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## Adolescent Fertility Analysis Workshop Dabat HDSS

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Accra, Ghana

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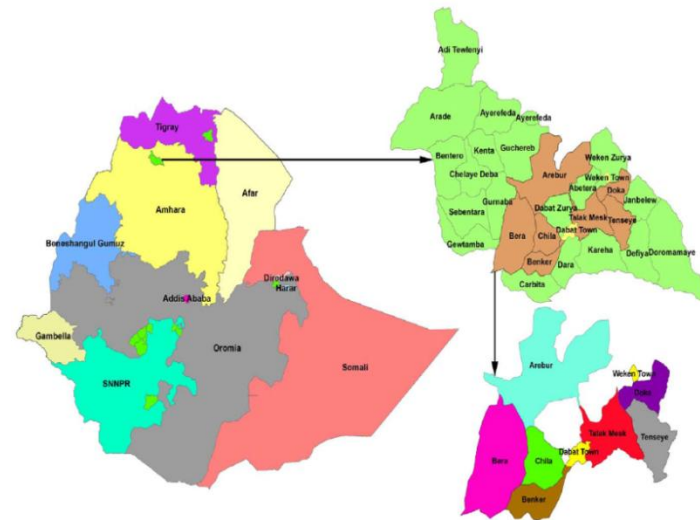
# Presentation outline

- Mapp and population of Dabat HDSS
- Required Data for Analysis
- Publications
- Most Interesting Results
- Multicenter under going Researches
- Research Focus Areas
- Ideas for Analysis



# Mapp and population

- Start : 1996 with 9 villages ; 2008 with 10 villages; 2014 with 13 villages
- Population: 68,614
- Distance to Gondar: 75 kms
- livelihood of residents mainly subsistence farming
- Fertility : 3.8 (2009 to 2012)
- IMR 60.0/1000 live births in 2012
- ASFR among adolescents of age 15-19 years decreased from 81.6 per 1,000 in 2009 to 72.3 per 1,000 in 2012
- The out-migration rates were the highest among people aged 20-24 years (96.3 per 1000 person years) followed by 15-19 years (77.2 per 1000 person years)
- Each year, external out-migration rates were higher among females



# Required Data for Analysis

## Required and optional data for Fertility Analysis

input			
SEJOUR	IndividualId	required	✓
	LocationId	required	✓
	HouseholdId	required	✓
	Compound	required	x
	DoB	required	✓
	Sex	required	✓
	Date of Entry	required	✓
	Type of Entry	required	✓
	Date of Exit	required	✓
	Type of Exit	required	✓
	MotherID	required	?
	Marital status at Entry (for women)	optional	✓
Parity at Entry (for women)	optional	✓	
BIRTH	IndividualId		✓
	Date of Birth		✓
	Rank	optional	✓

MARRIAGE	IndividualId		✓
	Marriage Date	optional	✓
	MarriageType	optional	✓
	other usefull information	optional	✓
DIVORCE	IndividualId		✓
	DivorceDate	optional	✓
	DivorceType	optional	
	other usefull information	optional	
WIDOW	Individual Id		✓
	WidowDate	optional	✓
	WidowType	optional	
	other usefull information	optional	
OTHER	IndividualId		✓
	level of education	optional	2014
	economical level of HH	optional	2014
	occupation of Head of HH	optional	2014
	education of Head ofHH	optional	2014
	living arrangement	optional	?
	other usefull information	optional	migration

# Special issue Publications

- Kebede Y, Andarge G, Melesse T, Azmeraw T, Tadesse T, Tefera Y, Gebeyehu A, Awoke T, Alemu K, Yifru S, Kassu A, Abula T, Admassu M, Alemu S, Meseret S, Negesse D, Degu G, Mekonnen S, Megabiaw B, Zemene W, Getachew A, Wassie B, Amsalu S, Wubshet M, Yitayal M, Tessema F, Lakew Y, Fekadu Y, Dejene T, Gebeye E , Birku M. Population Dynamics In Dabat Health and Demographic Surveillance System Sites, Dabat District, Northwest Ethiopia: A Four year Surveillance Report (2009 To 2012). Ethiop. J. Health Biomed Sci., 2015. Vol.7, Special Issue
- Tadesse T, Getachew A, Admassu M, Kebede Y, Awoke T, Melesse T, Amsalu S, Alemu S, Andargie G, Wassie B, Tefera Y, Yifru S, Alemu K, G/Selassie S, Meseret S. Demographic and Health Survey at Dabat District in Northwest Ethiopia: Report of the 2008 baseline survey. Ethiopian Journal of Health and Biomedical Sciences. Sept. 2011; 4(Special issue)
- Fantahun M, Kumbi S, Degu G, Kebede Y, Admassu M, Haile W, Hailu S. Dabat Rural Health Project, Northwest Ethiopia, Report of the baseline survey. EJHD. 2001; 15(special issue)



# Some of the Recent Publications



1. Tadesse T, Demissie M, Berhane Y, Kebede Y, Abebe M (2011). Two-Thirds of Smear Positive Tuberculosis Cases in the Community were Undiagnosed in Northwest Ethiopia: Population Based Cross Sectional Study. *Plos ONE*. 6(12)
2. Tadesse T, Demissie M, Berhane Y, Kebede Y, Abebe M (2013) The Clustering of Smear-Positive Tuberculosis in Dabat, Ethiopia: A Population Based Cross Sectional Study. *PLoS ONE* 8(5)
3. Tadesse T, Demissie M, Berhane Y, Kebede Y and Abebe M. Long distance travelling and financial burdens discourage tuberculosis DOTs treatment initiation and compliance in Ethiopia: a qualitative study. *BMC Public Health* 2013, 13
4. Tadesse T, Demissie M, Berhane Y, Kebede Y, Abebe M. Incidence of smear-positive tuberculosis in Dabat, northern Ethiopia. *INT J TUBERC LUNG DIS* . 2013; 17(5):630–635
5. Andargie G, Berhane Y, Worku A, Kebede Y. Predictors of perinatal mortality in rural population of Northwest Ethiopia: a prospective longitudinal study. *BMC Public Health*. 2013; 13:168
6. Okwaraji Y, Cousens S, Berhane Y, Mulholland K, Edmond K. Effect of Geographical Access to Health Facilities on Child Mortality in Rural Ethiopia: A Community Based Cross Sectional Study. *PLoS ONE*. March 2012; 7(Issue 3)
7. Assefa G, Megabiaw B, and Awoke T. Birth interval and its predictors among married women in Dabat District, Northwest Ethiopia: A retrospective follow up study. *Afr J Reprod Health* 2013; 17[2]: 39-45).
8. Gebeyehu A, Worku A, and Fantahun M. Factors affecting utilization of skilled maternal care in Northwest Ethiopia: a multilevel analysis. *BMC International Health and Human Rights* 2013, 13:20
9. Okwaraji Y, Mulholland K, Schellenberg JRMA, Andargie G, Admassu M and Edmond KM. The association between travel time to health facilities and childhood vaccine coverage in rural Ethiopia. A community based cross sectional study. *BMC Public Health* 2012, 12:476.
10. Birhanu ZM, Biks GA, Ayele TA, Tessema GA & Koye DN. Determinants of skilled attendance for delivery in Northwest Ethiopia: a community based nested case control study. *BMC Public Health* 2013, 13:130.
11. Andargie G, Berhane Y, Worku A and Kebede Y. Why is Perinatal Mortality Higher among women Delivered at Health Facility in Rural Northwest Ethiopia? A Qualitative Study. *British Journal of Medicine & Medical Research* 4(29), 2014.
12. Alemu K, Worku A, Berhane Y, Kumie A. Men Traveling Away from Home Are More Likely to Bring Malaria into High Altitude Villages, Northwest Ethiopia. *PLoS ONE* 9(4) (2014) : e95341. doi:10.1371/journal.pone.0095341.
13. Alemu K, Worku A, Berhane Y, Kumie A. . Spatiotemporal clusters of malaria cases at village level, northwest Ethiopia. *Malaria Journal* 2014 13:223.
14. Worku AG, Yalew AW, Mesganaw , Afework MF. The Contributions of Maternity Care to Reducing Adverse Pregnancy Outcomes: A Cohort Study in Dabat District, Northwest Ethiopia. *Article Maternal and Child Health Journal* August 2014, Volume 18, Issue 6, pp 1336-1344
15. Biks GA , Tariku A, Tessema GA. Effects of antenatal care and institutional delivery on exclusive breastfeeding practice in northwest Ethiopia: a nested case control study. *International Breastfeeding Journal* (2015) 10:30 DOI 10.1186/s13006-015-0055-4
16. Okwaraji YB, Webb EL and Edmond KM. Barriers in physical access to maternal health services in rural Ethiopia. *BMC Health Services Research* (2015) 15:493 DOI 10.1186/s12913-015-1161-0





# Multicenter Research in the HDSS

**The Ethiopian PCV-10 Study [Eth-PCV]** A multi-site observational epidemiology study to assess potential risks that may be associated with misuse of a two-dose vial of 10-valent Pneumococcal Conjugate Vaccine (Synflorix) in Ethiopia. (Oct 2011 to Aug 2013)





# Multicenter under going Research

Randomized community trial on Enhanced community case management to increase access to pneumonia treatment in Ethiopia in August 2015 to August 2018.





# Interesting Results

- Decline ASFR among adolescents of age 15-19 years decreased (Kebede Y.2015)
- The out-migration rates were the highest among people aged 20-24 years followed by 15-19 years (Kebede Y.2015)
- External out-migration rates were higher among females (Kebede Y.2015)
- The mean age at first marriage was  $16 \pm 2.8$  years and 25.9% of the women married at 14 years or younger and 77.3% were married before they reach 18 years of age 2008 (Takele T. 2011).
- Birth preparedness and its complication readiness and factors associated contribution of correlations, such as women's age, women's and husband's educational status, occupation, residence, annual income and other obstetric factors like ANC, parity (Assefa G. Dec. 22, 2010)

# Focus Research Areas

- Population and Socio-demographic issues,
- Contributors of Early Neonatal Mortality
- Leveling cause of deaths,
- Maternal and child health Nutrition,
- Disability, HIV & TB and,
- Integrating morbidity with mortality data using real time health facility data

# Ideas for Analysis?

- Trends in fertility and contribution to the fertility decline
- Rural-urban circular migration as determinant of premarital fertility



Thank you

