
Experiences of The Ethiopian Universities Research Centers' Network (EURCN)

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Regional Consultation of Think Tanks on
Implementation of SDGs for better Health
Outcomes in East Africa
Imperial Royal Hotel, Kampala, Uganda
13-14 October 2016



HDSS Network in Ethiopia

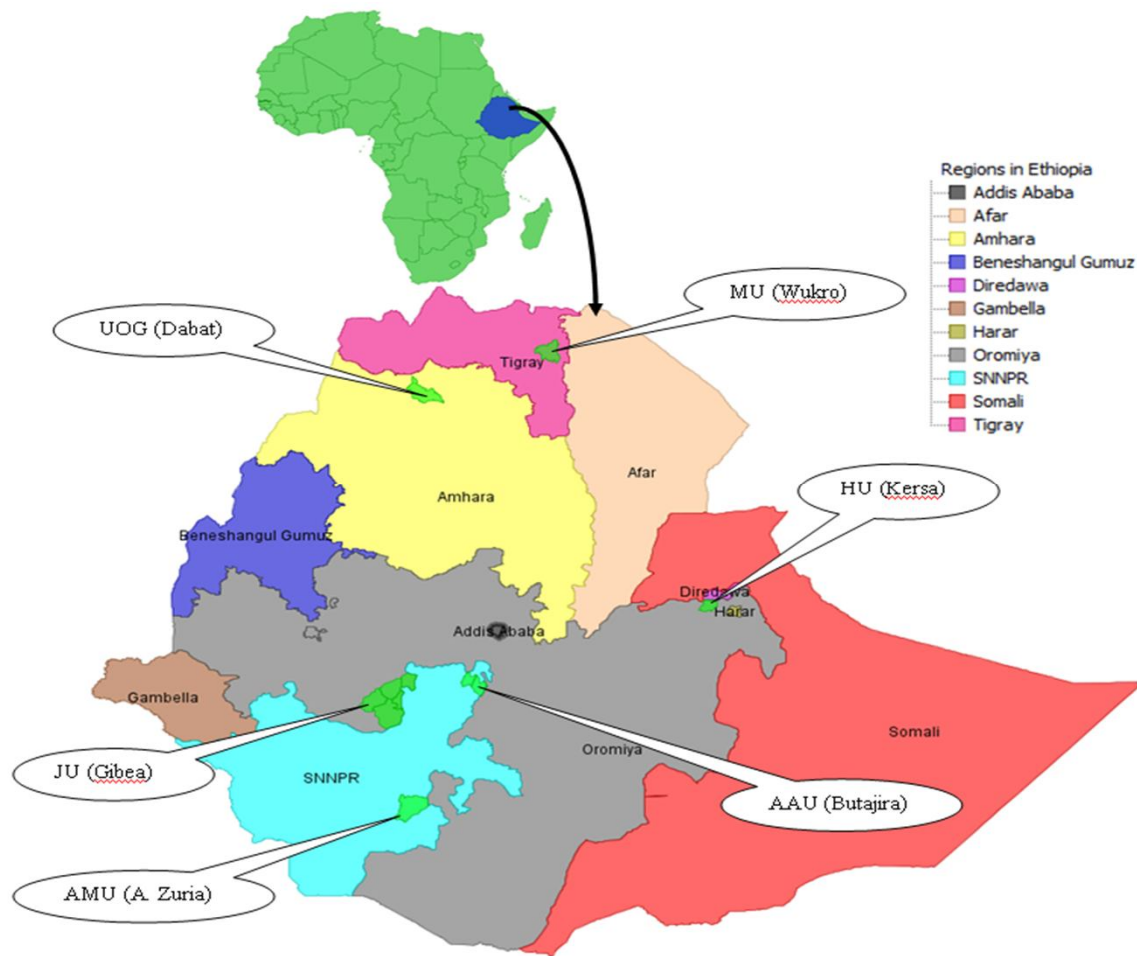
- The idea of Networking of HDSS sites was initiated by Universities Research Centers.
- Four Universities (AAU, JU, HU, UoG) funded by EPHA/CDC on the AIDS mortality surveillance project since 2007
- ***“Ethiopian Universities Research Centers Network (EURCN)” Established in 2007***
- Chair, vice chair and secretary were assigned
- Mekelle and Arba Minch joined the Network in 2009



Members of the Network in Ethiopia

1. Butajira Rural Health Program (1987), AAU
 2. Dabat Research Center (1996), UoG
 3. Gilgel Gibe Field Research Center (2005), JU
 4. Kersa HDSS (2007) & Harar Urban HDSS (2011), HU
 5. Kililte Awlalo Rural Health Program (2009), MU
 6. Arba Minch Zuria Rural Health Program (2009), AU
- Addis Ababa Mortality Surveillance Program is also a member, It is hosted by CHS/AAU





Site	Female	Male	Total
Butajira	38,169	39,393	77,562
Dabat	34,685	33,820	68,505
Gilgel Gibe	32,619	31,447	64,066
Kersa	64,190	66,010	130,200
Kilte Awlaelo	32,575	30,928	63,503
Arba Minch	36,346	36,576	72,922
Total	238,584	237,174	476,758

Location of University based research centers in Ethiopia

All the sites are full members of the INDEPTH Network

Why Networking

- Opportunities for learning and sharing knowledge, skills and mentorship to each other.
- Standardizing HDSS procedures & tools and pool data for joint analysis, reporting and sharing
- Can serve as a platform for universities and stakeholders to undertake collaborative & multi-center studies
- Increase visibility for funding projects

Vision and Mission

Vision: To see evidence based decision making practices in health and development sectors in Ethiopia

Mission: Provision & promotion of the use of valuable information for evidence based decision making, policy formulation, program design, evaluation and execution in public health practices



General Objective

Generate longitudinal data to promote on the use of strategic information for evidence based decision making and coordination of activities among university based surveillance and research centers.



Specific Objectives

- Support graduate level trainees to conduct research in the sites and use existing data
- Provide technical support to network members and new research centers
- Strengthen HDSS centers' capacity to generate and disseminate information on major vital events and population dynamics
- Support member centers to undertake different add on epidemiologic studies at community level
- Develop data warehouse and avail for local and international users



Network Activities (1)

- 👍 Regular quarterly meetings
- 👍 Joint proposal development
- 👍 Initiated Mekelle & Arba Minch universities' research centers, Bahirdar and other University are also coming
- 👍 Standardize tools, methods & procedures for HDSS and VA activities



Network Activities (2)

- 👍 Capacity building & skill trainings for members – longitudinal data analysis using STATA, GIS, etc.
- 👍 Created learning and experience sharing forum between universities
- 👍 In country and African sites (Ghana, SA) team experience sharing visits



Experience Sharing visits to Kintampo, Navrongo, and Agincourt Research Center in Ghana and SA



Network Activities (3)

- 👍 Implemented longitudinal database management system in all member centers – HRS2
- Now we are working to move to OpenHDS
 - OpenHDS and legacy data migration training



Network Activities (4)

- 👍 A number of joint data analysis, with pooled data were conducted annually, reports produced and shared to stakeholders



- 👍 Data sharing & standardization documents developed

Opportunities

- The public Universities hosting the HDSS centers are paying salaries of the field staffs and basic costs to run the system
- The FMOH is interested to start childhood morbidity surveillance using the HDSS platform
- Other partners are also interested to have add-on projects on mental health, malaria, nutrition and MCH.
- The recently established VERA wanted to validate some of the tools using the HDSS platform



Opportunities

- There is continuous development of the human resource for the HDSS community
- Universities consider these centers as both field epidemiologic laboratories and community service centers
- They are ideal platforms for conducting RCT, vaccine, drug and diagnostic procedures trials

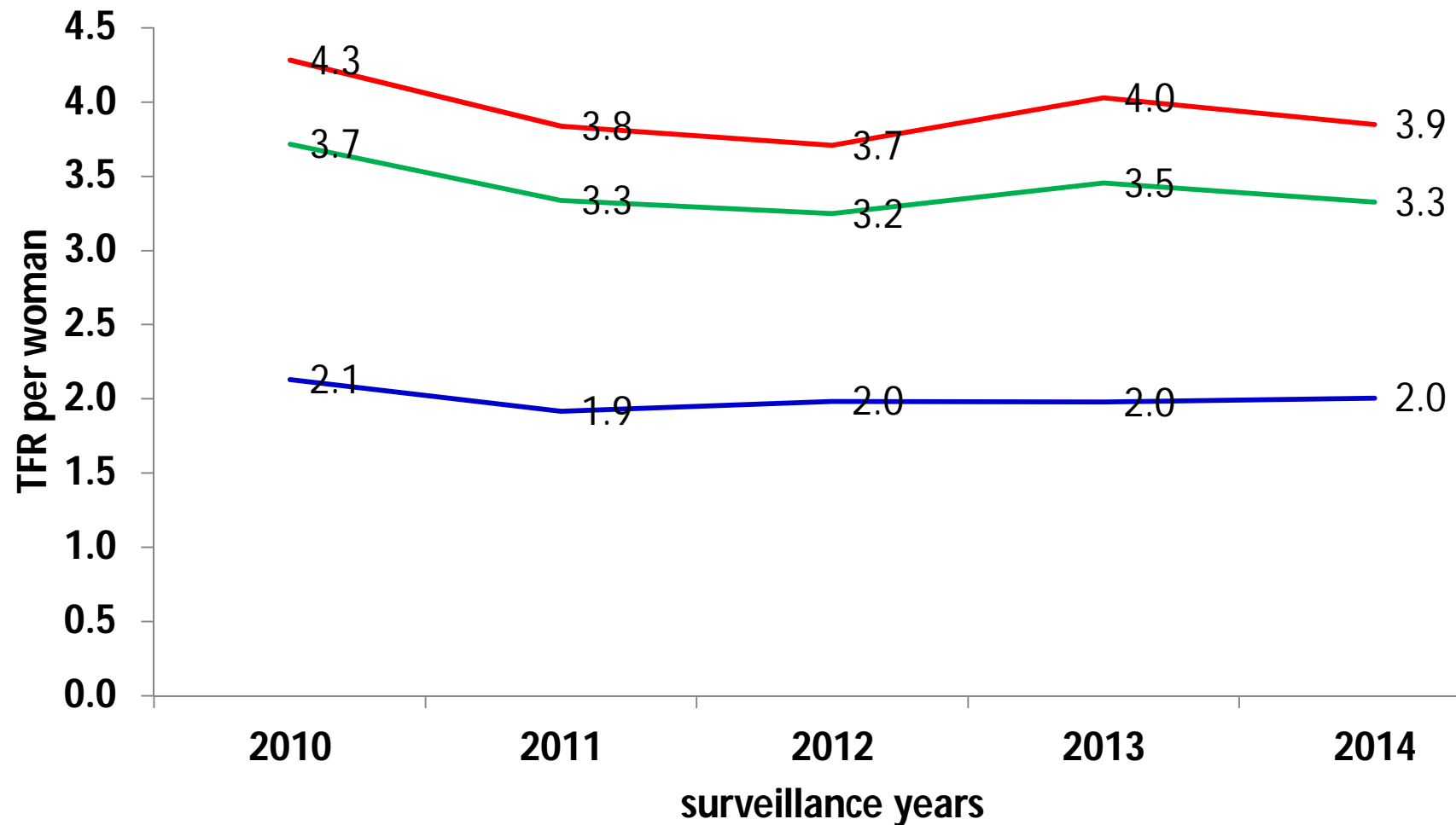
Some findings from pooled data

Fertility trends

surveillance year	CBR	TFR	GFR	GRR
2010	28.2	3.7	120.0	1.80
2011	25.4	3.3	105.8	1.64
2012	25.2	3.2	103.9	1.58
2013	26.9	3.5	109.4	1.69
2014	25.9	3.3	104.2	1.61

EURCN

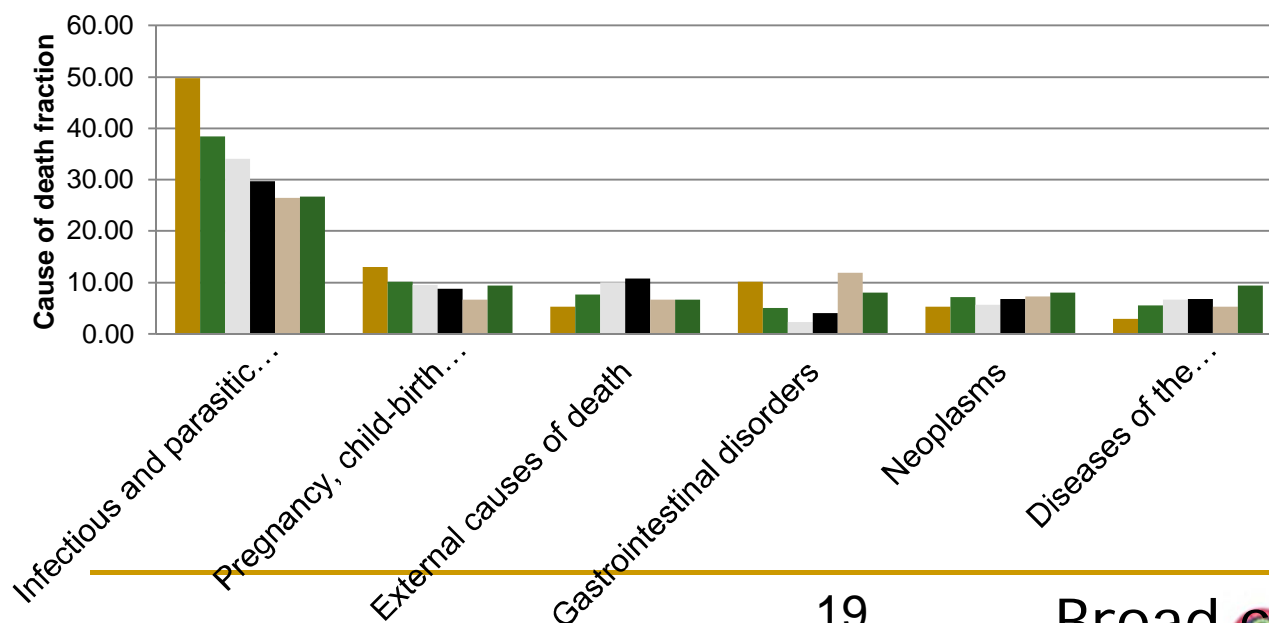
Urban-rural trends of fertility



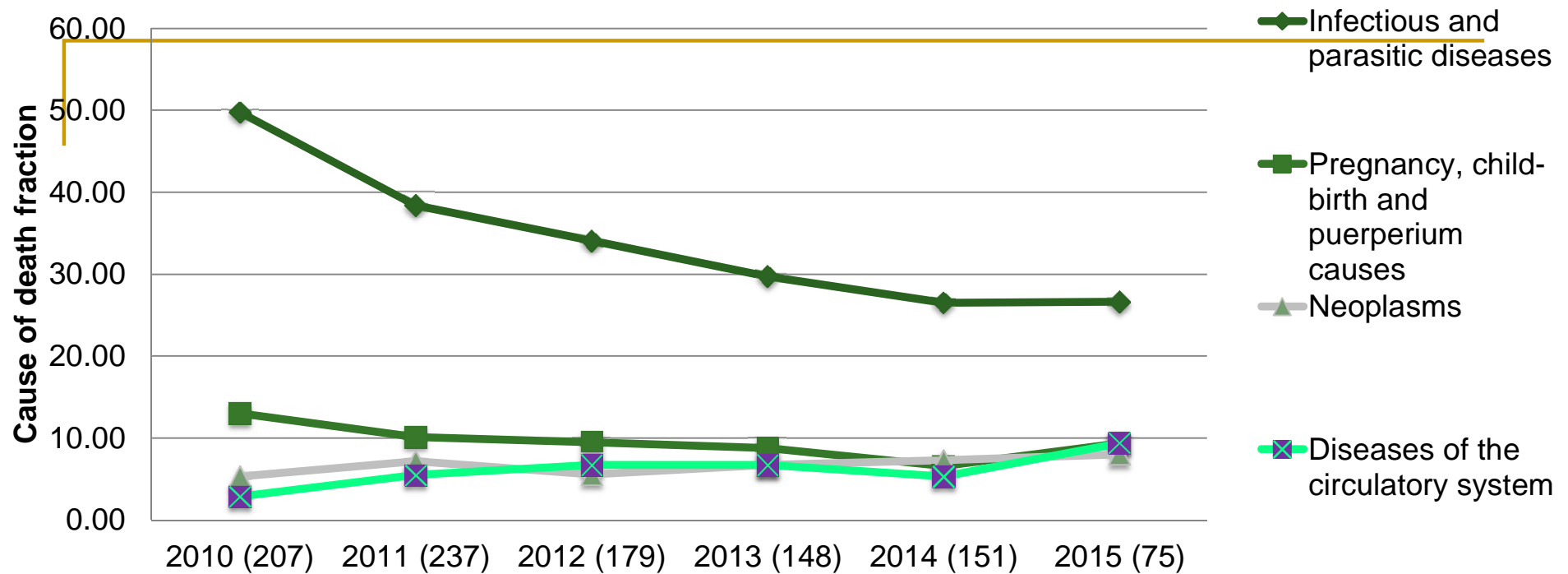
— urban — rural — total



Broad causes of death of women 15-49	2010 (207)	2011 (237)	2012 (179)	2013 (148)	2014 (151)	2015 (75)	Total (997)
Infectious and parasitic diseases	49.76	38.40	34.08	29.73	26.49	26.67	36.01
Pregnancy, child-birth and puerperium causes	13.04	10.13	9.50	8.78	6.62	9.33	9.83
External causes of death	5.31	7.59	10.06	10.81	6.62	6.67	7.82
Gastrointestinal disorders	10.14	5.06	2.23	4.05	11.92	8.00	6.72
Neoplasms	5.31	7.17	5.59	6.76	7.28	8.00	6.52
Diseases of the circulatory system	2.90	5.49	6.70	6.76	5.30	9.33	5.62
Mental and nervous system disorders	0.97	5.91	2.79	4.05	4.64	2.67	3.61
Renal disorders	2.42	1.69	2.79	1.35	5.96	5.33	2.91
Nutritional and endocrine disorders	0.00	1.27	2.23	4.05	2.65	2.67	1.91
Respiratory disorders	0.00	0.42	0.56	0.68	1.32	1.33	0.60
Perinatal causes of death	0.00	0.00	0.56	0.00	0.00	0.00	0.10
Undetermined	7.25	11.39	13.41	15.54	10.60	13.33	11.53
Unspecified causes of death	2.90	5.49	9.50	7.43	10.60	6.67	6.82



Women
15-49
Years of
Age



- Fast decreasing pattern: Infectious and parasitic diseases
- Slow decreasing pattern: Pregnancy, child-birth and puerperium causes
- Increasing pattern: Neoplasm and diseases of the circulatory system

Pattern of major broad causes of death for women age 15-49

	2010 (n=207)	2011 (n=237)	2012 (n=179)	2013 (n=148)	2014 (n=151)	2015 (n=75)	Total (n=997)
Specific causes of death of women 15-49							
Tuberculosis	14.01	13.92	12.85	9.46	7.28	12.00	11.94
HIV/AIDS	12.56	4.64	5.03	9.46	3.97	2.67	6.82
Malaria	10.14	6.75	3.91	3.38	5.30	1.33	5.82
Intestinal infectious diseases	4.35	5.49	7.26	4.05	6.62	5.33	5.52
Postpartum hemorrhage	5.31	3.80	4.47	6.76	2.65	2.67	4.41
Chronic liver disease	5.31	0.84	2.23	2.70	9.27	6.67	4.01
Congestive heart failure	0.48	3.38	3.35	4.73	2.65	2.67	2.81
Renal failure	1.93	1.69	2.79	1.35	5.96	5.33	2.81
Epilepsy	0.97	5.49	2.79	0.68	1.99	1.33	2.51
Acute lower respiratory infections	3.38	3.38	1.68	2.03	1.32	1.33	2.41
Malignant neoplasm of breast	2.42	2.53	2.23	1.35	3.31	2.67	2.41
Gastric and duodenal ulcer	3.38	3.38	0.00	1.35	1.99	1.33	2.11
Meningitis	3.38	1.27	2.79	0.00	0.66	4.00	1.91
Assault	0.97	1.69	1.68	2.70	1.99	0.00	1.60
Intentional self-harm	0.48	0.84	2.23	4.05	1.32	1.33	1.60
Puerperal sepsis	2.90	1.69	1.12	0.68	1.32	0.00	1.50
Hypertensive disorders of pregnancy	0.48	1.69	0.00	0.00	1.32	6.67	1.20
Malignant neoplasm of cervix	0.97	2.11	0.00	1.35	1.99	0.00	1.20
Diabetes mellitus	0.00	0.42	1.12	2.70	1.99	0.00	1.00
Accidental drowning and submersion	0.00	0.84	2.23	0.68	0.00	2.67	0.90

Top 20 specific causes of death of Women 15-49

The way forward (1)

- ✎ We have to closely work with the FMOH and its stakeholders on nationally priority research agendas
- ✎ Enhance the use of HDSS centers and the generated data for capacity building (Masters, PhD, Post Docs)
- ✎ Encourage & support the establishment of more HDSS centers in Ethiopia to get better representative indicators at national level

The way forward (2)

- ✎ Work for the implementation of mobile data collection system across the centers
- ✎ Create HDSS data warehouse for public access and use
- ✎ Support the national VERA with the available critical and experienced staff in the centers
- ✎ Expansion of existing sites in terms of content and geographic coverage
- ✎ Participate in multi-country studies

The way forward (3)

- 👉 Engage centers for multi-center studies that include clinical and community trials
- 👉 Surveillance and add on modules on:
 - 👉 Morbidity surveillance
 - 👉 Nutrition surveillance
 - 👉 Maternal, newborn and child health

Acknowledgment

- The communities in the different sites
- The Universities
- CDC and EPHA for technical and financial support
- INDEPTH Network for capacity building support
- ACHEST



Thank you so much!
