Education and Training of Medical Physicists in Africa - Role of FAMPO

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Chair, E&T Committee
FAMPO
Data of Africa

- **Population:** 1.2 b
- **Land Area:** 30.2 mil km²
- **Countries:** 55
- **IAEA MSs:** 38

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<tr>
<th>Region</th>
<th>Co-60 EBRT</th>
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<tbody>
<tr>
<td>North Africa</td>
<td>42</td>
<td>165</td>
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<tr>
<td>Middle Africa</td>
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<td>22</td>
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<tr>
<td>Southern Africa</td>
<td>10</td>
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*Source: DIRAC, June 2017*
Background

- Postgraduate medical physics academic programme:
  - introduces students to basic principles of medical physics.
  - prepares them for hospital-based clinical training programme.
- Academic programme provides partial fulfillment for recognition as CQMP.
- Supervised hospital-based clinical training programme develops skills and competencies necessary for trainees to practice in the clinical environment.

Source: IAEA (2013), Academic and Clinical Training Programmes and Portfolios for the Regional Training in Medical Physics
Background

Basic degree in Physics (or equivalent academic degree) 3-4 years

- Post-graduate programme in Medical Physics 1-3 years
- Complete appropriate courses in Medical Physics
- Supervised Clinical Experience

ACCREDITED PROGRAMMES

Medical Physicist (MP)

Certification / Re-certification

CPD

State registration

Source: IAEA (2013), Academic and Clinical Training Programmes and Portfolios for the Regional Training in Medical Physics
Contribution By IAEA / AFRA

• Training and recognition of medical physicists in Africa faced challenges in times past.

• Through IAEA and AFRA, three publications on E&T of MPs in Africa have been produced.
  ✓ TFMs held under RAF RT MP (RAF 6/027, RAF 6/031 and RAF 6/044) and NM MP (RAF 6/032, RAF 6/038 and RAF6048) projects.

• Approval of centres to be recognized as Regional Designated Centres (RDCs) for academic and clinical training.
Academic and Clinical Training

• FAMPO plays essential role in E&T of MP.

• FAMPO has endorsed IAEA/AFRA publications.
  ✓ Regional Postgraduate Medical Physics Syllabus for Academic Programmes (2013)
  ✓ Regional Clinical Training Programme for Radiotherapy Medical Physics (2013)
  ✓ Template Portfolio for the Regional Clinical Training Programme in Radiotherapy Medical Physics (2013).

• Publications have largely harmonized standard of MP academic education in the region.

• MP RDCs are established in ALG, EGY, GHA, MOR and SAF.
Academic and Clinical Training

• Ongoing efforts to implement FAMPO accredited clinical training for MPs.

• Two TFMs held in 2016 (collaboration between IAEA and FAMPO):
  ✓ Survey to assess capability and willingness of RT centres to provide full/partial accreditation of clinical training programme performed.

• Workplan for implementing accredited clinical training is aligned with workplan for IAEA’s TC Project RAF 6050.
  ✓ Improving Access to Quality Cancer Management through Sustainable Capacity Building

Credit: http://gsmpghan.org
Academic and Clinical Training

Fig 1: Staffing Levels in centres

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<tr>
<th>Centre</th>
<th>ROs</th>
<th>RTTs</th>
<th>CQMPs</th>
<th>MP Interns</th>
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Fig. 2: Accreditation being sought by centres

- EBRT - Electrons (29%)
- EBRT - Photons (30%)
- Brachytherapy (19%)
- kV Therapy (8%)
- Cobalt 60 (14%)
Recognition of MPs

- Countries with proper **legislation** (national recognition) of MPs:
  - South Africa (HPCSA)
  - Ghana (AHPC)

- Other countries are at various stages of legislative processes
Recognition of MPs

• Professional Development Committee (PDC) of FAMPO is:
  ✓ mandated to establish regional mechanism by which CQMPs can be recognized through formal process of certification and registration.
  ✓ working closely with E&T Committee to help increase the number of accredited academic training programmes and establish accredited clinical training programmes in the region.

• This is necessary for:
  ✓ development MP profession in the Africa region.
  ✓ ensuring that trained MPs from accredited institutions automatically receive registration from FAMPO.
FAMPO’s Role

- Championing the adoption of the IAEA/AFRA published documents on education and training of MPs in the region
- Providing advice on the establishment of AFRA RDCs for the training of medical physicists in Africa
- Encouraging mentorship of sister centres in the region by recognized RDCs so as to achieve many more RDCs
- Developing workplan and strategies for the establishment of accredited MP clinical training programmes in the region
Conclusion

• FAMPO’s role is key to achieve harmonized and high standard of education and training programmes in Africa, which leads to:

  ✓ improved quality and quantity of trained MPs who would readily be in position to practice competently and independently

  ✓ improved medical imaging and radiotherapy treatment delivery in the region
Acknowledgement

Thank You