

# Nouna Health and Demographic Surveillance System

## BURKINA FASO

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**INDEPTH Adolescents Fertility  
workshop**

**02-06 May 2016**

**Accra, Ghana**

**Centre de Recherche en Santé de Nouna, Burkina Faso**

**<http://www.crsn-nouna.bf>**

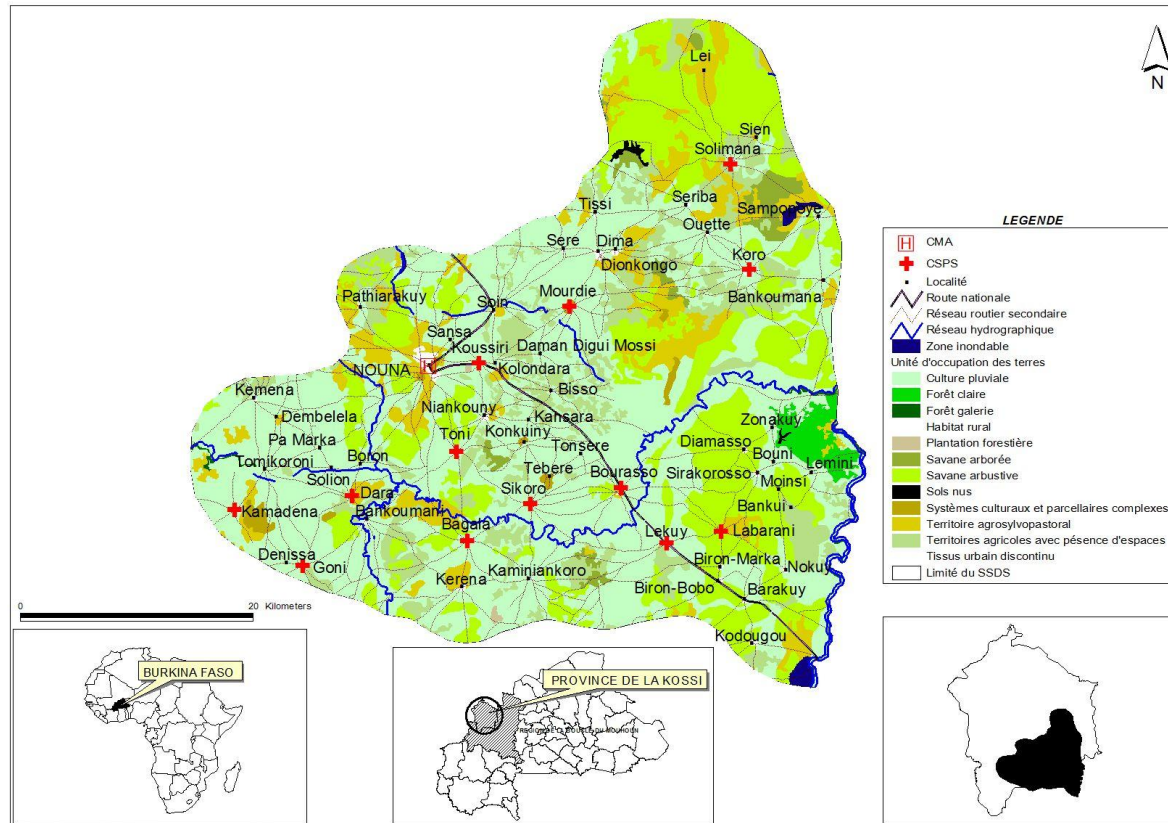


# Introduction

- Nouna Health and Demographic Surveillance System (N-HDSS) started in 1992 and is the oldest in Burkina Faso
- It is located in the sub-urban town of Nouna situated at the north-west about 300 km from Ouagadougou, the Capital
- N-HDSS aims to provide evidence based on research results for best implementation of health programs and policies.



# Location and population of Nouna HDSS



**Burkina Faso**

**Nouna district**

**Nouna HDSS**

Burkina Faso  
 Area: 274 000 km<sup>2</sup>  
 Pop. 18 000 000  
 Health Regions: 13  
 Health Districts: 70

Area: 7 464,44 km<sup>2</sup>  
 Pop. : 312 080 inhabitants  
 Hospital of District: 1  
 Primary Health Centres  
 (CSPS): 45

Area: 1 775 km<sup>2</sup>  
 Pop. : 104 674 inhabitants  
 Villages : 58  
 Town: 1

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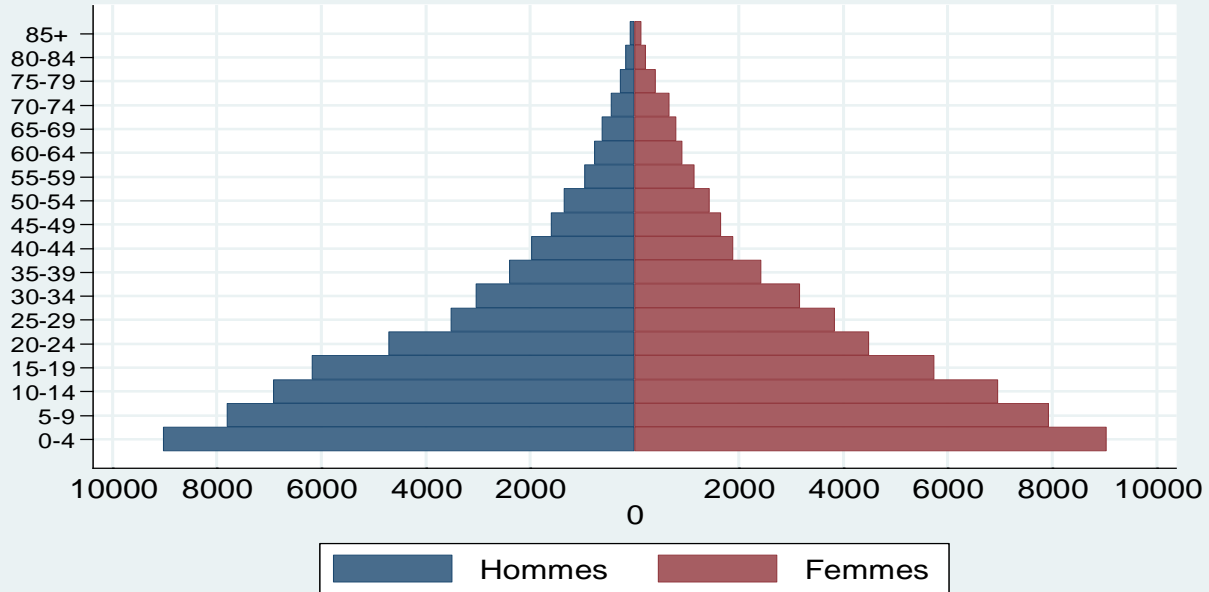
# Some indicators

- Economical activities : agriculture
- Fertility : 5.1 (2014)
- Women 50.5%
- Men 49.5%
- Density : 59
- Crude birth rate: 32,9 ‰(2014), 36,6‰ (2013)
- Total fertility rate: 5.2 per women
- Crude death rate: 7.3 ‰
- Infant mortality rate: 30.6 ‰ ; 77.4 ‰
- Life expectancy: 65



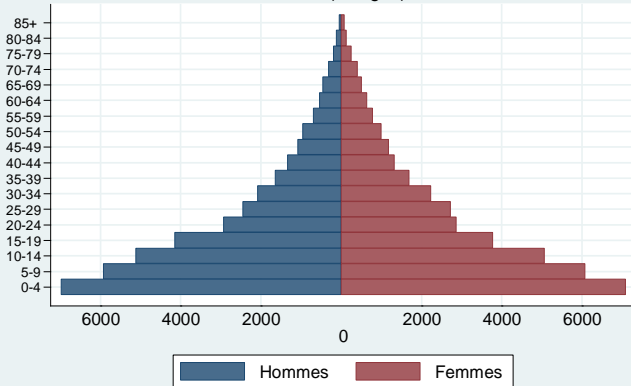
# Population Masculine et Féminine

SSDS-Nouna, 2014



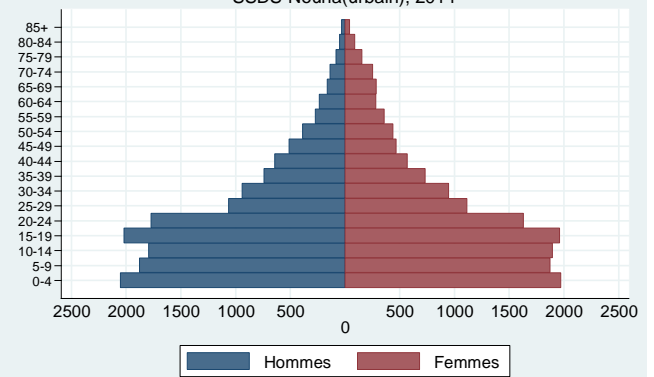
Source: BD-SSDS-CRSN, 2015

## Population Masculine et Féminine SSDS-Rural(Villages), 2014



Source: BD-SSDS-CRSN, 2015

## Population Masculine et Féminine SSDS-Nouna(urbain), 2014



Source: BD-SSDS-CRSN, 2015

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# Availability of data related to fertility

## Required and optional data for Fertility Analysis

SEJOUR	IndividualId	X	✓
	LocationId	X	
	HouseholdId	X	
	Compound	X	
	DoB	X	
	Sex	X	
	Date of Entry	X	
	Type of Entry	X	
	Date of Exit	X	
	Type of Exit	X	
	MotherID	X	

BIRTH	Marital status at Entry (for women)	Incomplete	
	Parity at Entry (for women)	-	
	IndividualId	X	
	Date of Birth	X	
	Rank	X	

MARRIAGE	IndividualId	X
	MarriageDate	X
	MarriageType	X
DIVORCE	IndividualId	X
	DivorceDate	-
	DivorceType	-
WIDOW	IndividualId	X
	WidowDate	-
	WidowType	-
OTHER	IndividualId	X
	level of education	Incomplete, but
	economical level of HH	2005-2011
	occupation of Head of HH	Incomplete
	education of Head of HH	Incomplete



# Recents publications from N-HDSS

- HIV/AIDS-RELATED MORTALITY IN AFRICA AND ASIA: EVIDENCE FROM INDEPTH HEALTH AND DEMOGRAPHIC SURVEILLANCE SYSTEM SITES Haut du formulaire Bas du formulaire
- STREATFIELD, P. Kim et al. HIV/AIDS-related mortality in Africa and Asia: evidence from INDEPTH health and demographic surveillance system sites. **Global Health Action**, [S.I.], v. 7, oct. 2014. ISSN 1654-9880. Available at: <<http://www.globalhealthaction.net/index.php/gha/article/view/25370>>. Date accessed: 28 Jan. 2016. doi:<http://dx.doi.org/10.3402/gha.v7.25370>.
- De Allegri Manuela; **Sauerborn Rainer; Kouyaté Bocar**; Flessa Steffen. [Community health insurance in subSaharan Africa: what operational difficulties hamper its successful development?](#) Tropical medicine & international health : TM & IH 2009;14(5):58696.
- 
- **2 Dugas M, Dubé E, Kouyaté B, Sanou A, Bibeau G. Portrait of a lengthy vaccination trajectory in Burkina Faso: from cultural acceptance of vaccines to actual immunization.** BMC Int Health Hum Rights. 2009 Oct 14;9Suppl 1:S9.
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- **3 Sanou A, Simboro S, Kouyaté B, Dugas M, Graham J, Bibeau G. Assessment of factors associated with complete immunization coverage in children aged 12-23 months: a cross-sectional study in Nouna district, Burkina Faso.** BMC Int Health Hum Rights. 2009 Oct 14; 9Suppl 1:S10.
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- **4 Böhler T, Mrosek V, Müller K, Schnitzler P, Hartmann M, Ouedraogo T, Coulibaly B, Sié A, Bartonova V, Tebit DM, Kräusslich HG. Cross-Clade Recognition of HIV-1 CR24 by CD4 T Cells in HIV-1 Infected Individuals in Burkina Faso and Germany.** Open AIDS J. 2009 Jan 23; 3:47.
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- **5 Coulibaly B, Zoungrana A, Mockenhaupt FP, Schirmer RH, Klose C, Mansmann U, Meissner PE, Müller O. Strong gametocytocidal effect of methylene blue based combination therapy against falciparum malaria: a randomised controlled trial.** PLoS One. 2009;4(5):e5318. Epub 2009 May 5.
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# Recents publications from N-HDSS

- **6 Hofmann J, De Allegri M, Sarker M, Sanon M, Böhler T. Breast milk as the "water that supports and preserves life" sociocultural constructions of breastfeeding and their implications for the prevention of mother to child transmission of HIV in subSaharan Africa.** Health Policy. 2009 Mar;89(3):3228. Epub 2008 Aug 3.
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- **7 Müller O, Sié A, Meissner P, Schirmer RH, Kouyaté B.** [Artemisinin resistance on the ThaiCambodian border](#) Lancet. 2009 Oct 24;374(9699):1419.
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- **8 Müller O, Yé M, Louis VR, Sié A.** [Malaria in subSaharan Africa](#). Lancet. 2009 Jan 10;373(9658):122.
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- **9 [The effect of communitybased health insurance on the utilization of modern health care services: evidence from Burkina Faso.](#)**
- Gnawali DP, Pokhrel S, **Sié A, Sanon M**, De Allegri M, Souares A, Dong H, Sauerborn R.
- Health Policy. 2009 May;90(23):21422. Epub 2008 Nov 25.
- 
- **10 HeribertRamroth, Robert P. Ndugwa, Olaf Müller, YazouméYé, Ali Sié, BocarKouyaté, HeikoBecher. Decreasing childhood mortality and increasing proportion of malaria deaths in rural Burkina Faso.** International Journal of Infectious Diseases
- 
- **11 Karthe D., Traoré I. "Geographic Pattern of Malaria Transmission: a Case Study from Kossi Province, Burkina Faso".** GEOÖKÖ, volume 30, 4364, 2009.





# Recents publications from N-HDSS

- **12 Using community wealth ranking to identify the poor for subsidies: case study of communitybased health insurance in Nouna, Burkina Faso**
- Souares A, **Savadogo G**, Dong H., Parmar D., **Sié A.**, Sauerborn R.
- Health & social Care in the Community (Impact Factor 1.054).
- 
- **13 Household risk factors for clinical malaria in a semiurban area of Burkina Faso: a casecontrol study.**
- Yamamoto S, Louis VR, **Sié A**, Sauerborn R.
- Trans R Soc Trop Med Hyg. 2009 Aug 27. [Epub ahead of print]
- 
- **14 Access to malaria treatment in young children of rural treatment in young children of rural Burkina Faso**
- MaikéTipke, Valérie R Louis, **Maurice Yé**, Manuella De Allegri, Claudia Beiersmann, **Ali Sié**, Olaf Müller and Albrecht Janhn
- Malaria Journal MS : 458873312979649
- 
- **15 Potential anthropogenic and natural breeding sites for Anopheles mosquitoes in rural Burkina Faso identified through remote sensing**
- Dambach<sup>°</sup> P, **Sié A**<sup>1</sup>, Sagnon<sup>2</sup> N, Lacaux<sup>3</sup> JP, Vignolles<sup>4</sup> C, Lafaye<sup>4</sup> M, Sauerborn<sup>°</sup> R.



# Potential Research

- **Topic I & II:**
  - Change in adolescent fertility and overall fertility levels and declines
  - Education and fertility
  
- **But possibility for topic III on a sample < 1/10 of HDSS : the socio economic data is collected on a sample**



# THANKS



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