Context

Maternal and neonatal mortality rates in Burkina Faso are very high: **343 deaths** per **100,000** live births and **27 deaths** per **1,000** live births respectively. These deaths can be explained by, among other reasons, poor communities knowledge of healthy behaviours, barriers in accessing care, and lack of systematic healthcare seeking behavior.

What?

PANDA (Pregnancy and Newborn Diagnostic Assessment) is a e-health system consisting of **an application, the PANDA App,** downloadable on a Tablet or a smartphon and a database, the **Medical Unit**. This system provides quality standardized antenatal visits information, identifies women prone to complications and allows remote supervision.
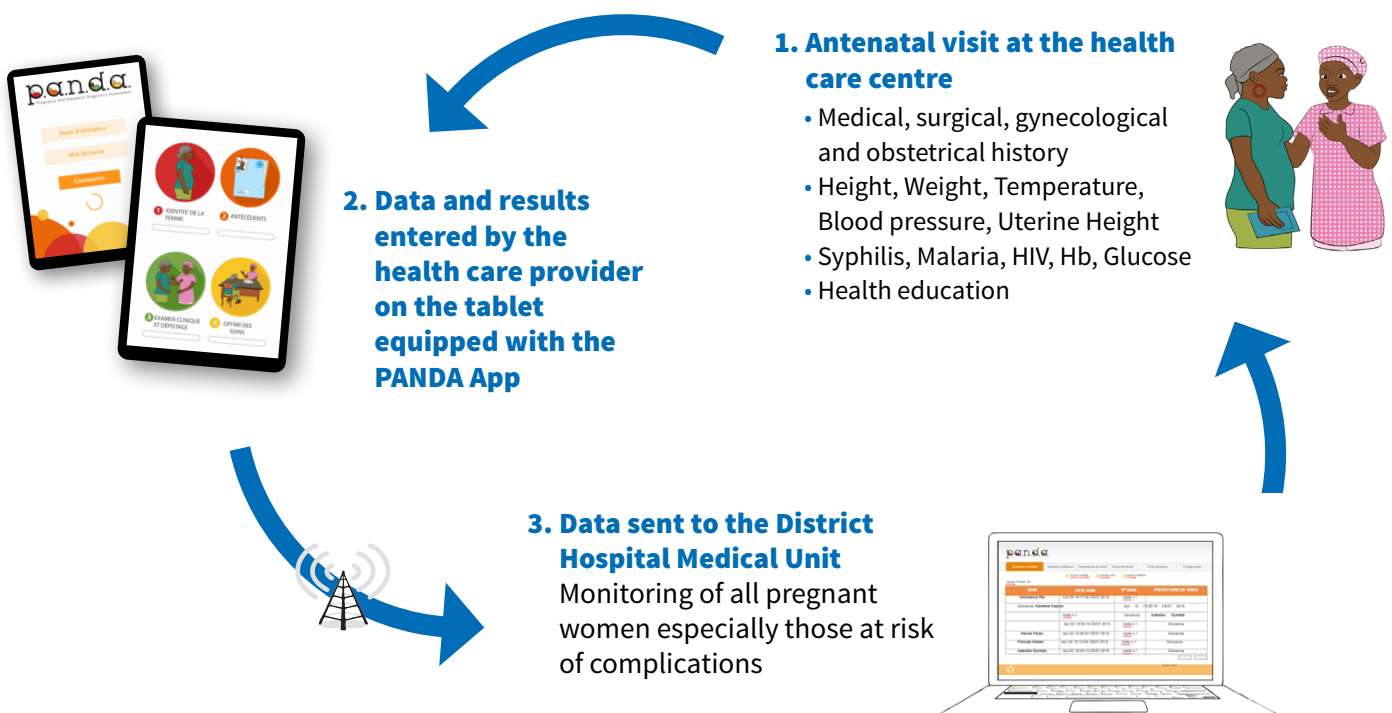
For whom?

The PANDA system is used by **health care workers providing quality antenatal care**. It is designed using pictograms to allow **the health care provider and the pregnant woman** to actively participate in the antenatal visit and learn more about birth preparedness and complication readiness.

Objective of the Panda System

To contribute to **improving the health** of pregnant women and newborns by **strengthening the quality of antenatal care**.

How does PANDA Work?

2. Data and results entered by the health care provider on the tablet equipped with the PANDA App

1. Antenatal visit at the health care centre
- Medical, surgical, gynecological and obstetrical history
- Height, Weight, Temperature, Blood pressure, Uterine Height
- Syphilis, Malaria, HIV, Hb, Glucose
- Health education

3. Data sent to the District Hospital Medical Unit
Monitoring of all pregnant women especially those at risk of complications

Areas of intervention

Burkina Faso: Koupela District

Madagascar : Ambanja Region

Tanzania : Nyololo District

Italy : Refugee camp in Sicily

Advantages

- Risk reduction of health care provider errors by standardizing antenatal care steps according to recommendations of the local Ministry of Health and WHO
- Timely identification of complications and emergencies during pregnancy
- Enable respectful communication between health care provider, pregnant woman, and her companions of choice
- Remote supervision and coaching of health care providers
- Automated electronic medical record for each pregnant woman
- Management of equipment and inputs for antenatal care
- Mapping of pregnant women based on their geographic location, stage of pregnancy and risks
- Allows for conducting epidemiological analysis

Technical requirements and specifications

The PANDA system is based on an android application and a remote information storage system.
- PANDA App : Downloadable on a smartphone or tablet from Play Store minimum version required Android 4.0
- Medical Unit Database: Java language - Encrypted and accessible data only with secure access (password and username); Different Security access levels
- Server: Microsoft Azure hosted in Europe

Publications

- Pilot study in Madagascar : https://doi.org/10.1177/1357633X16653540
- A Feasibility Study in an Italian Hosting Center for Asylum Seekers. https://doi.org/10.1007/s10903-017-0669-2
- Cross-sectional survey of knowledge of obstetric danger signs among women in rural Madagascar: Https://doi: 10.1186/s12884-018-1664-x
- Film PANDA : https://www.youtube.com/watch?v=34YZGsSql_o

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