



# Introducing the OPTIMUNISE consortium

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DEVELOPMENT COOPERATION



**Optimising the impact and cost-effectiveness of child health intervention programmes for vaccines and micronutrients in low-income countries**  
**EU FP7 supported OPTIMUNISE with 3 mill €**

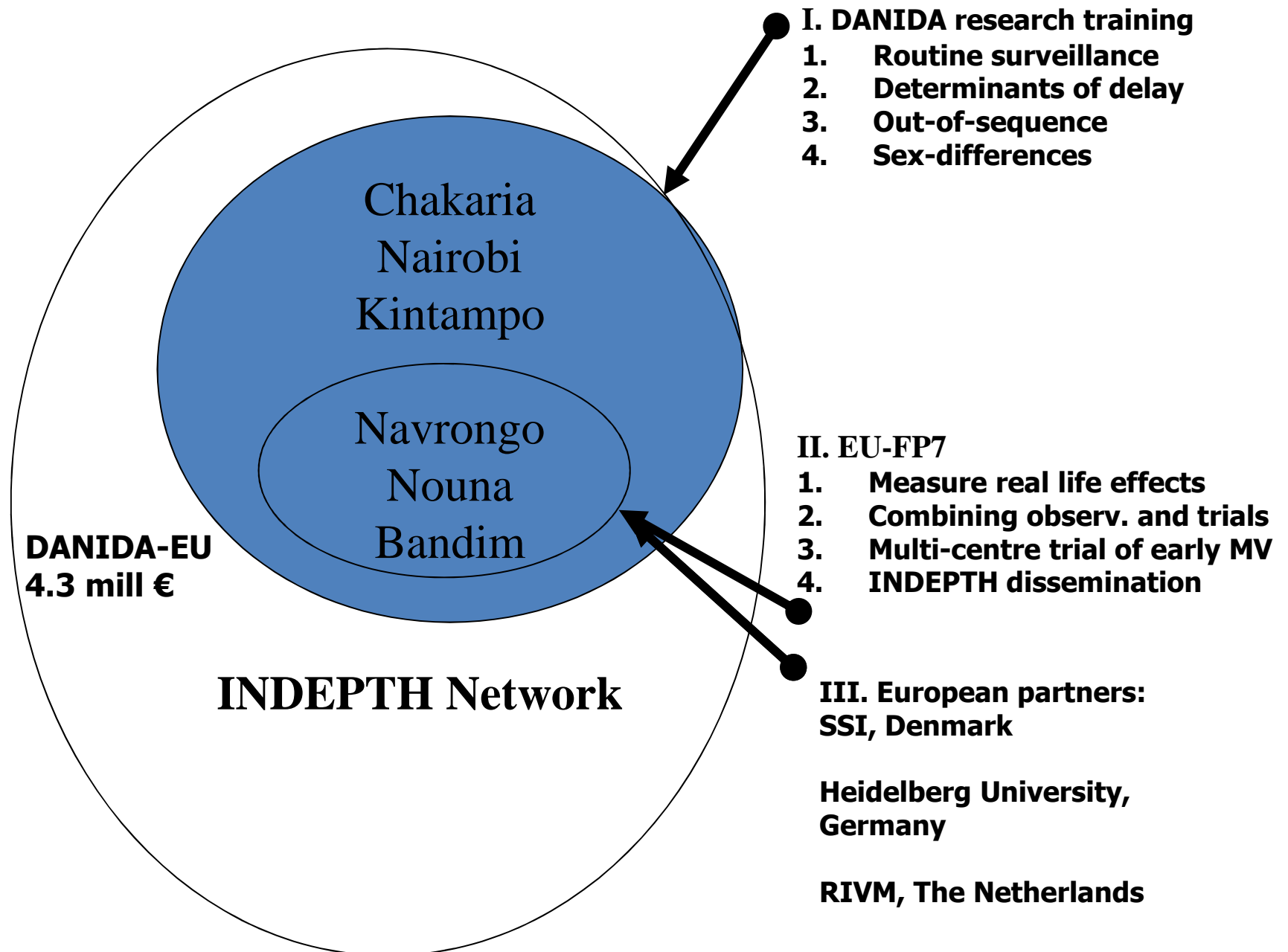
**Monitoring and assessing the impact of vaccination and other childhood interventions for both boys and girls**

**DANIDA supported research training within the vaccine network with 1.3 mill €**



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# INDEPTH's Vaccination and child survival Working Group





**The justification for both applications was the non-specific effects (NSE) of vaccines and vitamin A supplementation observed in many studies in Africa and Asia**

- **The way interventions are implemented is often quite different from the intended; e.g. BCG vaccination**
- **Vaccines and vitamin A may have positive or negative NSEs**
- **NSEs are often sex-differential**
- **Interventions often interact, e.g. vaccines and vitamin A**





## **EU had a call for “Impact and cost-effectiveness of existing major health programmes”**

- **We therefore suggested to use INDEPTH HDSSs for**
  - 1. Measuring the real-life effects of interventions**
  - 2. Testing possible modifications in trials**
  - 3. Testing new interventions or interactions in trials**



# **Specific objectives of EU proposal - 1:**

**To develop HDSS sites into a platform for monitoring real life effects of our current child health programmes with the aim to assess the specific and non-specific, sex-differential effects of child health intervention programmes, as well as intervention interactions. This implies collection of routine data on all health interventions in childhood.**

**A manual will be developed during the first year and will be updated based on the experience with implementing routine surveillance. The manual will be available through the INDEPTH Network. [Now available INDEPTH webpage]**

## **Specific objectives of EU proposal -2:**

**To measure the health impact and cost-effectiveness of the existing major child health programmes with vaccines and vitamin A controlling for known determinants of programme compliance.**

**Specifically we were to examine:**

- **The 4 hypotheses about sex-differential effects**
- **Effect of vitamin A provided with different vaccines**
- **Effect of age of BCG vaccination**
- **Effect of out-of-sequence vaccination with measles vaccine and DTP (diphtheria-tetanus-pertussis)**
- **Effect of additional dose of MV at 18 months**
- **Cost-effectiveness of rotavirus and pneumococcal vaccines**

**At least 8 papers were planned to be submitted during the 3rd to the 5th year of the project.**

# **Specific objectives of EU proposal 3+4:**

**Based on this platform:**

**(3) To evaluate in a randomised trial a specific modification of the current child health programme: To provide an additional measles vaccine at age 4.5 months, in addition to the recommended measles vaccine at age 9 months.**

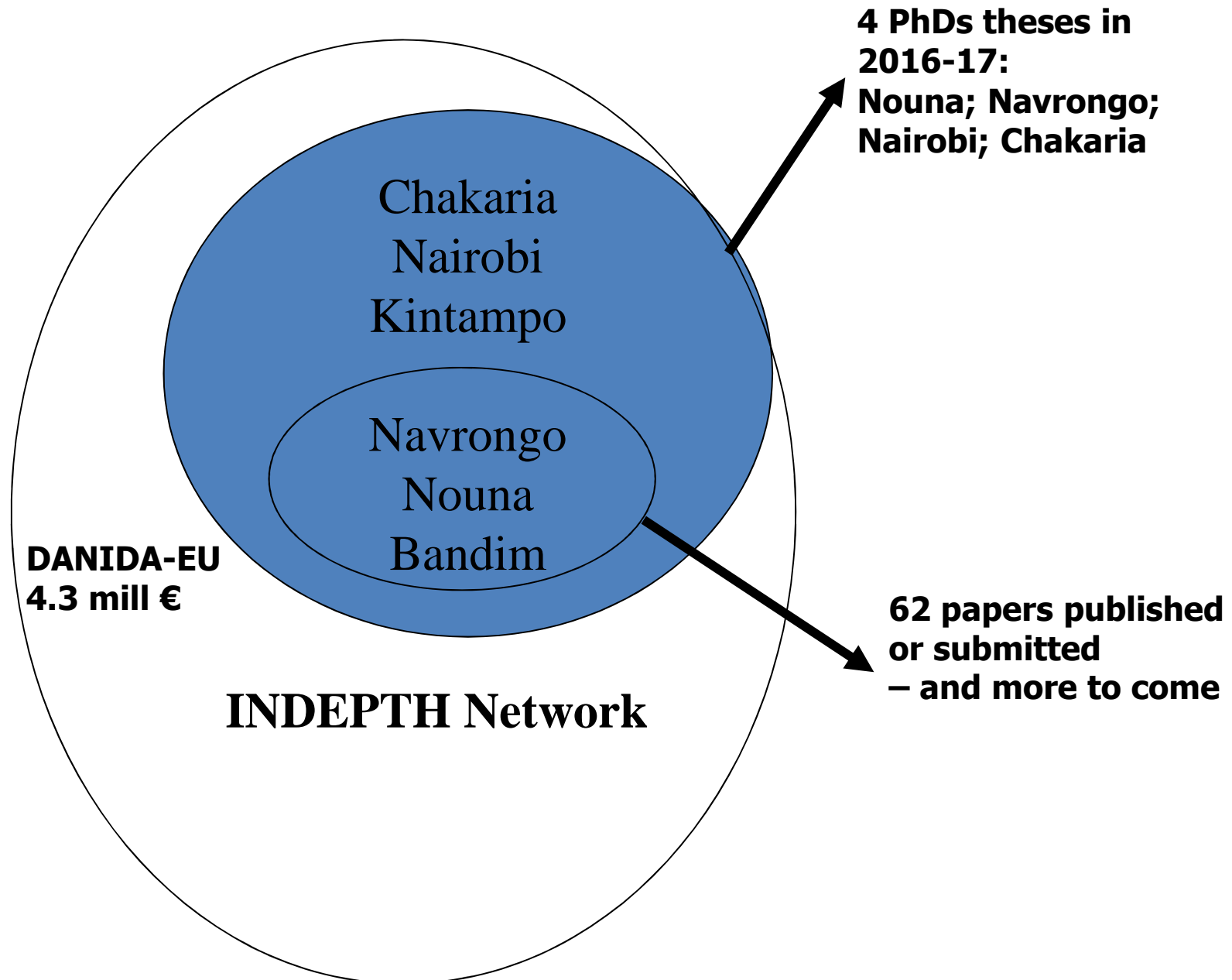
**(4) To assess the relevance of different health outcomes parameters for the evaluation of the real life effect of child health programmes.**



## **Challenges in implementing the OPTIMUNISE project**

- **The Ghanaian Ethical committee rejected the proposal for the early measles vaccine (MV) trial. Not considered relevant in Ghana but only relevant in GB and BF => enlarged trial in GB and BF => renewal ethical permission => delays in implementation and analysis of data**
- **Child mortality has dropped far more than anticipated => more difficult to measure effects of interventions**

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# OPTIMUNISE consortium



The vaccinations here are BCG (TB), oral polio vaccine and measles vaccine

We will take you on a journey:

- How different vaccines affect child survival
- How effects may differ for girls and boys
- How vaccines may interact with other interventions

The context for the EU project was the MDG4 – i.e. reducing child mortality by 2/3 from 1990 to 2015

So first we will present the three INDEPTH sites and how child mortality has declined