

# Supporting LIFE

Supporting Low-cost Intervention For disEase control -Low-cost interventions in resource poor settings

## Background

In developing countries, most of the 11 million deaths per year of children under the age five years occur in areas where adequate medical care is not available. In Malawi the under-five mortality rate is 133 per 1,000 live births. First-level health facilities - the closest health care services available to most sick children in developing countries are generally run by local healthcare surveillance assistants (HSAs).

Malaria and infantile diarrhoea are two major causes of mortality in children under 5 years of age. Other serious infections in this age group include pneumonia, measles and meningitis. However, only one in three children with fever are taken to a health facility. Most deaths due to serious infections such as malaria, pneumonia or dehydration in children could be avoided by prompt recognition and treatment.

The WHO and UNICEF developed the Integrated Management of Childhood Illness (IMCI) as a strategy to improve childhood survival and disease control. The IMCI strategy uses simple signs and symptoms to assess and classify illness, thus allowing health workers at first-level facilities to identify which children have minor illnesses that need symptomatic treatment.

## Objectives

The overall objective of Supporting LIFE is to combat mortality and morbidity among children in Malawi. It targets disease control in a multi-target intervention:

- Supporting LIFE provides local health surveillance assistants in Malawi with an electronic IMCI (e-IMCI) application based on mobile phones which can be used to improve the assessment, diagnosis and treatment of seriously ill children with infectious diseases and to circumvent the absence of healthcare infrastructures.
- It helps to ensure a more accurate diagnosis and reduces the barrier to care for those most affected by malaria/infantile diarrhoea (children under 5 years) by providing wireless vital sign sensors and expert decision support systems deployed on mobile technology at the point of care.
- It will also facilitate digital data collection of children's health status thus providing real time disease statistics in an area by monitoring symptom trends (e.g. fever/diarrhoea) centrally. This will help circumvent the absence of healthcare infrastructures in Malawi and enable the Ministry of Health to improve public health initiatives.

Primary focus is given to malaria and infantile diarrhoea disease control. However Supporting LIFE aims to be applicable to identification of children with numerous serious infections, including malaria and infantile diarrhoea, but also pneumonia, meningitis and sepsis.

#### Funding Programme:

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Project Duration: 01/05/2013 – 30/04/2017

Project Budget: 3.7 million euro

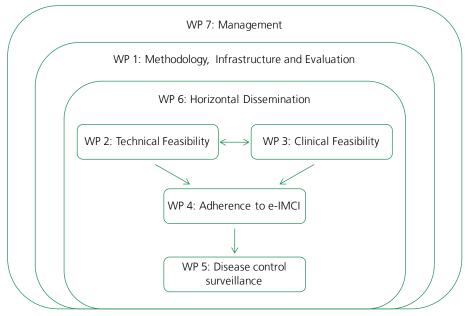
Project Website:

www.supporting-life.eu



# Activities

The concept of the Supporting LIFE project is to focus on the above objectives in different workpackages (WP).



The Supporting LIFE project comprises of four core work packages WP2-WP5. In WP2 an assessment of the technical feasibility of the e-IMCI is undertaken and the electronic version of IMCI is built and optimal fit for purpose of vital signs devices wil be identified. WP3 focuses on the clinical feasibility of IMCI/e-IMCI. WP4 will generate key Supporting LIFE evidence for the HSA adherence to IMIC/e-IMCI and its effect on other process measures and patient outcomes as well as an implementation strategy will be developed. The final core work package (WP5) will develop design guidelines for how the e-IMCI solution can become part of a national disease surveillance and management policy. The above-mentioned activities are supported by a set of base functions: WP1 will tackle Methodology, Infrastructure and Evaluation, WP 6 ensures the horizontal dissemination and WP 7 manages the Supporting LIFE project.

## Impact

Supporting LIFE develops a low-cost implementation and has an immediate and considerably high impact on the control of malaria and neglected infectous diseases in Malawi. The project aims to collect a large patient dataset, which will help overcome existing data deficiencies in healthcare disease control in low resource settings in Malawi. Through our local partners in Malawi, the Supporting LIFE project will educate and train health workers in manual and automatic (patient sensors) vital sign measurement and interpretation as well as how to use the e-IMCI tool to diagnose and treat young children with infectious diseases.

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