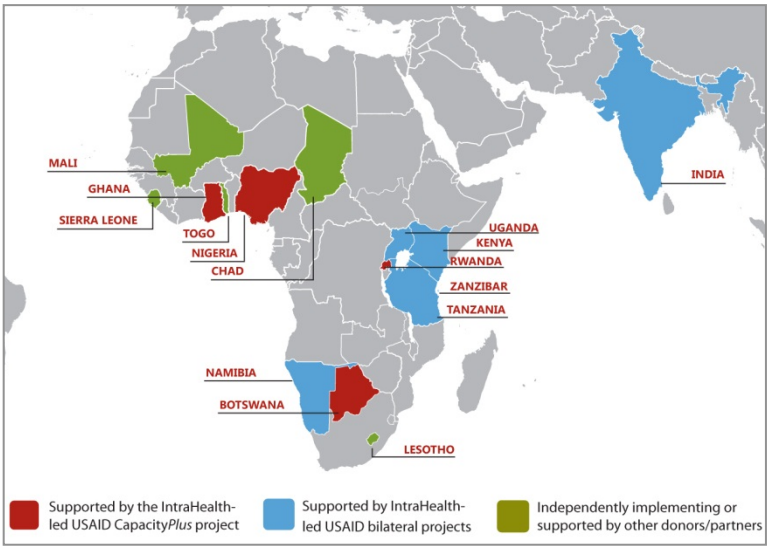
USAID's Investment in Open Source iHRIS Software

Greater Country Ownership of Health Workforce Policy, Planning & Management

Background

In 2005, country leaders reached out to USAID's global Capacity Project and requested simple, easy-to-use software and systems to help them capture and maintain high-quality information for health workforce planning, management and training. The stakeholders worked with the project to develop requirements and use cases, and in 2007, together released the open source ***iHRIS health workforce information software***.

Health workers are the backbone of any health system and are essential to the achievement of Universal Health Coverage. Yet most developing country health systems have little or no data on their health workforce numbers, skills, or location, and therefore little ability to understand and address health workforce challenges. If basic information on health worker numbers, constituency, and deployment exists, it is often spread across a large number of paper files among a number of different organizations, making the information difficult, if not impossible, to aggregate and analyze.



Countries actively using iHRIS by type of support

Started in 2004, the Capacity Project, USAID's global flagship project in HRH, worked with pioneering stakeholders in **Rwanda** and **Uganda** to define health workforce information challenges and possible solutions. At the time, an open source approach was chosen mostly on cost considerations. Proprietary corporate human resources information systems were expensive to purchase and charged large annual licensing fees even before any consulting costs for local adaptation were factored in.

As the Capacity Project evolved into the follow-on Capacity*Plus* project (2009-2014), the power of open source approaches to maximize local ownership, capacity-building, innovation, and partnership has continued to accelerate country adoption and application. Capacity*Plus* is currently conducting an economic evaluation of the time and money saved by governments using iHRIS compared to the use of paper systems or proprietary electronic systems.

iHRIS Applications

iHRIS is built on a flexible framework that allows for adaptation to a wide variety of uses. Applications built on this framework include:

- **iHRIS Manage** supports Ministry of Health and other service delivery organizations to track, manage, deploy, and map their health workforces.
- **iHRIS Qualify** enables professional councils and associations to maintain a database of registered and licensed health professionals to support increased quality of care.
- **iHRIS Plan** is a predictive modeling tool used to project the likely changes in the health workforce under different scenarios and compare them with projected needs.
- **iHRIS Retain** is a cloud-based tool developed in collaboration with WHO to help countries plan and cost retention interventions.
- **iHRIS Train** is a new application being developed by in-country teams to track and manage health worker training activities at the national level.

Country Implementation and Ownership

The open source approach of iHRIS naturally lends itself to rapid adoption by a diversity of stakeholders. Countries go through an implementation process of requirements development, adaptation, pilot, scale-up, and sustainability. A country is considered as 'using iHRIS' once there are countable records in the system. Since 2009, iHRIS has increasingly been implemented by USAID-supported countries and independent and third-parties. **There are currently 15 countries using iHRIS with 8 more in the pipeline (listed as *TBD*). Worldwide, there are more than 500,000 health worker records supported in iHRIS.**

USAID Supported Countries

Country	USAID Project	Start Year	Health Workers Supported
Nigeria	CapacityPlus	2011	171,000
Botswana		2009	22,000
Rwanda		2006	19,450
Ghana		2009	2,490
Malawi		*2012*	*TBD*
Tanzania	Tanzania HR Project	2008	114,550
Uganda	Uganda Capacity Project	2006	89,700
India	Vistaar*	2010	54,570
Kenya	Capacity Kenya	2007	52,000
Lesotho	HRAA	2007	2,930
Namibia	Namibia HIV/AIDS Project	2012	700
Dominican Republic	CAMCAP	2013	TBD
Guatemala		2012	34,700
El Salvador		*2012*	*TBD*
Senegal	*MNCH/FP/ Malaria Project*	*2013*	*TBD*

*Vistaar ended in December, 2012. Work will be continued through a buy-in to Capacity*Plus* (Jharkhand) and a DFID project (Bihar)

Independent & Third-Party Implementation

Country	Donor & Partner	Start Year	Health Workers Supported
Togo	WHO FSD	2011	9,980
Mali*	Canada	2011	2,500
Sierra Leone	WHO University of Dar es Salaam	2011	920
Chad	WHO FSD	2012	371
Algeria	*AFD/EU EPOS*	*2012*	*TBD*
DRC	*DFID IMA*	*2012*	*TBD*
Tunisia	*AFD EPOS*	*2013*	*TBD*
Zimbabwe	*CDC HITRAC*	*2013*	*TBD*

*Capacity*Plus* support ended in 2012. Work continues through independent ownership and support from Canada.

Regional and Country Successes

Regional organizations such as ECSA and WAHO became aware of early country successes and disseminated them to new countries through regular conferences and special dissemination events. Countries, in turn, have leveraged the open source approach to maximize country ownership.

East Africa

The early explosion of interest in iHRIS in East Africa is largely due to the leadership of the ECSA Health Community. ECSA shared regional successes at key events, resulting in Health Ministers' Resolutions in 2008 and 2011 to support stronger health workforce information.

Kenya

At Kenya's First National Human Resources for Health Conference in December 2012, country stakeholders worked with the USAID-supported Capacity Kenya project to use data from Kenya's national iHRIS-based HRIS to review gender issues in the national health workforce, resulting in ongoing policy discussions.

Tanzania

- Most health workers in Tanzania report to local governments instead of the national Ministry of Health. PMO-RALG, the office that supports local government, has worked with the University of Dar es Salaam (UDSM) and the USAID-supported Tanzania Human Resources Project (THRP) to adapt iHRIS **beyond health workers** to support all local government employees.

- Tanzania FBOs represent up to 40% of the Tanzania health workforce. Christian, Muslim, and private sector health associations are working with THRP to roll out iHRIS to member organizations and facilities, and improve data sharing with government systems.

- A recent HRIS data use course taught to FBO HRH leaders in Tanzania is being adapted as a global eLearning course.

- The iHRIS Administration online course offered by Capacity*Plus*' HRH Global Resource Center is being used in a classroom course at UDSM, resulting in a successful blended learning model. 42 students are currently taking the course.

Uganda

- Uganda has been an early adopter in iHRIS, leading the pack nationally and regionally in East Africa. The Ministry of Health has engaged the USAID-supported Uganda Capacity Project (UCP), CDC/Baylor, WHO and the World Bank to reach all **112 districts**, **13 regional hospitals**, and **5 national facilities**.

- In February 2012, a national launch of the Uganda HRHIS was held, officiated by the Vice President of Uganda, the Minister of State for Health, and the Deputy Administrator of the USAID Mission.

- Since the launch, the Uganda Ministry of Health worked with UCP to use stronger health workforce information to increase the national health workforce budget by nearly **$20 million** to hire over **6,000 more health workers** and raise salaries overall.

West Africa

In 2009, WAHO and a team of regional HRH leaders independently piloted iHRIS in a district of Ghana. The success and dissemination of this pilot resulted in interest in iHRIS across West Africa. WAHO and the Nigerian Foundation for Sustainable Development (FSD) continue to provide strong support in the region.

Mali

Despite a national coup impacting their work with Capacity*Plus*, stakeholders in Mali continue implementation of iHRIS started before the coup. Canada recently started supporting implementation beyond the original USAID-supported pilot district.

Global Reach

iHRIS is owned and led by a strong global community of users, implementers, and developers. Global initiatives are also beginning to identify uses for the software beyond the country level.

- Capacity*Plus* is supporting and **certifying a community of country-based iHRIS users**, programmers, implementers, and administrators. This approach increases capacity, responsiveness, and economics. The community is supported by several online courses for iHRIS administrators, users, and use of data.

- The iHRIS online community's more than **50 participants** have supported each other to resolve nearly **100 issues** since the community's launch in fall 2012. Regular community calls are starting in 2013 to further increase south-to-south sharing and support.

- The community is actively contributing to iHRIS development and documentation. The software has been translated by the community into more than **14 languages**, including French, Spanish, Portuguese, Arabic, and Swahili.

- iHRIS is increasingly being **coded in-country**. The first global iHRIS module developed in country was completed by the University of Dar es Salaam to support tracking of dependents. iHRIS Train is being developed almost entirely by teams in Kenya and Uganda to meet country-specific (or – identified) needs and will be further adapted for global use by other countries.

- Global initiatives are also recognizing the value of iHRIS. The UN's One Million Community Health Workers' Campaign has reached out to Capacity*Plus* to explore the use of iHRIS to support tracking progress in the Campaign. The MEPI Coordinating Center is also interested in adapting iHRIS to track MEPI graduates.

- In March 2010, WHO's Department of Human Resources for Health, the Global Health Workforce Alliance, and the Health Metrics Network jointly called for the establishment of a Health Workforce Information Reference Group (HIRG) to promote a coordinated, harmonized, and standardized approach to strengthening the global evidence base on HRH. USAID's engagement has been through the participation of Capacity*Plus* and its experience with iHRIS.

- iHRIS has had **increasing collaboration with other multilaterals and USG agencies investing in HRIS**. iHRIS has been adapted in Rwanda and Guatemala (and later this spring, Nigeria) to meet country-specific HRIS requirements developed under the leadership of the HIRG, WHO, and CDC.

- PEPFAR's Health Information Systems Technical Working Group has engaged Capacity*Plus* to contribute to PEPFAR's Open Health Information Exchange (OpenHIE) with a national-level Provider Registry based on iHRIS technology. The Provider Registry is designed to serve as a canonical source of provider information for eHealth and mHealth system. The first installation of the OpenHIE was deployed in the Rwamagana district of Rwanda in September 2012 to support the sharing of medical records for maternal and child health. The OpenHIE and Provider Registry are now being adapted for application in other countries

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