

# THE GOAL OF A DREAM

## ACHIEVING MILLENNIUM DEVELOPMENT GOALS



## **HIV: A MAJOR BARRIER TO ACHIEVEMENT OF MDGs**

Millennium Development Goals are ambitious targets set in order to have a more developed, healthier, safer and fairer world. As it is known, the HIV epidemic is one of the major barriers to such a world.

At the moment 35 million people are infected with HIV, most of them living in sub-Saharan Africa; such a vast epidemic represents a great problem for many slowly growing economies. The HIV infection is often accompanied by many burdens, such as social and gender discrimination, unemployment, maternal death, child growth deficit, malnutrition and other diseases.

## **DREAM: AN OVERVIEW**

In 2002 the Community of Sant'Egidio, an international faith-based organization, designed and set up DREAM – Drug Resource Enhancement against AIDS and Malnutrition - a Programme that aims to control the HIV/AIDS epidemic and malnutrition in sub-Saharan Africa.

The Programme is now active in ten African countries, in collaboration with local governments. Specially trained local staff confirm the Programme's quality and its success. The Programme has introduced a new way to face emergencies and at the same time is creating the foundations of development and sustainability.

The Programme is also endowed with an extensive high profile scientific background, which guarantees constant quality control and constant levels of excellence.

### **DREAM figures for 2002-2014:**

- 250,000 people assisted
- 42 centres
- 20 laboratories
- 10 African countries
- Over 1.5 million people have either directly or indirectly benefitted from the Programme: families, people involved in the health education programmes, HIV associations, beneficiaries of nutritional supplementation, preventive measures against malaria, water filters, etc.
- 25,500 children born within the special programme for the Elimination of Mother-to-Child Transmission (EMTCT): the documented reduction of transmission is from 40% (with no intervention) to less than 3%.

## DREAM AND MDGs

Through the years DREAM has developed a complex model able to directly or indirectly address various MDGs.



### GOAL 1

#### ERADICATE EXTREME POVERTY & HUNGER

The AIDS pandemic and related diseases are a major cause of poverty. Entire generations of adults are no longer able to work, take care of their children, contribute to the wealth of their communities. From the macroeconomic point of view the growth of many developing countries has been halted by the wide spread of the epidemic. Many GDP points have been lost, but most of all the future path for development has been put at risk, if we look at the problems caused by the virus in the health and education sector as well as regarding the accumulation of human capital.

All the interventions aiming to prevent of new infections but also to lessen the impact of the illness, like the DREAM programme, have a strong and immediate impact on economic development. The workers' productivity is restored in 6 months time; the economic burden of palliative care, assistance of sick people, care of orphans is alleviated; company costs for insurance, the turnover of workers, loss of investments and health care costs for employees are all reduced.

Furthermore, the investment made in the health sector to tackle the pandemic has benefitted the entire system, which is now more capable of assisting people who are also affected by other diseases.

Every single dollar spent in the fight against HIV/AIDS has to be considered not as an extra "health expenditure" but as an investment for the future of many countries.

Taking into consideration all these aspects of the economic consequences of HIV/AIDS and of the fight against it, is possible to affirm that a serious programme to eradicate extreme poverty and hunger cannot overlook the fight against the pandemic.



### GOAL 4

#### REDUCE CHILD MORTALITY

If untreated, the HIV infection leads to the death of 50% of infected children under the age of two. In South Africa, a region with a high HIV prevalence, it has been estimated that in 2005 AIDS accounted for 37% of the mortality of under-five year olds; thanks to increased access to treatment and prevention, in 2011 this percentage fell to 1.5% (Kerber, Lawn, AIDS 2013). The total mortality of under-five year olds has declined by 6-10% every year. Increased mortality has been observed among HIV exposed children, due to several factors which are more common in this

population: prematurity, low birth-weight, orphaned children, poverty leading to malnutrition, the policy of substituting breastfeeding in PMTCT programmes, poor complementary feeding.

The strategy of DREAM is based on the prevention of mother-to-child-transmission through maternal triple therapy, which means: less than 2% of transmission, decreased maternal mortality and thus less orphaned children; supporting exclusive breastfeeding, with maternal ART continued during the whole period of breastfeeding; improved child nutrition, decreased diarrheal diseases; follow up of nutritional and health conditions until 18 months of life, reinforcement of maternal knowledge about hygiene, nutrition, detection of signs of disease; improved health access for children

With this approach, DREAM registered a 67/1000 infant mortality rate in a cohort of 3,148 Mozambican and Malawian children, a mortality rate in line with or lower than background rates (Marazzi, Liotta, AIDS 2010).



## **GOAL 5 IMPROVE MATERNAL HEALTH**

HIV is a major cause of maternal mortality in sub-Saharan Africa, where maternal mortality rates are extremely high at 640 per 100,000 live births. Maternal HIV infection is responsible for approximately one quarter to one third of maternal deaths in sub-Saharan Africa. Antiretroviral therapy has widely demonstrated to be protective for women during pregnancy and delivery, in addition to preventing the mother-to-child transmission of the HIV infection.

The fulcrum of the DREAM model is the administration of antiretroviral drugs and continued nursing care for women during pregnancy and in the period following the child's birth.

In the DREAM Programme, maternal mortality is significantly lower than in the general HIV+ population; the reduction of the maternal mortality rate is particularly evident in those women who undergo antiretroviral therapy for more than 90 days. The preterm birth rate is also reduced, in children born to women who had taken the therapy for more than 90 days, compared to in the children of women who had not taken treatment.

In DREAM cohorts, HIV-related maternal mortality is neutralized with the use of triple antiretroviral therapy. As the HIV infection is responsible of one quarter to one third of maternal deaths in sub-Saharan Africa, we can hypothesize that HIV treatments are able to reduce maternal deaths by 25-34%.



## GOAL 6

### COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES

In the DREAM experience and in papers published in recent years (Granich, Lancet 2009), universal access to antiretroviral treatment has suggested (Montaner, Lancet 2010) a certain decline in the incidence of HIV. A paper reporting results from a realistic model generated from patients' data in the DREAM Programme, shows that universal treatment for all HIV+ people translates into a drastic reduction in new HIV infections (Palombi et al., Clinical Infectious Diseases, May 2012).

In many countries, DREAM has set up a network of health centres, laboratories, pharmacies, able to spread the treatment to the whole population of a specific area. Some of the major obstacles to the universal access of care concern the organization and management of services, distribution chain and stock rupture, presence of skilled personnel and equipped facilities; all of these issues have been addressed and overcome in the DREAM model.

DREAM is a complex model that aims to take care of the patient's overall condition, including opportunistic diseases. Pilot studies have integrated the DREAM model for the care and treatment of HIV infection with management of other disease strictly linked to AIDS, such as HPV, malaria and tuberculosis. If the model is enlarged and adopted at a district or regional level, HIV trends will probably invert, as tuberculosis and malaria burden of disease.

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