attack referral systems
- Educating the public on recognition of heart attack symptoms and appropriate care
- M&E for learning and policy advocacy

Project duration: 12 months
A collaboration between Heart Attack Concern Kenya, Philips Foundation and County Government of Kiambu, Embu and Garissa

Main purpose was to improve access to timely and quality heart attack care for the inhabitants of the three pilot Counties

A baseline survey revealed inadequate skills and knowledge in ECG diagnosis and Acute Coronary Syndrome (ACS) care
Objective

To equip the healthcare workers in the selected facilities with the necessary skills and knowledge:

• To perform and interpret an ECG.
• Knowledge on acute coronary syndrome.
• Management of complication of STEMI (ACLS and BLS) in the context of STEMI and its anticipated complications.
**Aim:** Advance knowledge, understanding and skills of institutionally selected healthcare workers from the leading facilities of the three counties.

**Phase 1**
- Developed a modular ACS training course delivered largely virtually
- Three-hour webinar training session for three days

**Phase 2**
- Physical (Face to Face) training session for 2 days in each county.
- Focused hands-on training in a hybrid system

**Topics Covered**
- Fundamental of ECG
- Introduction to ACS
- Introduction to ACLS/BLS
Training of Healthcare Workers
Pre-training Test Results

Prior life support training as per the 3 areas:

- 59% of healthcare workers had BLS training
- 22% had Advanced Cardiac Life Support (ACLS)
- 19% had no prior training on life support
Ability of healthcare workers to obtain 12-Lead ECG

<table>
<thead>
<tr>
<th>Test</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>40.7</td>
<td>59.3</td>
</tr>
<tr>
<td>Post-test</td>
<td>97.1</td>
<td>2.9</td>
</tr>
</tbody>
</table>
Pre and Post Test Impact analysis

Confidence level of healthcare workers in diagnosis of ST-elevation MI based on clinical presentation and ECG findings

Post Test
- 87.2% Very Confident
- 12.8% Others

Pre-Test
- 48.1% Not all Confident
- 34.5% Somewhat Confident
- 7.4% Very Confident
Confidence level to perform high quality CPR

Pre-test:
- Not at all confident: 25.9%
- Somewhat confident: 59.2%
- Very confident: 14.8%

Post-test:
- Not at all confident: 34.3%
- Somewhat confident: 65.7%
Use of a manual defibrillator

Use of a manual defibrillator

Not at all comfortable

Somewhat comfortable

Very comfortable

Pre-test  Post-test
Outcomes Due to Training
Monitoring of Project (Indicators)

Number of ECGs done in the last 8 months

- Embu: 178
- Garissa: 446
- Kiambu: 338
Time to ECG Performance

ECG Performance

- 10 minutes: 383
- 10 - 30 minutes: 29
Patients Diagnosed with Chest Pain

Chest Pain

- ACS: 1
- MI: 9
- Chest Pain: 244

No Yes

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No Yes
Conclusion

- Training has conferred healthcare worker with the necessary skills of diagnosing and managing STEMI at level 5 and level 4 hospital.
Intubation of Patient

Healthcare workers in Garissa trained on proper intubation of patients in emergency situations.
Basic Life Support Training for Health Care Workers

CHVs being trained on basic life support
Health Care team from Embu, Garissa and Kiambu
Thank You