

## Summary Learning report Tanzania 2009 Impact of the Health programme

*"...to utilise IT and help to improve medical services in those areas where there is availability of equipment and shortage of human resources"*

**This report is a summary of the Monitoring & Evaluation (M&E) report on the Tanzania Health sector programme in 2008. Summaries are published on the IICD website to show the work of our local project partners and the results that these partners and IICD have achieved. Important to point out is that evaluation reports are meant for learning, hence they focus on the outcomes and impact of the projects as well as their successes and challenges, rather than checking on project progress or money spent, which is done via progress reports.**

**Evaluations are based on questionnaires for different stakeholders. Depending on the country, the evaluation includes project teams (reflecting on IICD's support), participants of trainings (reflecting on capacity development) and end users (reflecting on the projects they take part in). Data from these questionnaires is analysed by a local M&E partner, who also facilitates a subsequent Focus Group meeting with the partners who implement the different projects. The discussions in this meeting result in more qualitative data from the projects (what is actually happening on the ground) as well as exchange of experiences (successes and challenges), and lessons learned for partners and IICD.**

**The evaluation report below is the unmodified original work of Clement and Emmanuel Kwayu of BUMACO, the M&E partner for Health in Tanzania. It gives an overview of both the data collected and the discussions that followed in the Focus Group. Though sensitive information from specific partners has been removed to maintain a trust relationship with and between partners, M&E reports are an honest representation of the processes and lessons concerning the Country Programme. In 2009, the Health Programme projects in Tanzania collected 228 questionnaires.**

### **The Health Projects**

Since 2004 IICD in collaboration with CORDAID have been supporting various health institutions to acquire, install and use management information systems and other ICT tools, such as Telemedicine to achieve higher degrees of efficiency and effectiveness in the delivery of health care. The support is in hardware and software facilities, training cum mentoring consultant in place, periodic monitoring and evaluation, and periodic get together to share learning and experiences. The ELCT Health Management Information System entails computerization of entire hospital information systems integrating financial, administrative and health care services to provide comprehensive online

information at various points for decision making purposes. The project covers hospitals in Arusha and Kilimanjaro Regions of Northern Tanzania and is being extended. The D-HMIS, in Mwanza use ICT to improve collection, storage and analysis of health data at the district level to raise data accuracy, accountability, service delivery efficiency and effectiveness in intervention. The City Medical Officer (CMO), the African Inland Church Tanzania (AICT), Evangelical Lutheran Church Tanzania (ELCT) and Roman Catholic Church (RC) as partners in Mwanza city aim to improve effectiveness, efficiency and quality of work, in health care.

The IICD/ELCT distant medical practice – Telemedicine – aim to (1) reduce the strain due to a shortage of qualified personnel, (2) contribute to training and continuous professional development, (3) improve the quality of health services in rural areas, (4) contribute to the re-establishment of a referral system and (5) be cost-effective.

The Modular Strategic Implementation of Information and Communication Technologies in Health Care Facilities (MCIF) Project is being implemented in Sengerema and Magu. The strategy, taking into consideration the various characteristics and requirements of each health care facility, facilitates choice of any module that best meets the facility's own urgent requirements. A modular approach also ensures that ICTs can be implemented in a phased manner such that changes for the local staff and management structure come gradually and are not over-whelming.

#### **The Monitoring and Evaluation exercise**

In June –August this year, 61 end user questionnaires from projects were analysed and presented for discussions in a Focus group held on 25<sup>th</sup> September 2009.

In the analysis, some comparisons between the results of this year and those of 2008 were made.

The end users' questionnaire focuses on the extent to which the project services are used, the level of satisfaction by end users and the developmental impact of the project at individual, organisational and sector level. To gauge the manner in which the project has been implemented by various players namely IICD, the beneficiary organisation and even individuals the Project implementation questionnaire is employed. In July – August this year, 32 project implementation questionnaires were collected from project managers and team members.

The data was analysed and used to produce a report which was incorporated and discussed together with the end user' report. This Summary is a synthesis of the views of the end user' and project implementers of IICD Health Projects deliberated in a focus group held in Mwanza on 25<sup>th</sup> September 2009.

#### **End users' profile**

The Health Project end users have a rich background in age, gender, education, income, and the areas where they live. 80%

of the end users are below 50 years. Gender wise, 57% are male while 43% are female. The figures last year were 43% male and 57% female.

61% have attained secondary education, 39% have attained tertiary education, and 5% has primary level of education. Last year the figures were 45%, 45% and 10% tertiary, secondary and primary. The decline in Primary education and increase in tertiary education may reflect staff improvement, going by the notion that with higher education productivity improves.

72% of end users consider their household incomes as average. The remaining 21% and 7% have rated their household incomes as below average and above average respectively. When compared gender wise female (85% female against 63 males) dominates the group of those with average income while male is dominant in the groups of those with below and above average income.

The majority, 56% of respondents lives in provincial or district towns, 43% live in rural areas where as only 2% live in capital city. This very much reflects the areas in which Churches provide health care services.

Participation in the project is motivated by desire to acquire knowledge and to give superior service within the health sector. Typical assertions include such statements as *"To improve my knowledge in medical communication and hence my skills in teaching medical students"*

*"To be able to utilise IT and help to improve medical services in those areas where there is availability of equipment and shortage of human resource."*

#### **Frequency and manner of use of Services**

95% of users use the projects weekly or more often, 80% of respondents even use the projects daily. Only 5% use the projects monthly or fewer than once a month. The frequency of the use of the projects is very good. Daily use at 94% last year was higher than 80% this year.

This issue was further explored in the Focus Group discussions when talking about **"Use of the project and cultural change"**. What explains the decrease? Varying explanations were given for this. Typical is end of institutional memory due to staff turnover

whereby some mostly move to places where system is not used at all. Other reasons include:

- Lack of reference or documentation on the application that is in use
- Lack of necessary supervision for motivating the staff; motivation from IICD and management is moved from one site to a new site, leaving the old sites to perish. People fear that this happens when attention is given to a new site before existing sites are ready.
- Technical problems, lack of reliable back up options.
- Lack of management support from both the top level management and the IT support staff.
- User friendliness when it comes to submission of DHMIS data (MTUHA) and lagging on the use of computers
- Expectations that the project shall come with extra packages for instance money.
- Technical know how, due to either perished skills or lack of sufficient trainings

The frequency of use of the project in relation to the gender of the project users reveals a slight variation with male using the project more frequently at 83 % on a daily basis as compared with females at 77%. With respect to the level of education, on a daily basis, the project users with secondary education use the project more often at 92% compared to those with primary and tertiary education whose frequency is at 67%. With regard to age, the frequency of use of the project by people with age forty (40) or less use the project more frequently at 88% compared to 65% for users with age 41 and above. A major positive shift is in the manner of the use of the service in which 93% as opposed to 26% last year use the service electronically.

#### **Goals Attainment/Achievement**

Achievement of end user's goals at 88% compared to 69% last year is very high. This year's reflection of the goals achievement in relation to the age of the project end users is relatively the same as the last year. As it was in the last year, the younger people aged 40 years and less have achieved their goals at higher level than those with more than 40 years. Educationally wise, achievement of goals last year was directly related to education of the project user where as this year's achievement of goals is inversely related to education.

Gender wise male project end users goals achievement at 94% is higher than that of females at 80%.

The above, presented levels of the project end user's goals achievement are related to the reasons mentioned below. Typical assertions include

*"Daily access to health related information and having communication with other health stakeholders, access to advice of specialists and other related health professionals."*

*"I am updating myself with current medical issues including diagnosis and management with the use of telemedicine and Afya Mtandao."*

*"I have achieved my goals because I now know the importance of change and change management for the betterment of the community."*

Failure to fully achieve goals by a few participants was partially due to failure of other departments to supply the necessary support, high turnover of clinical officers, inability of doctors to use the system, power cuts, poor connectivity and need for additional training.

Users satisfaction on various project services is slightly diverse with satisfaction on the quality of the information, cost of the information and technical support being much higher marked over 80%. Satisfaction on the suitability of the facilities for the women and other disadvantaged groups is slightly higher than on the access to information by mobile phone, manual and handouts. Not all projects however use mobile phone services.

The overall level of satisfaction for women on various project services and materials is slightly lower than that of men.

#### **Development impact of the programme**

The development impact of the program is assessed from awareness, empowerment, economic, sector, negative and gender constructs. These reveal the impact of the project on the individual as well as the larger organisation.

Awareness; the level of awareness in this project is 81%. Awareness shows how far users of the project have become more aware of the possibilities and use of ICTs for Health in their work or daily life. The score is a composite of user's levels of agreement to various statements. The statement contributing to the high score is through this project I feel responsible for high quality health service.

Over the past three years awareness has had an upward trend, rising from 57% in 2007 to 69% last year and 81% this year. This is a big pointer to success.

Empowerment has a score of 64%. Unlike awareness which has gone upwards, empowerment has remained more or less at the same level as last year. It rose from 44% in 2007 to 65% in 2008 and now stagnated at 64% this year. The score indicates what users have learned and how they applied their new knowledge and skills in practice, for instance by using the computer to search information, or by helping others. The score is pulled up by such statement as "I have gained additional skills" and pulled down by such statement as "through this project, women have more than before influence on decision making." Although one would expect empowerment to follow awareness closely, application of skills and knowledge is a more taxing exercise requiring time to simmer through individual and corporate behavior.

Economic impact of this project has a score of 51%. It indicates the indirect economic benefits, such as greater efficiency for the hospital or better job perspectives for the individual. As with empowerment, economic impact has not registered an upward trend this year. Having risen from 48% in 2007 to 57% in 2008 it fell slightly to 51% in this current year. The pull up statements include "I see more opportunities; my job has changed for the better. The pull down statement asserted that this project opens up new opportunities for women.

Sector Impact of this project has a score of 64%. Sector impact looks at the improvements in quality of hospital and healthcare in general, for instance by improvements in record keeping. The pull up statement includes better health care and self development, while the statement with lowest score was "this project has resulted in increased social inequality between men and women. As with awareness, sector impact is having a positive upward trend moving from

30% in 2007 through 52% in 2008 to the present 64%.

Gender impact of this project has scored 51%. This measures the way women benefit and get involved in the organization activities and decision making. The highest scoring statement was "through this project women have more than before influence on decision making" while the lowest scoring statement is "this project increases social inequality between men and women." A trend for the past has not been established for this parameter, but indeed the score is encouraging, with some room for improvement.

Negative impact of this project has scored 2%. This measures the negative (unforeseen) aspects of the project, such as only catering for privileged people. Negative impact in 2007 was 18%. It rose to an alarming level of 49% last year. The decline to 2% this year shows a marked improvement and a close touch of achievements to the intended purpose.

Negative impact was an important aspect of last year's Focus Group meeting. Some of the reasons and suggestions given at the time with regards to negative impact were for instance lack of follow up of coaching or training activities, lack of confidence, problem of motivation (direct and indirect) and high staff turnover in the organizational level after training

The FG addressed these issues and traced any follow up that contributed to the decrease in negative impact this year. In a theme called: **"What happened with negative impact?"**

Lack of training was addressed by on job training, online support for some facilities (ELCT and St. Elisabeth) and Mobile phone and e-mail support.

Lack of confidence was done away with by allowing unrestricted and continuous use of computers and related accessories.

Motivation was enhanced by instilling a higher sense of ownership, more involvement of professionals and peers to train those at their own level, and greater engagement of decision makers.

The issue of high staff turnover is very complicated and little has been done about it.

Participants were of the opinion that more could be done to further reduce the negative impact. There should be a mechanism of recognising and awarding staff and end users, continuous improvement of working conditions and centering on performance as opposed to restrictions on use of computer. The restrictions on computer use also sparked quite some debate. Some staff members had good experiences with having users freely experiment with equipment and software, whilst others felt that restrictions were necessary to avoid chaos and misuse.

### **Resistance to Change**

The issues addressed in the negative impact are in semblance with those leading to resistance to change, also discussed during the Focus Group. Some of the visible signs are seen in reluctance to invest in ICT, lack of enthusiasm in organisations, inadequate information and underground sabotage from top management and some co-workers. At the same time there are issues which cause staff to become critical. These include double work (paper and electronic), Lack of commitment of what ICT can offer from top and some staff, Level of transparency brought up by introduction of computerized system, unstable power supply with no alternative, age limit to health personnel and weaker collective responsibility during implementations.

As these issues are addressed resistance to change is overcome. Engagement with top management and bishops has led to many hospitals applying to become AFYA members. Perhaps middle management is more complicated. More financial support, getting out all paper so that people are forced to work on the computer patience for results, greater involvement in decisions and more stable power supply may all result in less resistance to change.

### **Project implementation**

As noted at the beginning of this report, project implementation data was also collected and analysed with the members of project implementing teams. The issues touched on include

- Nature of collaboration of different actors
- Enabling in planning at both strategic and operational levels,
- Facilitation of technology and management training,
- Sufficiency of human, financial and other resources

The profile of the respondents in age, sex, occupation, residence and income is an interesting mosaic of Health Sector workers. 94% are under 50 years of age with the mode of age group 31- 40 years (55%). The male to female ratio of 55%:45% respectively give men a mild dominant position. 39% and 58% respectively have secondary and tertiary level of education. Only 3% of the project implementers have primary level of education. 61%, 30% and only 9% live in the provincial or district town, rural area and capital city respectively. 94% of project implementers rate themselves as having average income when compared with other people in the community.

The profiles of Project implementers depict typical middle class professionals with sufficient education and young age to cope with change. In comparison to the end users, project implementer are much younger, more educated and more urbanised. Gender proportion however is about the same.

The comparison of the feelings of the project implementers from the IICD support and local support on various aspects of the project shows interesting results. With respect to the support on the strategic planning from IICD and local project consultant, both were high. While support from IICD was 82% local project consultant support at 88% was slightly higher. Feeling on the support on the operational aspect of the project was slightly different from the support on the strategic planning. While support from IICD was 78%, support from local consultant at 74% was slightly lower. Technological support from IICD at 53% was much lower compared to 73% from the local consultant. This may be partially explained by closeness of the project users to the local consultant. In the area of the technical and managerial training 70% were satisfied with the support from the IICD while only 62% were satisfied with the training provided within the project by local consultant.

The project organizational support in terms of the collaboration and resources to the project implementing institutions show that the majority of the project implementers acknowledged high level and smooth collaboration between project partners ranking it at 91%. Human resources, financial resources, institutional resources in the project implementer's institutions were ranked 54%, 51%, and 51% respectively. This may be an indication of the need for enough qualified people and adequate

financial resources to make the project more productive.

Many of the project implementers have acknowledged the innovativeness of the project. This is evident to many of the project implementers as about 72% consider the ICT health project in Tanzania to be the first of its kind. While 75% of the project implementers have developed a new type of activity in their sector through the project, 87% are convinced that the project is deployed to improve or strengthen the existing types of activities within the health sector.

The projects' cooperation and interaction with or between this project and similar projects as well as publicity, reveal very poor performance. Only 36% of the project implementers had positive feeling of the existence of interaction while about 36% were neutral on the issue. On publicity of the project in the local media, 42% of the project implementers were neutral while 39% were negative. The issue of co-operation, visibility and extension of project benefits was taken in FG at length. The same was touched upon by the visiting evaluator who noted that although the project was very positively contributing to the achievement of MDGs, organisations like embassies knew little about IICD work.

#### **Visibility and extension of the project benefits**

The FG stressed the need to extend and make the project benefits visible. Different ways of making this possible were discussed and in brief cover the following:

- Involvement of all personnel in the health unit and creating among staff awareness of enhanced quality of care resulting from application of ICT. It was noted that in some units only the people directly involved in ICT were aware of benefits. This limited the support of the project by the entire staff. To involve the entire staff would also create a sense of ownership and broaden the interest of all staff to be computer literate. Even more critical is the involvement of leaders in every step in order to make implementation easier.
- Documenting best practices and sharing these with others. By and large, best practices within the project remain in files as reports. The FG suggested that these should be edited to make them less technical and less formal. The edited material should be shared with

others both within and outside the health units. In some cases, especially when the documents are sent to stake holders like church leadership, district councils and health boards, Swahili versions should be prepared. This will facilitate creation of awareness in community at large. Purposeful demonstrations on role of ICT in health care could be arranged for entire district medical personnel or health centres. Such demonstrations should invite decision makers and would be financiers.

- End users should be empowerment, through transparency of all issue and factors involved in the project to make them more knowledgeable. The issues concerning perceived and realized costs, savings and benefits as well as anticipated problems should be very clear to this group. This will give them room to contribute to the facility development. Advice should be sought from users.
- Other stakeholders should be involved during evaluations their testimonies on what they have seen and their views on different aspects of the project may throw some light on ways of enhancing the benefits.

With regard to gender 58% of the project implementers were satisfied that the project has changed the role of the women for the better. Of the rest, 14% were neutral while 28% did not agree to the statement that "this project changes the role of women for the better". In developing of the contents of the project, 74% of the project implementers took in the viewpoints of men and women. Only 26% of the project implementers did not.

23% of the project implementers have indicated that, as a result of this project, they have initiated other similar projects. These include e-IMCI, ICT implementation strategy, DHMIS, Mobile Health research with Harvard Public Health School, Telemedicine Tanzania and Mobile Health. Four years is a short period for assimilation, implementation and extension of application of a new technology. In the light of this, the 23% of respondents referred to as innovators have done very well.

Apart from new projects individual staff pointed out at personal gains ensuing from implementing the project.

Problems encountered in the implementation of the project include delay of funds, power cuts, shortage of equipment, insufficient funds, overflow of patients, transport problems, change management, double work (Using MTUHA and entering in the computer later) poor connectivity, and inability of some boards to respond to governance issues thus delaying the making and implementation of decisions.

### **Conclusion**

The foregone analysis has demonstrated the positive impacts the project is having. Past analysis has pointed out at the need to consolidate achievements through more intensive training and additional IT equipment. This, notably training, should continue. Both end users and project implementers share a common conclusion that a lot has been achieved at individual level, within the health sector and the society as a whole. IICD is championing in Tanzania a quiet revolution in Health care. Visibility which enables sharing and calling for other players to come in is lacking. This should be taken up along with bold steps to expand the programme.

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