



TOR VERGATA
UNIVERSITÀ DEGLI STUDI DI ROMA



CHAO KENYA
Comorbidities in HIV/AIDS
Outpatients STUDY



CHAO STUDY

COMORBIDITIES IN HIV/AIDS
OUTPATIENTS IN MERU COUNTY
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DREAM Kenya Trust.

INTRODUCTION



- CHAO study was undertaken in Meru county, Eastern Region of Kenya from November 2022-October 2023.
- Jointly undertaken in collaboration with DREAM Kenya Trust, Department of Health - County Government of Meru, University of Rome Tor Vergata and Community of Sant' Egidio DREAM Program.
- The study was funded by Italian Agency for Development and Cooperation.



INTRODUCTION



- Study Design: Cross sectional
- Sample size-1051 (Female 791(75%),Male 260 (25%))
- 25 primary health care facilities offering HIV services in Meru county were involved. (20 public health facilities and 5 mission hospitals).

BACKGROUND:



- Main objective of the study: To provide information on comorbidities in PLHIV in Meru county, Kenya.
- Access to HAART has changed HIV epidemic from acute to chronic disease process in the last two decades.
- Increased life expectancy among PLHIV has shifted the causes of death from AIDS to non-AIDS related causes such as; tuberculosis, hypertension, diabetes, hepatitis, obesity, syphilis, dyslipidemia, and kidney diseases (Lerner et al., 2020).

BACKGROUND



- Compared to the general population, PLHIV are more likely to develop comorbidities (CMs) due to the effects of ART, the HIV itself, and the increased risk associated with ageing.

- Study was informed by identified gap of lack of data on prevalence and impact of coinfections & comorbidities in HIV patients in Meru county. (Kenya HIV& AIDS Research agenda 2014/2015-2018/2019)

BACKGROUND: COMORBIDITIES STUDIED.

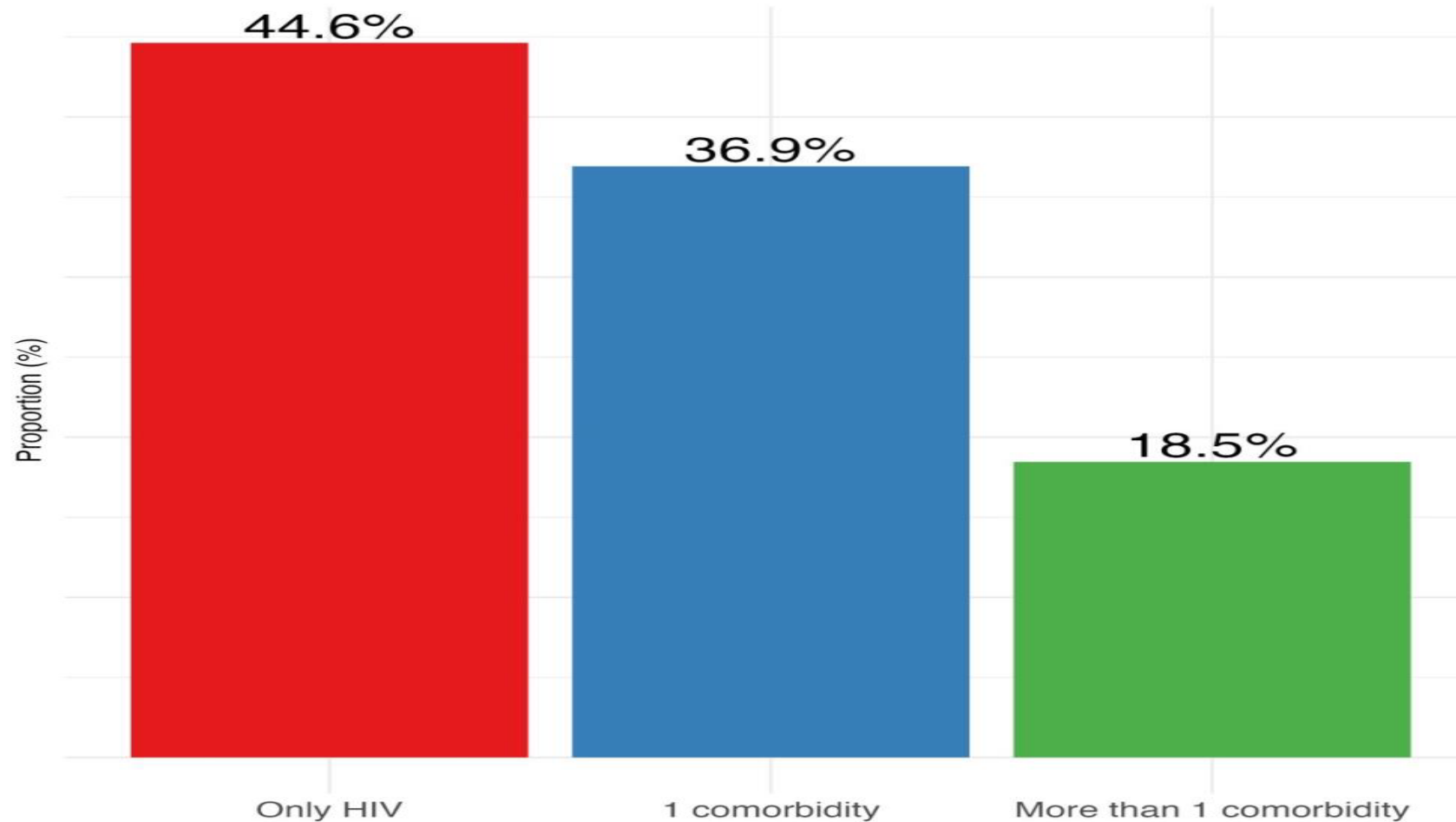
Non communicable

- Hypertension
- Diabetes
- Dyslipidemia
- Underweight
- Obesity

Communicable

- Syphilis
- Tuberculosis
- Hepatitis B
- Hepatitis C

RESULTS: PROPORTION OF HIV POSITIVE PATIENTS WITH SINGLE AND MULTIPLE COMORBIDITIES



DESCRIPTIVE ANALYSIS: PROPORTION OF HIV POSITIVE PATIENTS WITH SINGLE AND MULTIPLE COMORBIDITIES

Implications

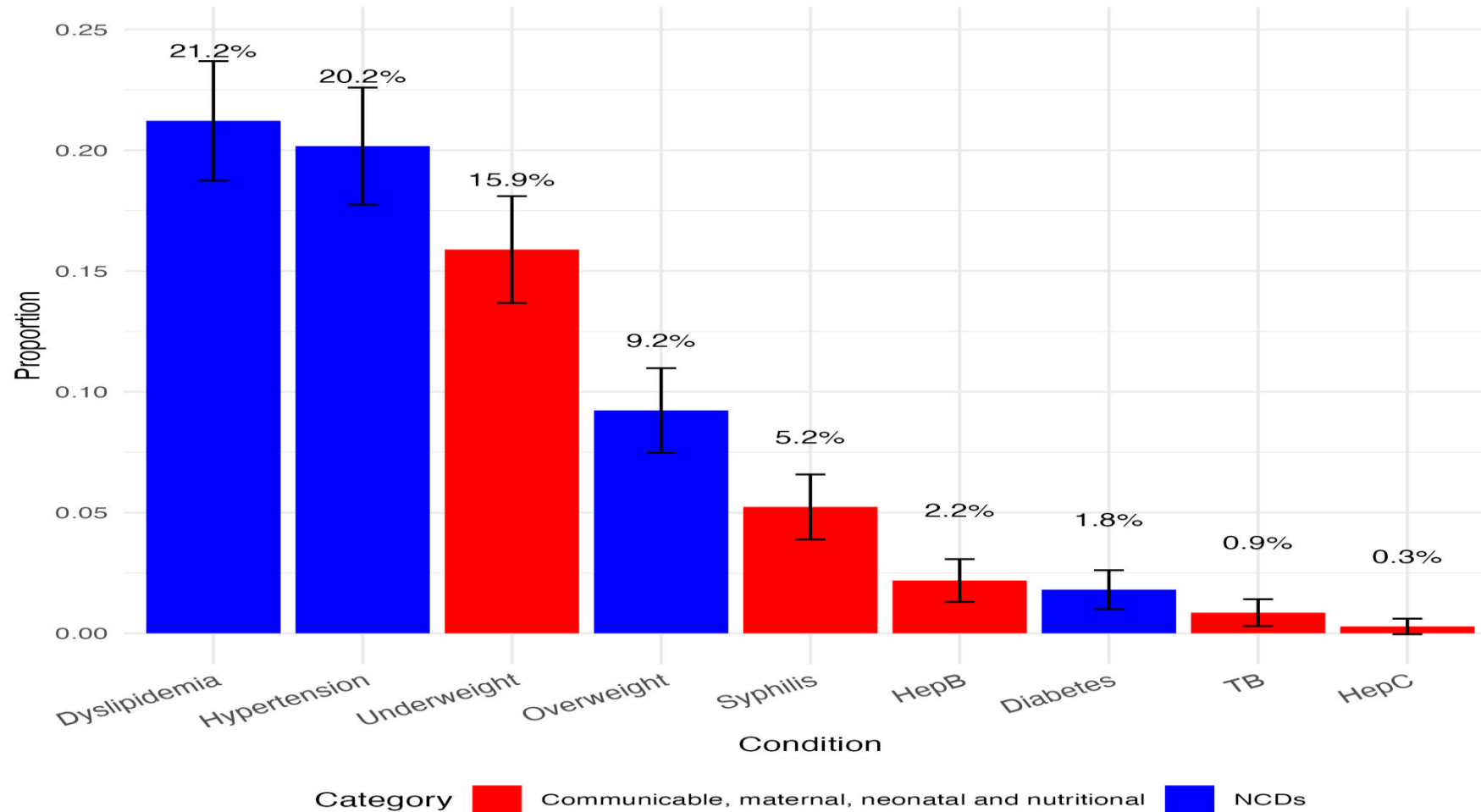
Increased cost of treatment per patient;

- i. Drugs for treatment of comorbidities and coinfections
- ii. Laboratory diagnosis and monitoring
- iii. Capacity building of healthcare providers.

Insights

- Integration of services can ensure holistic approach to a patient at the point of care. (increased efficiency)
- Widening of the scope of comorbidity monitoring in PLHIV

RESULTS: PREVALENCE OF COMORBID CONDITIONS IN HIV POSITIVE PATIENTS.



RESULTS: PREVALENCE OF COMORBID CONDITIONS IN HIV POSITIVE PATIENTS.

a) Dyslipidemia prevalence 21.2%

Key gaps identified;

- Inconsistent monitoring of PLHIV for dyslipidemias.
- Unavailability of drugs to treat dyslipidemias in health facilities
- Inadequate skills on diagnosis and management of comorbidities among HCP working in HIV clinics .
- Information gap, myths and misconceptions among other barriers to positive living, derail efforts towards mitigation of effects of comorbidities.

RESULTS: PREVALENCE OF COMORBIDITIES

HCP comments;

- *“....Patients may eat excessively to become huge so that society may not associate their weight loss to HIV..... Some communities consider people who engage in physical exercises as mad, which makes initiatives such as jogging odd.....”*
- *“So they want to remain huge. Yeah. Because everyone thinks when you're slim, you're positive,”* CO at MTRH.

RESULTS: PREVALENCE OF COMORBIDITIES

b) Hypertension.

Prevalence-20.2%

This triggered a discussion that identified importance of measures such as;

- Capacity building of CHPs providing services in the community.(Screening of Hypertension and provision of health education)
- Integration of screening and treatment of hypertension in HIV clinics
- Resource mobilization ,to ensure access to antihypertensive drugs is free of charge or at subsidized rates.
- All clinics to line-list patients with hypertension (And other NCDs) and focused clinics.

RESULTS: PREVALENCE OF COMORBID CONDITIONS.

c) Underweight and Overweight.

- Study prevalence of 15.9% and 9.2% respectively showing the diversity of nutritional conditions in the county.
- While patients sampled from facilities near town may have showed trends leaning towards obesity, patients in rural facilities mostly had undernutrition.

Significance of this information;

- Tailoring of region based specific health education and awareness programs.
- Routine nutritional assessment, monitoring and availability of relevant interventions.
- Promotion of intersectoral collaboration toward mitigating factors associated with malnutrition.(health, agriculture, finance,education ,NDMA,ASAL programs etc)

RESULTS: UNDERWEIGHT AND OVERWEIGHT.

HCP comments;

- *“Most patients here are undernourished. In previous months we have had several droughts, and famine. That has contributed to shortage of food supplies,”* CO at Mutuati SCH.

- A clinical officer at St. Theresa Mission Hospital Kiirua said;
“Basically it is about what they eat, and exercises...most of them do not involve in physical exercises. And most believe that junk food is the best. So when you have that weight gain, then you are healthy...that's what people think.”

RESULTS: PREVALENCE OF COMORBID CONDITIONS

d) Syphilis 5.2% prevalence

- STI that has largely been neglected in the past.
- Now included as part of Triple Threat Elimination intervention in PMTCT.

Significance of the findings:

- Reinforces observation by county health team, that there was high prevalence of syphilis among antenatal mothers.
- Trigger for action towards consisted supply of commodities for prevention, screening of STIs (rapid duo kits in ANC), and treatment.
- Integration of routine screening for STIs in HIV clinics and different hospital departments.

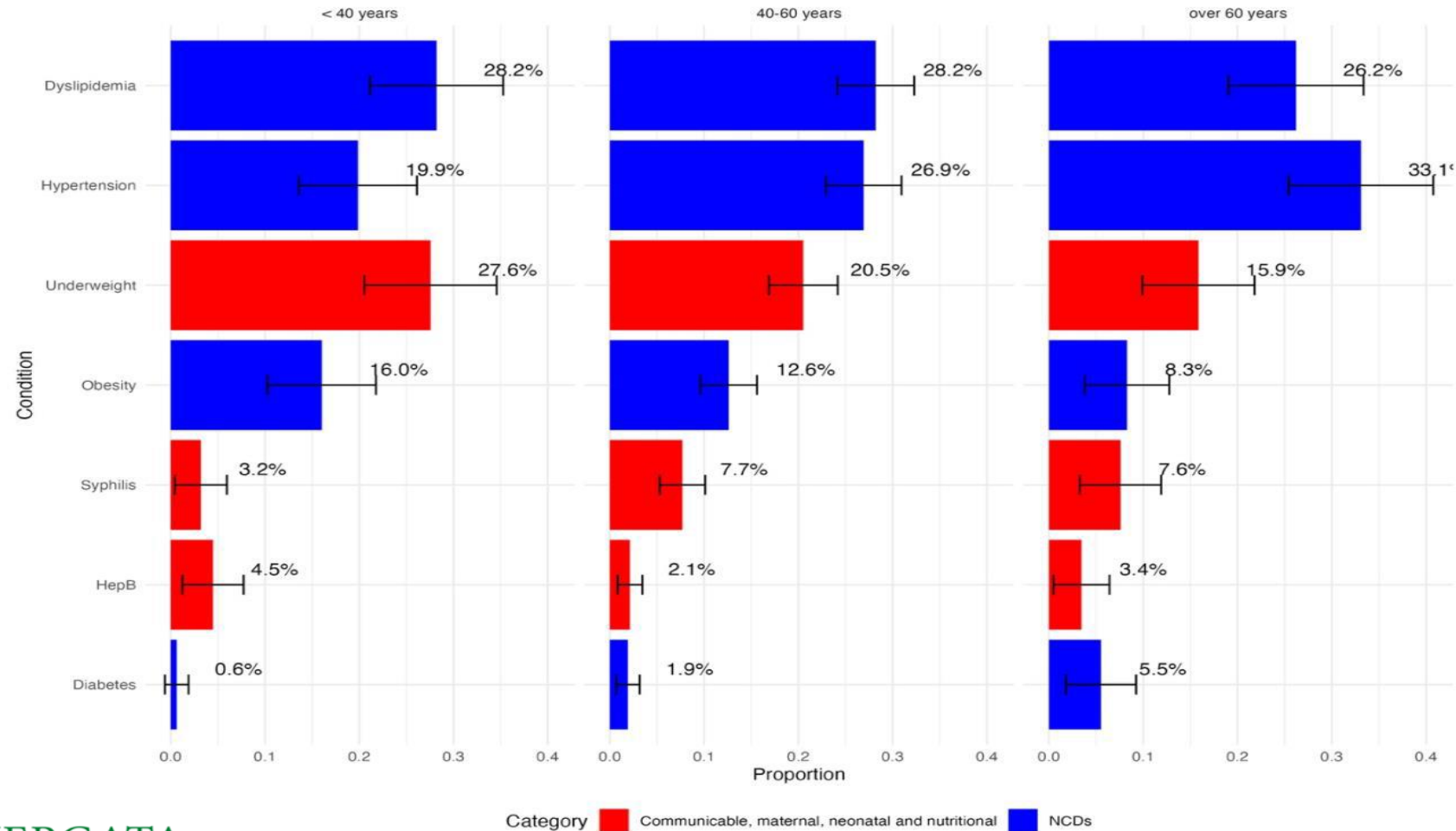
RESULTS: PREVALENCE OF COMORBID CONDITIONS.

HCP OPINION ON SYPHILIS

- Unsafe sex practices and lack of screening were identified as the causes of high rates of syphilis in the few CCCs where there were notable cases.
- A CO at Theera HC attributed the high prevalence rate of syphilis in their facility to unsafe sex practices. Although they provide condoms to their patients, sometimes the condoms are out-of-stock...
- A CO at Miathene SCH cited the lack of screening for syphilis in the CCC as the cause of the high rate of syphilis since cases are not identified and treated early.
-A mentor mother at Theera HC thought that the detected syphilis could be latent.... “We noticed that people above the age of 50 years were the ones who had syphilis. It was baffling since they were not active sexually. Maybe they were infected a long ago but they remained undetected since they were not tested.”



RESULTS: AGE-RELATED PREVALENCE OF COMORBID CONDITIONS IN HIV-POSITIVE PATIENTS



RESULTS: AGE RELATED PREVALENCE

- Offered evidence based data which can be mirrored in general population, on increased prevalence of NCDs among elderly patients living with HIV.(DM/HTN)
- Focus on age appropriate, and needs based healthcare services among different cohorts of patients on care.
- Problem of obesity was shown to be more prevalent among younger population.
- Need for further studies about association of syphilis and HIV among patients on care for long.
- Emphasis on importance of routine monitoring of patients for comorbidities (Resources? HR?)
- Role of community strategy approach in creating awareness about comorbidities should be tailored to align with study findings.

IMPORTANCE OF CHAO STUDY

- Provided better understanding on the burden of comorbidities and coinfections among PLHIV in Meru county which provides evidence to support need to prioritize resources as per the needs.
- The findings provide solid evidence that can be used for advocacy towards allocation of resources to health from county budget.
- The findings provide basis for policy review or formulation and development of clinical guidelines.
- Will help in tailoring training programs for both HCP and CHP.
- Will enable focused multi-sectoral and multi-agency engagement through TWGs and development forums.
- Will form basis of further research.

PROPOSED AREAS OF RESEARCH.

- Resistance to newer ARV drugs such as Dolutegravir.
- Barriers affecting male involvement in care and treatment.
- Impact of cervical cancer screening intervention among PLHIV and associated barriers to treatment.
- Prevalence of multi drug resistance TB among HIV positive patients.

IMPORTANCE OF FUTURE COLLABORATION

- Collaboration between funding agencies, research institutions and implementing partners will ensure continuous improvement in quality of services offered to patients.

Donor funding:

- Will support development of sustainable models of promotive, preventive and curative services, through promotion of research and innovation in health.
- Funding from institutions such as Global fund and Italian cooperation will enable continuous research in key/thematic areas of healthcare programs hence contributing to global pool of knowledge about health issues affecting the country.
- Create platform for multi agency collaboration towards improving indicators of health.

Research institution:

- Will offer skills and knowledge transfer through capacity building, mentorship and exchange programs.
- Collaboration with implementing partners will help identify gaps in patient care and give technical support towards service improvement.

NB: During CHAO study, we received a request from director of medical services, Meru county, we consider an exchange program between university of Rome Tor Vergata and Department of health to promote research skills among HCP.

IMPORTANCE OF FUTURE COLLABORATION.

Local implementing partners and public health institutions:

- i. Identify innovative interventions that can be improved through research and technical support. Their knowledge in local problems and challenges can provide invaluable information to research institutions and donors to help in policy formulation, reviews and implementation at global, country and local levels.
- ii. Their teams will benefit enormously from expertise, knowledge and skills acquired through training and mentorships.

NB: An additional request from clinical director at Consolata Hospital Nkubu to Community of San't Egidio and University of Rome Tor Vergata. He urged the institutions to consider joint research paper reviews with HCPs in the facility, especially in areas of NCDs and infectious diseases, so that HCP in the facility can learn how to interpret scientific papers and journals.

COLLABORATIONS

Role of Meru County & Kenyan government;

- i. Identifying priority areas for partnership with donors and research institutions.
- ii. Provide oversight, guidance and framework for collaboration between international agencies, public health institutions and local partners.
- iii. Monitor activities of different partners to avoid duplication of services.
- iv. Create enabling environment for research and innovation at grassroot, regional and national levels.
- v. Infrastructure development.

In return there is;

- Sustainability
- Skilled and motivated workforce.
- Improved quality of life among citizens.

RECOMMENDATIONS TO GLOBAL FUND AND ITALIAN COOPERATION

- Allocate funding to priority research projects in Kenya (NCDs/HIV/TB)
- Support government in lobbying for affordable commodities such as NCD drugs, ARVs, vaccines and equipments (POCs) from pharmaceutical companies and manufacturers.
- Support creation of incubation centers for innovation in health.(Technology for health)
- Funding of implementing partners through grants to enable improvement of healthcare services and bridge the funding gaps by local governments.

PHOTO GALLERY

Director of medical services opening study info dissemination meeting-Oct 2022

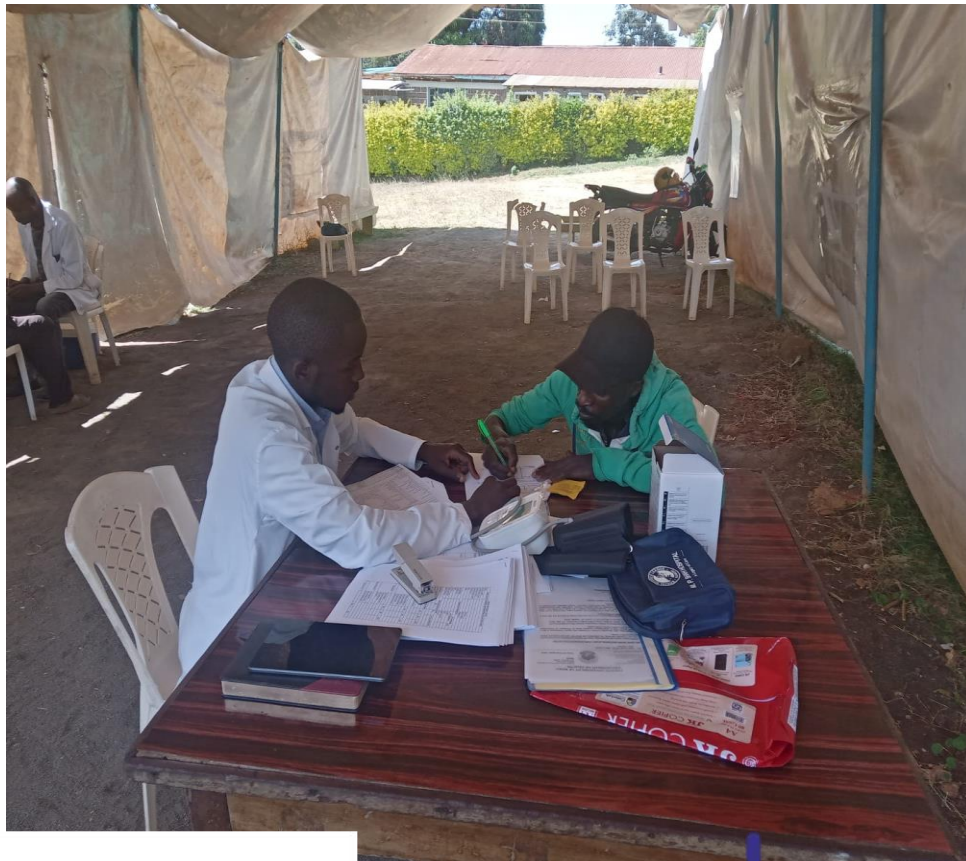


Participants engaging CHAO Study team.



PHOTO GALLERY

Patient signing consent forms



HCP interaction with patients

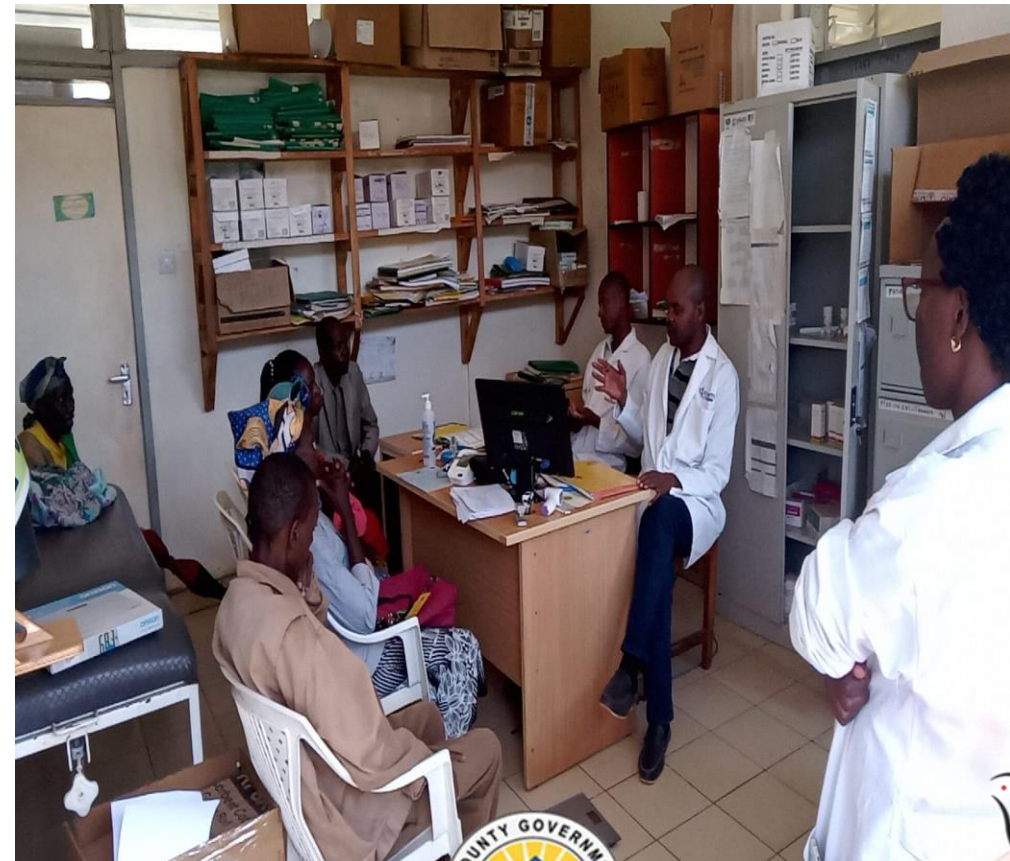


PHOTO GALLERY

Result dissemination meeting-December 2023

Meeting with Director of special programs, NCD program coordinator and Clinical Services Coordinator during result dissemination meeting.



APPRECIATION

Our donor

- Italian Cooperation

Study/Technical Partners

- University of Rome Tor Vergata
- Community of Sant' Egidio DREAM Program
- Department of health, County Government of Meru.
- NTLP
- NASCOP-SIRI department

Stakeholders and Implementing partners

- Community of PLHIV
- Health care providers
- Community Health providers and Volunteers
- DREAM Kenya Trust staff
- Catholic Diocese of Meru, Department of Health and affiliated Health Facilities and staff.
- MOH staff, County Government of Meru.

Regulating bodies.

- AMREF ESRC
- NACOSTI
- Office of the Director of Medical Services, County Government of Meru.





Asante.

Thank you.