How basic economics can improve sustainability for national EQA providers
Outline

- Oneworld Accuracy
- What is collaborative EQA?
- Five practical suggestions to improve EQA sustainability
- Open source EQA Sustainability dashboard
Oneworld Accuracy
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- Started operations in 2000
- Based in Vancouver, Canada with satellite office in Messina, Italy
- Social enterprise commitment to make EQA globally sustainable
- Directly manage accredited national EQA programs in Canada, US + Europe
- +200 accredited programs
- Coordinator to collaborative EQA
What is collaborative EQA?

- Goal is to help governments start or improve national EQA programs
- Provide informatics, training, business development
- Help develop sample strategy
  - make or procure in-country wherever possible (with training)
  - adopt samples from +200 accredited programs wherever needed
- Meet international standards with sustainable cost structure
  - samples / shipping / training at cost
  - informatics within every budget
Collaborative EQA

Advances tenets within this manual
Trained > 30 African public health stakeholders
Five practical suggestions
1. Create a business plan

A goal without a plan is just a wish.
1. Create a business plan

EQA providers need to plan for long-term sustainability

- Start with legal framework for EQA
- Define cost structure
  - fixed – occupancy / staff / equipment
  - variable – sample sets / shipping
- Informatics
- Revenue models
- End-user price list(s)
- Funding model
- *What happens when international funding ends?*
2. Select programs based on LBD
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EQA providers should select programs that correspond to their LBD (local burden of disease)

- Definitive dataset of GBD and LBD - Institute for Health Metrics and Evaluation (IHME) of the University of Washington
  - premature deaths (YLLs, yearly lives lost)
  - disability (YLDs, years lived with disability)
  - sum of both (DALY, disability-adjusted life years)

https://vizhub.healthdata.org/gbd-compare/
3. Prioritize participants by test volume
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EQA providers should allocate participants based on patient test volumes

- An EQA subscription has a fixed cost independent of patient test volume
- However, the value scales directly with patient test volume
Example – $500 viral load program

Lab A

1,200 patient results / year
EQA costs $0.42 / patient result

Lab B

12,000 patient results / year
EQA costs $0.04 / patient result
4. Prioritize follow-up by patient impact
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EQA providers should prioritize remedial follow up based on patient impact

• Without patient test volumes, follow up is typically based on failure rates

• This could lead to a misallocation of resources
Example – $2,000 remedial follow-up

Lab C

- 1,200 patient results / year
- 20% pass / 80% failure
- 960 affected patient results
- FU costs $2.08 / affected patient result

Lab D

- 12,000 patient results / year
- 80% pass / 20% failure
- 2,400 affected patient results
- FU costs $0.83 / affected patient result
5. Provide ROI for EQA funders
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If EQA is an investment, not a cost, what is its ROI?

• Reduced re-testing due to greater doctor’s confidence in quality
• More timely treatment
• Better healthcare outcomes
• Delivering credible ROI facilitates EQA funding
EQA Sustainability Dashboard

Developing an open source dashboard as a resource for EQA providers

Making improvements requires measuring progress

1. business plan template
2. link curated data on local burden of disease from IHME
3. map disease burden to specific tests and associated EQA programs
4. add participants’ test menus and test volumes
5. properly cost EQA programs
6. include standard troubleshooting checklists by discipline
7. develop cogent ROI models for EQA with healthcare economists
Thank-you

Questions / comments

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