Leading with Care – AMPATH Purdue Kenya Partnership
The Virtuous Cycle of Academic Engagement

Care

Teaching

Research
Leading with Care
Academic Model Providing Access To Healthcare

- Initiated in November 2001
- >500 care sites across western Kenya
- Catchment population ~ 8 million
- ~200,000 people living with HIV actively in care
AMPATH Comprehensive Care

- **Chronic Disease Management**
  - Hypertension
  - Diabetes
  - HIV
  - Mental Health
  - Cardiology
  - Pulmonology
- **Specialty care**
  - Tuberculosis, malaria prevention, palliative care
- **Maternal and Child Health**
- **Cancer**
- **Surgery**
Working Across the Health System to Deliver Comprehensive Services

- National Referral Hospital - 1
- District Hospitals - 36
- Health Centers - 98
- Dispensaries - 347
- Community Network - ~1500
Supply Chain Limitations

Patient is sick → Travels to health facility → Patient sees physician, receives prescription → Patient goes to pharmacy

60% chance
Drugs Stocked Out!

Go without drugs
- Wasted time and money
- Poor health outcomes

Commercial Pharmacy
- 10X higher prices!
- 30% drugs counterfeit

Wasted time and money
Poor health outcomes
Solution – Revolving Fund Pharmacy

- Seed Funding: Initial medicine supply, set up of the pharmacy
- Revolving Fund Pharmacy
  - Replenish inventory
  - New pharmacies
  - Improve facilities
  - Sustain auditing
  - Medicines sold (Access ensured)
  - Funds generated
- SUSTAINABILITY
  - Social impact on the community
  - Creating access to affordable medicine
  - Economic impact on the community
  - Creating access to effective medicine
Partners and Roles

**Revolving Fund Pharmacy Team**
- Provide oversight and management support
- Facilitate procurement of drugs

**Ministry of Health**
- Day-to-day operations management

**Community Leaders**
- Represent community voice
- Provide feedback
- Communicate accurately with community
THE REPUBLIC OF KENYA
THE COUNTY GOVERNMENT OF BUSIA
HEALTH SERVICES FUNDING BILL 2014
A BILL FOR

An Act of Busia County Assembly to promote partnerships in the provision and
delivery of health and pharmaceutical services in the County; to mobilize
resources for the delivery of services; establish revolving funds in health
facilities in the County to facilitate the acquisition of medicines, pharmaceuticals
and diagnostics; and to ensure reliable and cost effective access to important
medicines and connected matters.

ENACTED by the County Government as follows:

PART I - PRELIMINARY

1. This Act may be cited as the County Health Services Funding Act,
2014, and shall come into operation on such date as may be appointed
by the Executive Committee Member and published in the Gazette.
IUSM collaborates with MUSM/MTRH in Eldoret, Kenya to enhance medical education and develop healthcare leaders.

USAID-AMPATH Partnership started to address HIV Epidemic.

AMPATH expands beyond HIV.

Supply Chain Timeline:
- 1989: IUSM
- 2001: MUSM/MTRH in Eldoret, Kenya
- 2007: Ampath
- 2008: Availability
  - Revolving fund pharmacy starts
- 2009: Training
  - Evaluation of Kenyan and North American Training
- 2010: Counterfeit Detection
  - Paper test cards introduced into supply chain
- 2011: Peer Delivery
  - Introduction of peer support
- 2012: Over 140,000 active patients on HIV treatment
- 2013: Over 4,000 medications sampled
- 2015: Over 2,500,000 prescriptions filled
- 2019 (present): Over 15,000 HIV and 300 NCD patient encounters

IUSM-Indiana University School of Medicine, MUSM-Moi University School of Medicine, Moi Teaching and Referral Hospital

AMPATH-Academic Model Providing Access to Healthcare
Established one of the first clinical pharmacy training programs in the developing world.

ClinPREP Residency

Over 100 peer reviewed presentations and papers.

Oncology/Multiple Myeloma

Increased access to essential medicines by over 50% throughout western Kenya.

Clinical Training

Research

Revolving Fund Pharmacy

Planning underway to establish a more clinically focused school.

Medication Safety

Pharmacy School Development

Reliably dispenses medications to over 140,000 patients without a stockout.

Peer Based Support

Ear, Nose & Throat

Increased access to essential medicines by over 50% throughout western Kenya.

Anticoagulation

HIV Dispensing

Reliably dispenses medications to over 140,000 patients without a stockout.

Substandard Medication Detection

Informatics

Nationwide detection program underway. Utilizes novel paper test cards to reliably test medications.

Inpatient Care

Chronic Disease/BIGPIC

Tumaini Children Center

Introducing a scalable hands on method of education for highly vulnerable street youths.

Implementing a microfinance linked group care approach to revolutionize rural care delivery.
AMPATH Training Approach
MTRH Clinical Pharmacy Centre of Excellence

Traditional Role of Pharmacist vs. Emerging Role of Pharmacist in Clinical Teams

Role of Pharmacist:
- The pharmacist sits in the pharmacy and doesn't meet patients

Role of Clinical Pharmacist:
- Part of medical team providing direct patient care during ward rounds
- Sensitizes patients about side effects in order to monitor and identify them
- Recommend the best medication to give based on the symptoms and unique characteristics of the patient
- Counsels the patient and family on medication use

About the Programme

Teaching
- Creation of Clinical Pharmacy Training Programme
- Six Months Clinical Pharmacy Internship
- 72 Pharmacists gone through internship at MTRH
- One year Post graduate Diploma in Clinical Pharmacy
- 16 Clinical Pharmacists graduated
- Three year Masters in Clinical Pharmacy
- 14 Clinical Pharmacy specialists in training

Research
- Engage in Research to Optimize Care and Improve Quality of Care
- 65 Scientific research articles and two book chapters published
Expansion of Kenyan Clinical Pharmacy Trainees

Cumulative Number of Enrollees by Year

Clinical Residency
- Post Graduate Diploma in Clinical Pharmacy
- Post Graduate Diploma in Clinical Pharmacy - PROFICIENCY COURSE
- Masters in Clinical Pharmacy
- Interns
## North American Learners within PKP

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<th>Year</th>
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Cumulative AMPATH Research & Training Grants by Year
(Direct Cost Total = $129.6 million)
AMPATH Research Support by Funder Type in 2018 and Since 1998
Publications from AMPATH since 1989 (n=671)
Publications from PKP since 2004 (n=70)
Screening for diabetes and hypertension in a rural low income setting in western Kenya utilizing home-based and community-based strategies

Sorai D Patela1,2,3, Shamim M Ali2, Jerome H Kamano2, Constantine O Akwanda3,4,5, Sammy K Ndogo1,6, Victor L Buckwalter2, Rajesh Vedanthan2 and Gerald S Bloomfield2

Research to Inform Practice

Effective Chronic Disease Care

The Lancet Diabetes & Endocrinology Commission

Diabetes in sub-Saharan Africa: from clinical care to health policy

Diabetes in rural Africa: what can Kenya show us?
PKP Grantsmanship since 2008
(Total=$6,931,000 in Cash Grants)
Multi-sectoral Partnerships

Private Sector Partnerships

- PEPFAR
- USAID: United States Agency for International Development
- MOH: Ministry of Health
- NIH: National Institutes of Health
- CDC: Centers for Disease Control and Prevention
- MTM: University of Minnesota Tropical Medicine
- Dow AgroSciences
- Abbvie
- Pfizer
- Celgene: Committed to improving the lives of patients worldwide
- Lilly
- Boehringer Ingelheim
- Elanco
- Abbott
- Takeda
MOH-AMPATH Vision

Achieve optimal health and social well-being for the population of Western Kenya through improved access to services that promote health and wealth, prevent and manage disease, and provide high-quality care at all levels of the health care delivery system.

What is Population Health?

Population health is an integrated model of care delivery aimed at improving outcomes of health and social well-being by comprehensively addressing the biological, social, and structural determinants of health using a community-centered approach for a defined geographic population.

STRATEGIC OBJECTIVE

Maximize the Power of Community Groups

Create the maximum number of community groups within the model catchment and use them as an entirely new platform of healthcare delivery. This requires us to completely re-envision what healthcare can look like in rural populations.

Create a Seamless Care System

Create a seamless care system from village to tertiary center inclusive of a fully deployed electronic information system supporting care and self-correction.

Fully Partner with NHIF

Assist the National Hospital Insurance Fund (NHIF) in adapting the MOH-AMPATH care network into a fully functioning health insurance scheme responsive to the needs of the poor.
DISCUSSION

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