

Beating the Drum

the Jembi Health Systems Story



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Jembi Health Systems NPC is a non-profit organisation that works in developing countries, mainly in Africa, and focuses on the development of eHealth and health information systems (HIS). Jembi leads the way through innovation and commitment towards strengthening of eHealth and building local capacity. Jembi is registered in South Africa, Mozambique and Rwanda.

Jembi is driven by a passion for developing health information systems and to strengthen eHealth, with the ultimate goal of providing better care for the people living in low resource countries. Jembi works closely with local and international donors and partners to achieve these goals.

The Jembi Health Systems story remembers the founding of the organisation, commemorates key milestones in its history, and looks at where Jembi is today and where it is headed tomorrow. We are very proud of the work that Jembi has achieved in a relatively short time period, and know that great things lie ahead for our exceptional team and the groundbreaking work they are doing to promote eHealth in Africa.

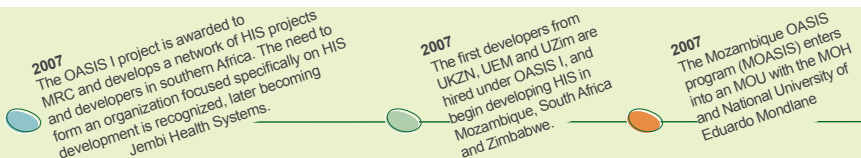
What's in a name?

The *djembe* is a traditional West African drum that has been played for centuries. It produces a wide variety of tones, which makes it highly versatile. It is a very loud drum that can be heard clearly over long distances. Traditionally, the drum was used to send messages from village to village in remote areas and to call people together, which is where the name comes from: *everyone gather in peace*. A skilled drummer is one who can *make the drum talk*.

Jembi Health Systems derived its name from the *djembe*, adopting it as the symbol of its work. Jembi is an organisation firmly rooted in Africa whose work is centred on strengthening health systems and sharing information to advance global health. Its commitment to developing and promoting open systems can be likened to those West African drummers sharing information and news from village to village. The Jembi logo visually represents the sounds the drums make as they communicate their message to others far way. The *djembe* symbolises Jembi's fundamental belief that sharing and facilitating the sharing of information has the power to benefit and uplift communities.

Jembi Health Systems Timeline

A few key dates in Jembi's history

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- 2007 The OASIS I project is awarded to MRC and develops a network of HIS projects and developers in southern Africa. The need to form an organization focused specifically on HIS development is recognized, later becoming Jembi Health Systems.
- 2007 The first developers from UKZN, UEM and UZim are hired under OASIS I, and begin developing HIS in Mozambique, South Africa and Zimbabwe.
- 2007 The Mozambique OASIS program (MOASIS) enters into an MOU with the MOH and National University of Eduardo Mondlane

Jembi's Beginnings

Jembi's origins can be traced to the Open Architecture, Standards and Information Systems (OASIS) project funded by the Canadian International Development Research Centre (IDRC) in 2007. The project was led by the South African Medical Research Council (MRC) and explored how open architecture for health information systems (HIS) could be applied in low resource settings and also how to operate and maintain the systems. With many HIS initiatives in low resource settings failing to achieve scale and sustainability, the OASIS project built up a network within Southern and Eastern Africa, working on sustainable business models for HIS.


Recognizing the need for a "home" for the work being carried out under OASIS, the project funded an NGO that was initially incubated within the MRC and then spun out into an independent organization in 2009 with additional support from the IDRC and the Rockefeller Foundation. Since inception, Jembi's country programs in Mozambique, Rwanda, South Africa and Zimbabwe have functioned with much local autonomy and local flavour. Under subsequent grants from the IDRC (OASIS II), Rockefeller Foundation, CDC, PEPFAR, WHO and USAID, Jembi grew steadily in size. The Mozambique country office (MOASIS), formed in association with the national University of Eduardo Mondlane, entered into a memorandum of understanding with the Mozambican Ministry of Health and grew into Jembi's largest program, carrying out in excess of twenty individual projects at any one time. The Rwanda country office, also working with the Rwanda Ministry of Health, has become a focal point of advanced informatics development in association with the South Africa office. Along the way the team recognised the important synergies and learning that can be created through the partnership between country programmes and the work being done in South Africa. As such, the Jembi Health Systems umbrella was established. Jembi Health Systems was officially registered as a non-profit company (NPC) in South Africa in October 2009, in Rwanda in 2011 and in Mozambique in 2012.

... one of the research objectives of the OASIS grant was to explore models for long-term sustainability of health information systems in low resource settings. Jembi is a direct result of this work

Planting the Seed

Jembi Health Systems has benefitted from the forward thinking and confidence of a few donors over the few years we have been operating. Without the vision of initial donors like the IDRC, the Rockefeller Foundation and subsequent support from the CDC, PEPFAR, WHO and USAID, among others, Jembi would not have been able to establish the strong foundations that it has. The generous support of these donors has allowed Jembi to develop its core technologies and services and grow into a professional organisation. Jembi has remained true to the original vision of these grants and continues to develop open architectures, standards and information systems for health in low resource settings through several innovative products and services.

2008
JHS spun out into HNSA which
was rebranded into Jembi HS



Mission Driven eHealth Work

Similar to other eHealth organizations, Jembi's work has always been grounded in a social entrepreneurship model, committed to investing in and developing information technology solutions that are within reach of the developing world. At the centre of Jembi's work are the end users. Jembi believes that if you can demonstrate clear value to the people who are using the systems, if the health practitioners that are on the front line of the health system can see the benefits of the technology, they will be more committed to using the technology and the data that you capture will be richer and more useful. In the end, the goal is to ensure better health outcomes for all people in the countries where Jembi works.

Jembi's rapid, organic growth meant that work was initially carried out on a more ad hoc basis, meeting needs and seizing opportunities where they arose. In 2012, with the support of an organisational development grant from the IDRC, Jembi worked with stakeholders from its country programmes to officially develop Jembi's mission and vision. Today, Jembi has a clearly defined vision and mission that drives its work:

Vision:

A world in which health systems and information advance global health.

Mission:

Jembi is an African non-profit organisation improving global health by developing information systems, growing partnerships and building local capacity, with focus on developing countries.

Impacting Health Service Provision

In Mozambique, where Jembi has been operating under the banner of MOASIS since 2007, the work of the organisation is highly regarded and is making a significant impact on the health information systems landscape. MOASIS has not only helped to streamline the initiatives that the Ministry of Health has to interact with, but also provides them with the technical guidance and assistance that the Ministry staff need to work with international donors, to interface with IT technicians, and streamline systems with national standards. One example of the impact that Jembi/MOASIS has had:

"For the last 30 years, managers used to ask themselves 'why (and where) are people dying?' We thought to ourselves that this is a problem because you need to adjust your policies to address the problem. We went there and developed a tool to answer this question – we ended up with the first report on mortality. Managers now do have an answer on why people are dying, because we do have a system that will give them information on causes of mortality. Thanks to this, one of the findings that the Ministry discovered was that most people died on the weekends because there were no doctors working. They made a decision to put doctors on over the weekend – small decisions like this make a large difference."

– Dr Alessandro Campione, Jembi/MOASIS Programme Director

June 2009
The Rockefeller Foundation awards the Open Enterprise Architecture project to Jembi Health Systems

October 2009
IDRC awards the OASIS II grant to Jembi Health Systems to continue its work in South Africa, Mozambique, Rwanda and Zimbabwe

October 2009
Jembi Health Systems is officially registered and becomes fully operational as an independent organization

March 2010
Jembi begins working as part of the Health Informatics Public Private Partnership (HI-PPP) through CDC/PEPFAR

Networks driving growth and innovation

Since its inception, Jembi has recognised that its strength is largely in the networks that it supports and cultivates. In addition to the network that it has developed across its country programmes, a few international networks include:

- **Open Medical Record System (OpenMRS) and Open Health Information Exchange (OpenHIE):** Jembi is part of the leadership of OpenMRS a worldwide network of volunteers building the world's largest open source medical software application. Jembi is also a founder member of OpenHIE, an international collaborative developing integrated free and open source software for health information exchange and interoperability. Jembi's OpenMRS and OpenHIE work is currently supporting improved antenatal care service delivery in Rwanda.
- **Vital Registration Systems:** MOASIS is part of an international network, coordinated by the World Health Organization (WHO), developing vital registration systems and capturing mortality data. Initiated five years ago, this work is producing systematic data of causes of death in hospitals. MOASIS also participates in the local chapter of the WHO Family of International Classifications (WHO-FIC), coordinated by the South African Medical Research Council where, among others, it contributes to the application of classification systems for mortality coding .
- **Health Enterprise Architecture Laboratory (HeAL):** Jembi, in close partnership with the School of Computer Science at University of KwaZulu Natal (UKZN), is a founding member of the Health Enterprise Architecture Laboratory (HeAL). It also participates in the Centre for Artificial Intelligence Research (CAIR). HeAL provides a research environment for the development of advance computer systems for low resource settings.

Professionalising Jembi's Service Provision

Jembi's **Corporate Services Division** was started in June 2010 and includes a team of staff providing clear and consistent policies and procedures for staff across all offices and enabling efficient and effective use of funds and accurate, timely compliance with donor regulations. The team's efforts have been instrumental in the growth of Jembi; without the systems they developed Jembi would not have been able to take on the large, complex grants from various donors that it has. In 2012 Jembi/MOASIS was recognised as the best practice organisation in Mozambique for Cooperative Agreement grants and project management.

June 2010
Jembi establishes its
Corporate Services Division

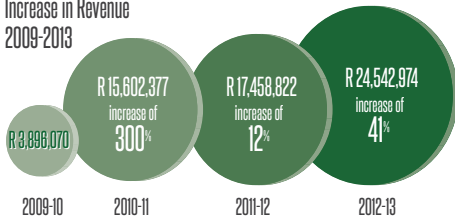
October 2010
Jembi begins working with the
Sports Science Institute of South Africa
(SSISA) on its first social enterprise
project to develop an athlete
management and
monitoring system

October 2010
Jembi/MOASIS awarded a five-
year cooperative agreement
to support continued work in
Mozambique by the CDC

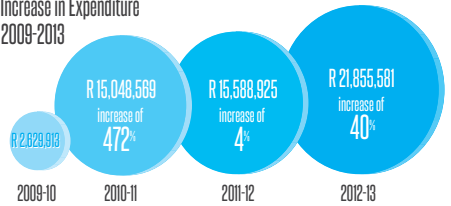
Jembi Today: Growth and Expansion

From its official inception only four years ago, Jembi has grown tremendously in both size and scope. Today, Jembi works in four countries (South Africa, Mozambique, Rwanda and Zimbabwe), managing 17 different grants and contracts from as many organisations, totalling over R24,542,974 ZAR (\$2,935,762) per annum. Jembi's staff, which include software developers, programme and support staff, now number 44 and are dispersed geographically across countries. Jembi's financial stability has grown as well, with more than R 6 m ZAR held in reserves.

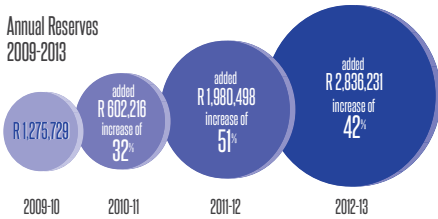
Increase in Revenue
2009-2013



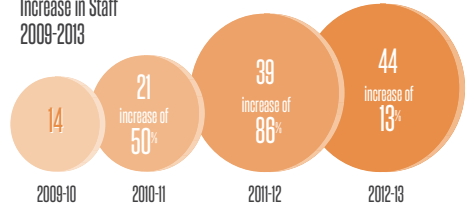
Increase in Expenditure
2009-2013



Annual Reserves
2009-2013



Increase in Staff
2009-2013



Jembi Health Systems has experienced astounding growth in only four years. It remains to be seen what can be accomplished in the next four. ▲

Jembi's Social Enterprise Model

One of the areas that Jembi is exploring is the continued expansion of its social enterprise model. In addition to grants and cooperative agreements from international donors, the team is working to develop open source software, products and services to generate revenues that can be invested back into the organisation and ensure its sustainability. Jembi also explores the social enterprise model through contracts with international donors and local NGOs in South Africa, allowing Jembi to continue to fulfil its mission and mandate by supporting like-minded organizations and simultaneously generating revenues to advance its sustainability.

May 2011

Jembi Health Systems is formally registered in Rwanda

October 2011

Jembi is awarded an organisational development grant from IDRC to pursue targeted strategic planning

October 2011

Jembi is awarded core support from the Rockefeller Foundation, further strengthening Jembi's ability to develop health informatics systems.

March 2012

MOASIS delivers the first report on causes of death in hospitals in Mozambique, based on data collected from its mortality coding system

Jembi's Future: Envisioning Tomorrow

With such rapid growth over the past four years, Jembi's future holds tremendous possibility. The next few years may see some continued physical growth as well as expanding services into other African countries, growing the grant and contract portfolio and diversifying the donor base. It will also likely include deepening Jembi's investments in the current country programmes, working more efficiently to do more with less, building on our networks to jointly develop solutions at country-level. Jembi also sees the development of its eHealth Centre of Excellence model with increased links between country offices and programs and sharing of expertise, tools, techniques and best practices. The organization is also committed to continued growth and expansion within scope of its mission and vision.

"In the next five years, Jembi will continue to pursue its current goals and objectives – as an organisation we are pretty much on target with what we're doing at the moment. We plan to play more of a role in South Africa, and reuse many of the technologies, products and services we have developed regionally in other parts of Southern and Eastern Africa, our primary focus areas. Additionally, Jembi will continue to work closely in partnership with others to develop large scale systems that really improve health."

– Jembi Strategy Workshop June 2013

Investing in People

A key to Jembi's future lies in our staff capacity and the capacity of the partners that we work with in country. One of the core values of Jembi Health Systems is that investing in people, both within the organisation and our partners, is instrumental in the success of our work. Internally, Jembi has senior professional staff with extensive applied experience in low resource settings. The organization also encourages staff to continually learn both on the job and through external opportunities. Jembi has sponsored a range of training courses for its staff including higher degrees at UKZN, technical, administrative and grant training courses. Jembi is constantly strengthening the opportunities for learning and sharing across country programmes, fostering learning exchanges and bringing together staff to discuss and compare experiences and jointly come up with solutions to problems.

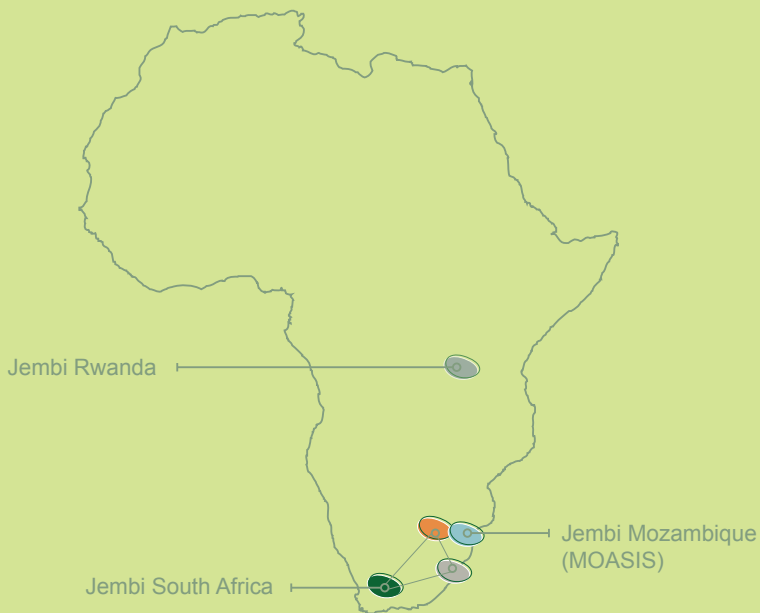
Capacity development for our in-country employees is also a priority for Jembi. Both technical and managerial training is provided to the end users: the government officials who are responsible for the use of the open-source solutions Jembi develops are trained in their use and management, and end users within the health system are provided with basic computer training as well as specific training on the health information systems designed for their country settings. Programme Management training has also been done in Mozambique with many staff members undertaking this training.

April 2012
Jembi Health Systems is formally registered in Mozambique

September 2012
Jembi delivers the first working health information exchange in Rwanda

March 2013
The Mozambique Ministry of Health, with support from MOASIS, awards a tender for the development of a national M&E application

September 2013
Jembi is awarded a Cooperative Agreement from USAID in Mozambique



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