



# Ouagadougou Health and Demographic Surveillance System

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Roch Modeste MILLOGO

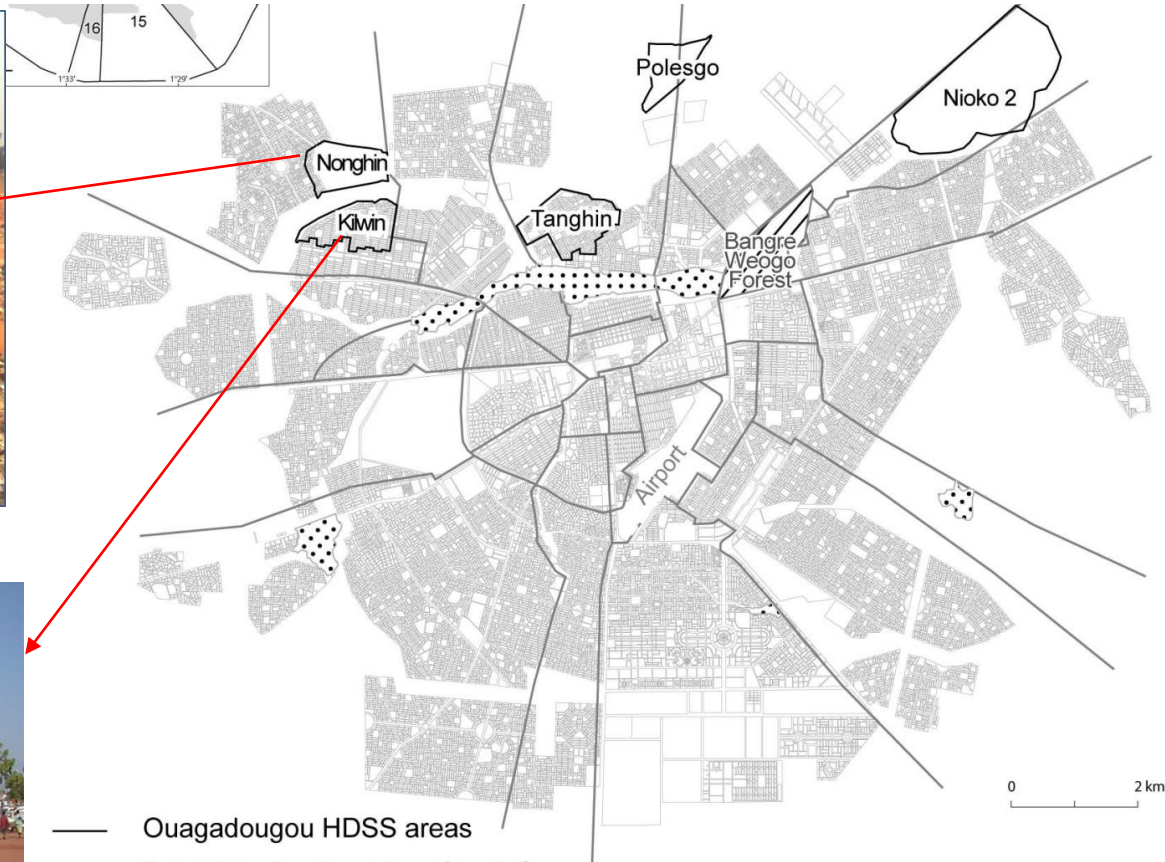
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# What is Ouaga HDSS ?

- Research and interventions platform
- Located in five districts at the north of the city:
  - **Two formal districts** (Kilwin, Tanghin) : There are basics social infrastructures (water, electricity, etc.)
  - **Three informal districts** (Polesgo, Nonghin, Nioko 2): no water, no electricity, no cadastral plan, inhabited mostly by migrants from rural areas.

# Where are the HDSS areas ?



- Ouagadougou HDSS areas
- Administrative boundary (sector)
- Block
- Tanghin Neighborhood
- Dam

Source : Ouagadougou HDSS, ISSP, 2011  
[www.issp.bf/OPO/](http://www.issp.bf/OPO/)



# Why these areas were selected?

- ✚ To target the most vulnerable populations of the city
- ✚ To contrast informal neighborhoods with formal areas, with the aims of understanding the problems of the urban poor, and testing innovative programs that promote the well-being of this population
- ✚ The three informal areas are devoid of formal zoning plans
- ✚ To be able to compare these areas with the rest of the city, two formal neighborhoods located close by have been added
- ✚ The 5 areas belong to two different Sanitary Districts

# About Ouaga HDSS

- ✚ Data is collected on PDAs, tablets, smartphones
- ✚ Database is managed on SQL Server



- ✚ A baseline conducted between October 2008 and March 2009 and we counted about 75000 residents in 18000 households
- ✚ 8 rounds since 2008 (after baseline)
- ✚ In 2014 we followed 89,765 residents in 20,932 households.

# What has been measured ? (Units)

- ✚ Building unit characteristics (Roof, floor, wall, type of toilet)
- ✚ Household (household amenities/possessions, housing conditions, relationships between members, GPS coordinates)
- ✚ Individual (gender, date of birth, ethnic group, religion, marital status ; employment status, education, residents update of residency status)

# What has been measured ? (Events)

- ✚ Pregnancy (outcome of existing pregnancy records, date of delivery, number of babies, stillborn, live-born)
- ✚ Births (date and place of birth, gender, medical attendance at birth, Height, weight, vaccinations, prenatal visits)
- ✚ Vaccination (children under five years old)
- ✚ Unions (Date of cohabitation, date of civil, religious and traditional ceremony, number of spouse(s) for men)
- ✚ Deaths (date of death, place of death, verbal autopsy)
- ✚ In-migration (origin of migration episode, reason for migration episode, previous residence within the Ouaga HDSS)
- ✚ Out-migration (date of out-migration, destination of migration episode, reason for migration episode)



# Data

## Required and optional data for Fertility Analysis

| Required and optional data for Fertility Analysis |                                     |           |                  |
|---|-------------------------------------|-----------|------------------|
|   | input                               |           |                  |
| RESIDENCY FILE                                    | IndividualId                        | required  | ✓                |
|   | LocationId                          | required  | ✓                |
|   | HouseholdId                         | required  | ✓                |
|   | Compound                            | required  | ✓                |
|   | 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                        |           | ✓                |
|   | MarriageDate                        | optional  | ✓                |
|   | MarriageType                        | optional  | ✓                |
|   | other usefull information           | optional  | ✓                |
| DIVORCE   | IndividualId                        |           | ✓                |
|   | DivorceDate                         | optional  | ✓                |
|   | DivorceType                         | optional  | ✓                |
|   | other usefull information           | optional  |                  |
| WIDOW   | IndividualId                        |           | ✓                |
|   | WidowDate                           | optional  | ✓                |
|   | WidowType                           | optional  |                  |
|   | other usefull information           | optional  |                  |
| OTHER   | IndividualId                        |           | ✓                |
|   | level of education                  | optional  | 2011; 2009       |
|   | economical level of HH              | optional  | 2013; 2011; 2009 |
|   | occupation of Head of HH            | optional  | 2011; 2009       |
|   | education of Head ofHH              | optional  | 2011; 2009       |
|   | type of district                    | optional  | ✓                |
|   | living arrangement                  | optional  | ✓                |
| other usefull information                         | optional                            | migration |                  |





# Some recent publications (1/2)

1. Abdramane B. Soura, B. Mberu, P. Elungata, B. Lankoande, R. Millogo, D. Beguy, Y. Compaore, 2015, "Understanding inequities in child vaccination rates among the urban poor: Evidence from Nairobi and Ouagadougou Health and Demographic Surveillance Systems", *Journal of Urban Health*, 92:39-54. DOI: 10.1007/s11524-014-9908-1.
2. Bouba Djourdebbe F, Dos Santos S., Legrand T., Soura A., 2015, « Environmental factors and childhood fever in the areas of the Ouagadougou – Health and Demographic Surveillance System – Burkina Faso », *Journal of Biosocial Science*, vol. 47, n°4, 536-553.  
<http://dx.doi.org/10.1017/S0021932014000479>
3. Bouba Djourdebbe F, Dos Santos S., Legrand T., Soura A., 2015, « Influence des facteurs environnementaux et démographiques dans la co-occurrence de la diarrhée et de la fièvre chez les enfants dans cinq quartiers de Ouagadougou (Burkina Faso) », *Cahiers Québécois de Démographie*, vol. 44, n°4, 35-64.
4. Dos Santos S., Ouedraogo F.C., Soura A. B., 2015, « Water related factors and childhood diarrhea in African informal settlements. A cross-sectional study in Ouagadougou (Burkina Faso)», *Journal of Water and Health*, vol 13, n°2, 562-574.  
<http://dx.doi.org/10.2166/wh.2014.115>
5. Rossier Clémentine, Muindi Kanyiva, Soura Abdramane, Mberu Blessing, Lankoande Bruno, Kabiru Caroline, Millogo Roch (2014), "Maternal health care utilization in Nairobi and Ouagadougou: Evidence from HDSS", *Global Health Action*, 7: 24351.  
DOI:10.3402/gha.v7.24351.

# Some recent publications (2/2)

A collective book of 10 chapters:

Soura A. B., Dos Santos S., Ouédraogo F. C. (dir.), 2015, *Climat et accès aux ressources en eau en zones informelles de Ouagadougou*, Presses Universitaires de Ouagadougou, Ouagadougou, 164 pages.