IAPB

**Working Together
to Eliminate
Avoidable Blindness**

COMMUNITY HEALTH WORKERS IN SUB-SAHARAN AFRICA

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INTRODUCTION: Background of the study

Globally, 285 million people are estimated to be visually impaired, 39 million of whom are blind.[1] Africa bears a disproportionate burden with 7.3 million people estimated to be blind with a further 26 million suffering from moderate to severe visual impairment.[2] In addition, communities perceive eye health as an important health issue, ranking it between 7th and 8th in a variety of settings[3].

About 80% of causes of visual impairment are due to treatable or preventable causes. Recent advances in eye health technology, training, research and delivery have contributed to a net reduction in the number affected over the years[4]. However, factors such as shortages and inequitable distribution of eye health workers may be detrimental to sustaining and improving this trend.[5, 6]

To compensate for the shortages in eye health personnel, a task shifting or sharing approach can be used and Community Health Workers (CHWs) can contribute to the tasks of the eye team. Tasks can be shifted from higher- to lower-skilled health workers (e.g. from a nurse to a CHW). New cadres can be created, whereby tasks are shifted from workers with more general training to workers with specific training for a particular task (e.g. community volunteers trained as community directed distributers (CDD). Task shifting can reduce the time needed to scale up human resources for health (HRH), because the cadres performing the shifted tasks require less training and/or to increase productive efficiency (i.e. to increase the number of health care services provided at a given quality and cost, or, alternatively, to provide the same level of health care services at a given quality at a lower cost) How the tasks are split/shared between CHWs and others will be country, context and programme phase/stage and time specific.[7-9] Figure 1 seeks to demonstrate the complementarity of comprehensive health services, disability services and social inclusion as well as the increasing visual loss and cost and decreasing quality of life to patients when the primary level fails. Community health workers working at the community level within primary health care (above the red line) would prevent *the slide downwards* and for those permanently visually disabled, facilitate their rehabilitation and social inclusion.
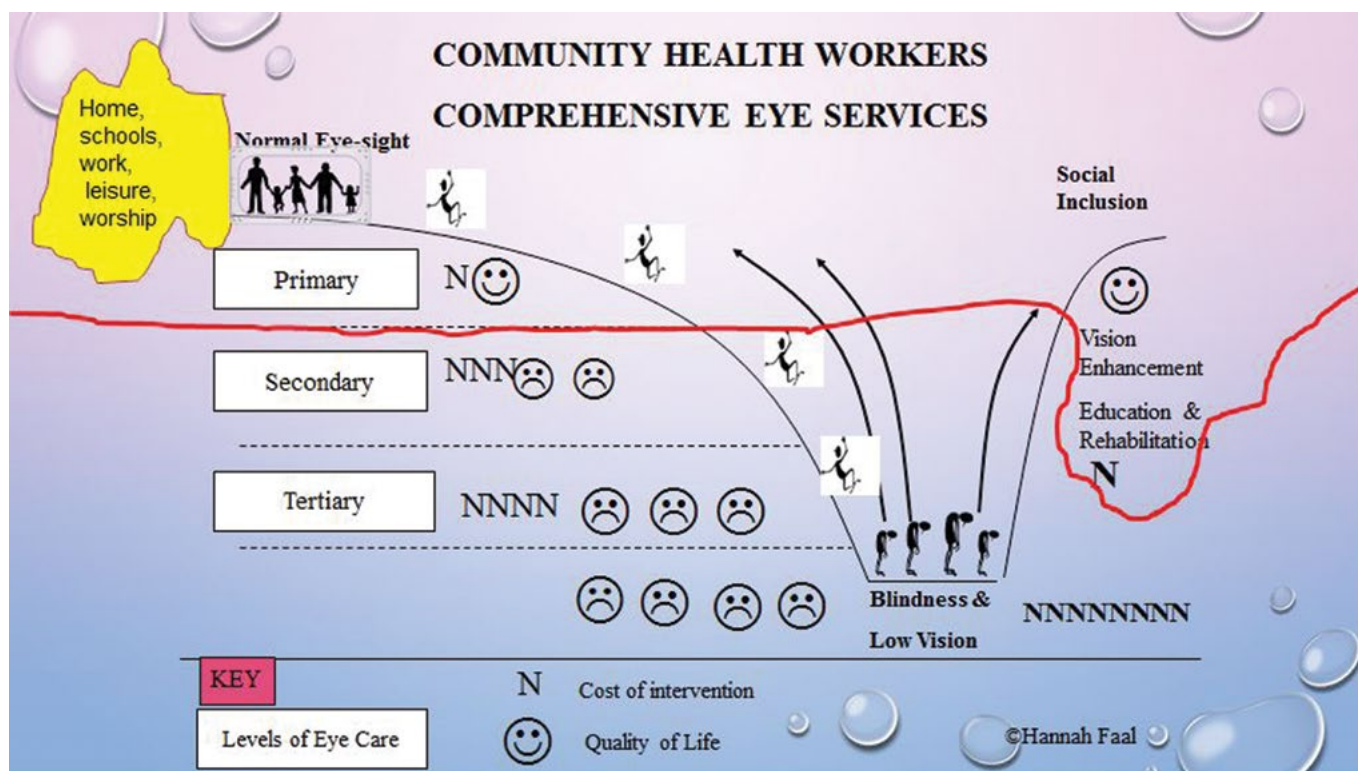
Figure 1: This figure shows that if CHWs are not enabled to contribute to eye health at the primary level with preventative and promotive care and appropriate referrals, the costs of eye health care escalate, as people require care at secondary and tertiary levels. A person can thus slide down the slope of increasing visual loss from avoidable causes with a resultant negative impact on quality of life. Vision enhancement, education and rehabilitation which community health/disability workers can provide improves the quality of life and social inclusion of the visually disabled.

In Sub-Saharan African countries, health workers have worked at community level for several decades before and after the launch of PHC. CHWs have proved to be effective in delivering key maternal and child health interventions in primary and community health care [10] Further, they function as agents to promote and improve various aspects of societal health, playing an important role in the attainment of the Millennium Development Goals (MDGs) in various economic settings. Figure 2 shows that if community members are aware of how best to assist a person who is blind, this can facilitate social inclusion. Care of the disabled is an important component of community care.

Figure 2: This figure shows the incorrect way of pulling a blind person along and how members of the community can be taught to assist a person who is blind in a way that is comfortable, effective and allows the person walk with them and to retain their dignity.

Additionally, the importance of CHWs in achieving universal health coverage by addressing the gap in the health workforce has also been recognized with the launch of the One Million CHW Campaign, Sub-Saharan Africa's attempt to address the MDGs and the Post 2015 agenda. In as much as the priority is on the major killer diseases and the focus on mothers and children, CHW are to be a major component of human resources for health. Seven countries have started the CHW campaign:

Ghana, Burkina Faso, Kenya, Liberia, Nigeria, Tanzania, Uganda, and the survey conducted in 17 countries (Appendix 1). This campaign uses the International Labour Organization (ILO) definition of a CHW.

The roles and typology of CHW, however, vary according to the setting and different classifications of HRH and different definitions have, been used.

For the purpose of this study, the definition of a CHW who is involved in eye health care is contained in the box opposite.

An example of the latter role is apparent in many countries in Africa where CHWs have been instrumental in two very successful eye health interventions. They play a crucial role as CDDs in Onchocerciasis control through community engagement and reaching the unreached with Community-Directed Treatment with Ivermectin [11 – 19]. In addition, the role of CHWs in trachoma has not only been in Mass Drug Administration (MDA), but also through engagement with the multi-sectoral dimension beyond health in health promotion [20].

In these two largely vertical initiatives, there is evidence of CHWs' effectiveness. In some instances CDDs have been assigned additional tasks. There is however, very little research/documented information about the provision of other eye health tasks by CHWs as part their other duties, fulfilling a more integrated role. In Zambia, for example,

approximately 150 volunteer community eye workers were reported to be trained by NGOs in case finding and referral, but no other published information is available about their effectiveness[21]. Good performance, however, seems to be contingent on health system support that includes a mix of income/incentives, frequent supervision, continuous training, community involvement and strong co-ordination and communication between CHWs and health professionals, leading to increased credibility of CHWs.[7, 22]

Purpose of the study

The purpose of this study was thus to add to the limited information available about the roles in eye health of CHWs in Sub-Saharan Africa. Information about the context in which they practice, for example, health system facilitators and challenges to CHWs executing eye health tasks were collected. A secondary aim was to identify remaining knowledge gaps. This information is to provide a basis for the identification of:

1) eye health roles, tasks and core competencies of CHWs, and

2) opportunities that exist, and collaborations that can be forged, to include eye health into government and other CHW initiatives, to contribute to achieving the objectives of the World Health Organisation (WHO) Action Plan 2014 – 2019 for eye health, within the wider MDGs and post-MDG goals.

> *"Community health workers provide health education and referrals for a wide range of services, and provide support and assistance to communities, families and individuals with preventive health measures and gaining access to appropriate curative health and social services. They create a bridge between providers of health, social and community services and communities that may have difficulty in accessing these services."*
>
> **International Labour Organization (ILO)**

> *"Any member of the community based health workforce who provides eye health related services as part of other health related activities or in some instances provide only eye health related services and/or have been trained to do so".*
>
> **Study definition of CHW involved in eye care**

METHODS

Study design

A mixed-methods, cross-sectional study design was used.

Literature review

The scientific and grey literature was reviewed to identify information on the:

- experience of eye health at the community level.
- global developments and the time-line regarding CHWs.
- CHW resource materials.

Document analysis[1]

A number of documents were studied to understand their content and to interpret their deeper meanings as revealed by their style and coverage. These included the documents listed in Figure 3.
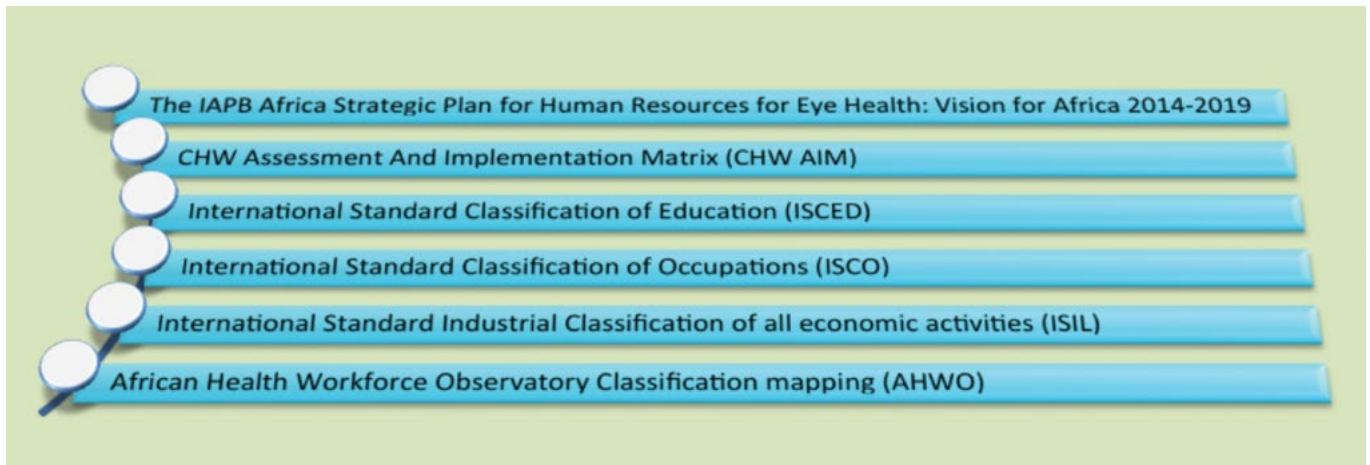

Figure 3: List of documents included in the document analysis.

This integrated analysis summarizes the CHW AIM, ISED, ISCO, ISIL, AHWO CM and analyzes these through discussion of commonalities and limitations (Appendix 4).

Case study in Ghana[2]

We selected a case study design because we wanted to explore in depth a 'how" question: "how eye health and its related community based programmes fit with each other and the wider community-based workforce?" Further, we wanted to study a contemporary set of data over which we had no control: Ghana was selected for a descriptive single case study design because its community-based programmes are representative of other countries in SSA. At the same time it provides a unique situation, in that it has adopted three community based health related programmes: two are eye health related: trachoma control and the community directed intervention strategy, and more recently the 1 million CHW initiative.

Interviews were conducted with the heads of the three community based programmes; also with the national eye health coordinator to explore the National Eye Health Programme's interface with the community based programmes. Targeted questions, focused directly on the case study topic, were used to guide the interviews.

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[1] Health Knowledge. Section 5: Data Collection Methods [Internet]. 2011 [cited 2014 Nov 30]. Available from:
http:// www.healthknowledge.org.uk/public-health-textbook/research- methods/1d-qualitative-methods/section5-data-collection- methods

[2] Case Study Research: Design and Methods Robert Yin http://www.slideshare.net/pavan7soni/case-study-research-by-robert-yin-2003

Situational Assessment survey

Information from the literature review and document analysis was used to develop the questions for the survey about CHW availability, cadre types/designation, numbers, characteristics and their various roles in eye health.

THE WHO HEALTH SYSTEM FRAMEWORK

SYSTEM BUILDING BLOCKS

- SERVICE DELIVERY
- HEALTH WORKFORCE
- INFORMATION
- MEDICAL PRODUCTS, VACCINES & TECHNOLOGIES
- FINANCING
- LEADERSHIP / GOVERNANCE

ACCESS
COVERAGE

QUALITY
SAFETY

OVERALL GOALS / OUTCOMES

- IMPROVED HEALTH (LEVEL AND EQUITY)
- RESPONSIVENESS
- SOCIAL AND FINANCIAL RISK PROTECTION
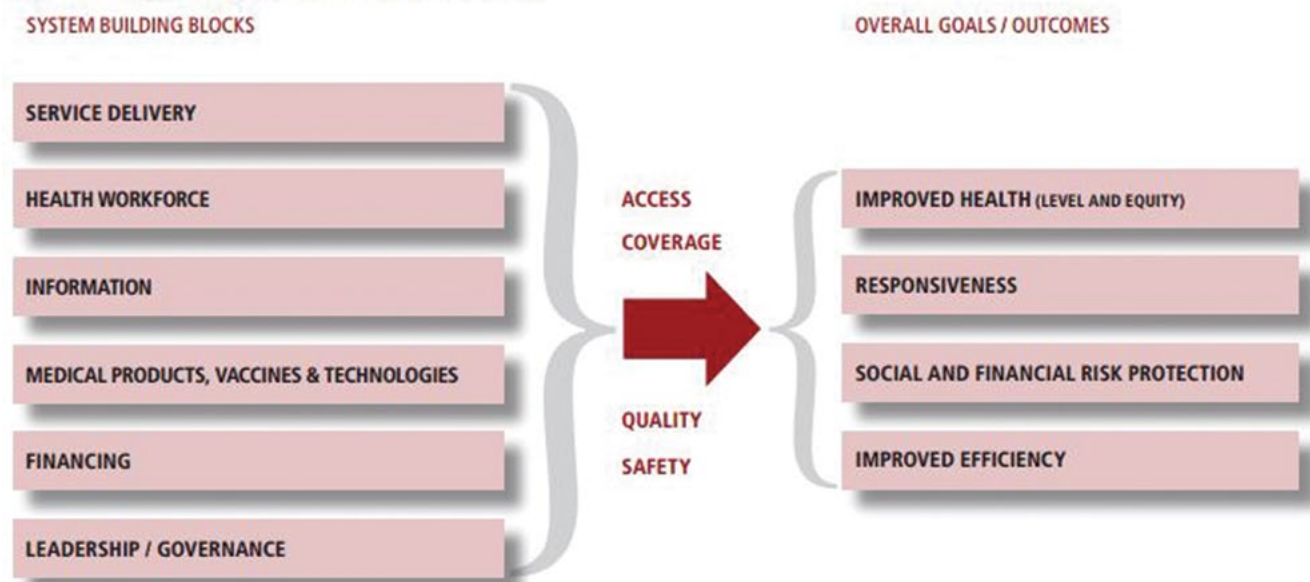- IMPROVED EFFICIENCY

Figure 4: The WHO health systems framework. World Health Organization. 2007. Everybody business: strengthening health systems to improve health outcomes: WHO's framework for action. ISBN 978 92 4 159607 7, http://www.who.int/healthsystems/strategy/everybodys_business.pdf

Still based on the building blocks of the WHO health systems framework (Figure 4), the survey form was organized into 10 different sections and designed to obtain information on the policy environment, knowledge of respondents about policies related to eye health and community health workers, availability of CHWs in the general health system, and in eye health, and the attributes of these CHWs in eye health in terms of their activities, training and follow-up.

Data collection

Data were collected between February–September 2014. Surveys were sent to:

- National Eye Care Programme Coordinators.
- International Non-Governmental Organisations concerned with eye health.
- Vision 2020 LINKS programme coordinators.

All 45 countries in Sub-Saharan Africa were targeted to receive surveys in order to obtain a comprehensive overview of the region. There were, however, no National Eye Care Programme (NECP) Coordinators in Comoros, Angola and Equatorial Guinea and efforts to obtain other potential sources of information proved unsuccessful.

An optimum response rate to the survey was sought by:

- using both a web-based and an excel spreadsheet-based survey form.
- providing a support document, clarifications as and when needed.
- persistent follow up by emails, telephone and Skype calls as appropriate.
- using English or French as appropriate as languages of communication blind data collection, and the survey form and support document were available in both languages. There were no Portuguese or Arabic versions of the survey form since language barrier was not perceived to be a hindrance to completion of the form, neither did any respondents raise this as an issue.

Data management and analysis

Data were entered into an excel spreadsheet. Where there were disparities in responses provided by more than one respondent for the same country, data from the NECP Coordinators were given precedence given that their official position implies access to more accurate information. For analysis and reporting of data:

- CHW cadres were classified into eight groups based on their typology.
- The WHO Health Systems Framework was used as the conceptual framework for analysis[21, 23, 24].

RESULTS

Literature review

The involvement of eye health at the community level

The literature was reviewed to determine how eye health has been involved at the community level to identify opportunities and challenges. Figure 5 shows the health system/ community interface of front level health facilities (FLHF) with the community and Table 1 shows the opportunities and challenges facing eye health at the community level.
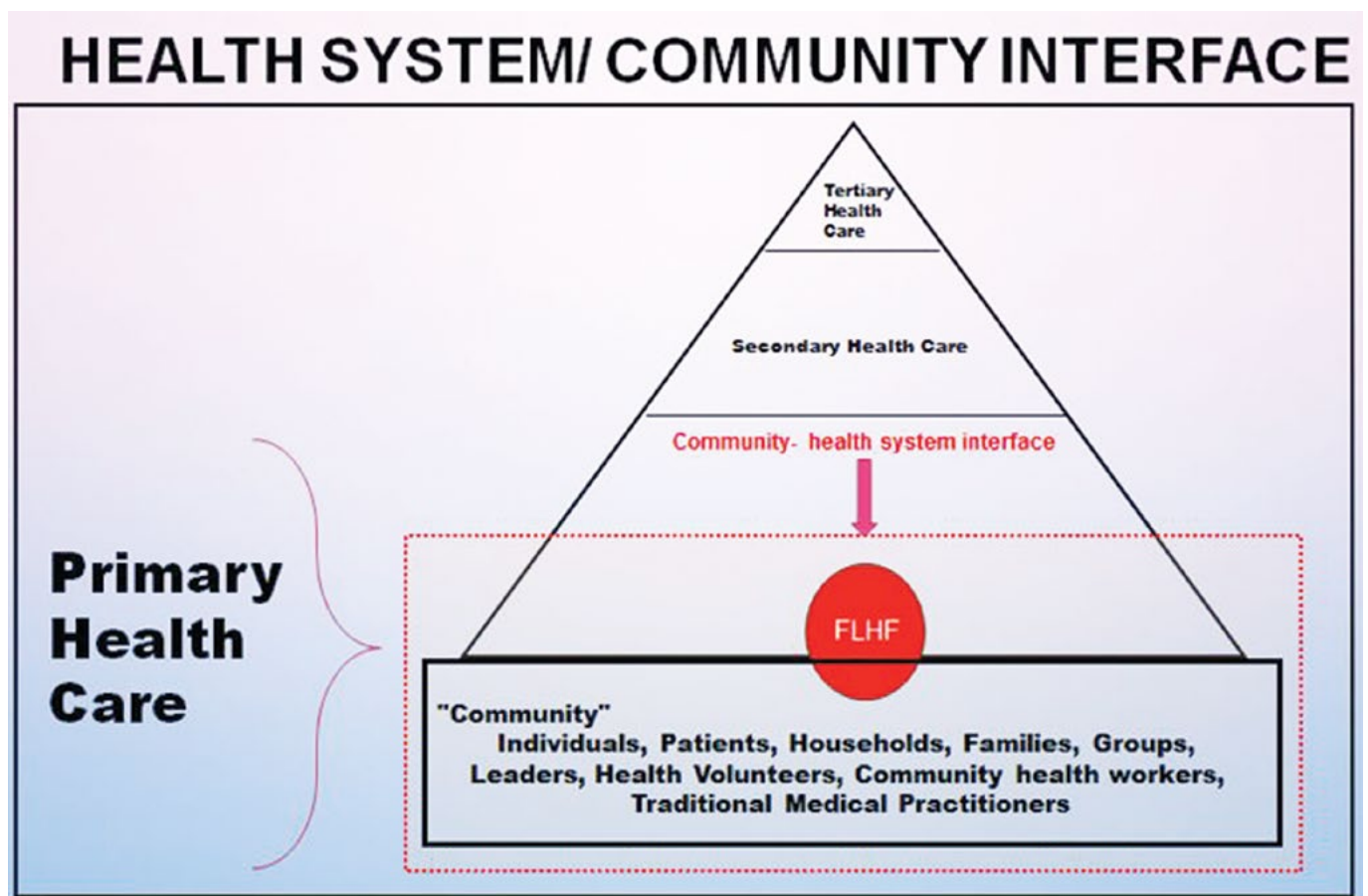

Figure 5: The primary care level includes the health system/ community interface of front level health facilities (FLHF) with the community.

Table 1: The lessons that can be learnt and opportunities and challenges that exist for eye health at the community level.

Areas	Wins by the eye health community	Opportunities	Challenges
CDD	The eye health community led a community based approach and supported distribution by community volunteers This has resulted, not only in a disease affecting vision, health and quality of life in general, being eliminated, and has also resulted in social and economic benefits to communities. It provided a model for other health conditions. It highlighted the importance of the partnership between the international, multilateral, government institutions and the NGDO Coordination Group, in research, collaboration and coordination on treatment strategies and policies, coalition building, capacity building of national health workforce and advocacy at the national and international level.	The inclusion of other eye health activities in the CDDs tasks.	• the ongoing provision of comprehensive eye care on demand, is more onerous than episodic CDD activities. • possibly overburdening CDDs. • remuneration.
Trachoma	The eye health community participated in a multi-sector approach, and not only is a blinding eye disease being eliminated, but it is also benefiting other aspects of health and life through the availability of water and sanitation. **Figure 6:** Access to water can help to combat NTDs.	Multi-sector collaboration with NCDs e.g. diabetes: eye health with nutrition and general diabetes services.	Associated with • coordination of different activities. • Including eye health in e.g. health promotion.
Key informants	Community volunteers identify children in the community with vision impairment and other eye health conditions, who are difficult to reach (e.g. remote areas, girls) and difficult to identify by other methods. This is done in campaign mode. **Figure 7:** Key informants motivate parents to bring their children for eye examinations.	Ongoing involvement of KIs in long-term identification and support to access treatment, follow up, link with education, rehabilitation services for VI.	Children, although identified with an eye problem, are not brought for surgery in a timely fashion and follow up is often poor.

Areas	Wins by the eye health community	Opportunities	Challenges
Vertical cataract, community based programs	Community services to Increase CSR Link programmes at the hospital and in the community, provide visits that are regular, "patient friendly," one stop service; with eye workers skilled enough to provide appropriate treatment and referral. **Figure 8:** Post health facility care - CHW, family member and patient.	CHWs can: • link community and health service. • provide support to access services. • provide follow up.	Integration is complex and needed at different levels from policy to programme activities.
Referral pathways	PHC workers, CHW's first line of referral have limited skills.	Innovative ways to improve access to specialist eye health services.	Which competencies and health systems support do PHC workers need to most effectively contribute.

The global development of CHWs and its time line

Global developments and the time-line regarding CHWs were tracked from the 1800s to the present day and the following challenges to be anticipated and addressed were identified: Poor selection process, Training, Remuneration, Supervision, integration into health systems, logistical support-supplies and medicines, *lack of acceptance by higher level health care workers,* agreement on global common definitions to allow common data collection and monitoring and facilitate research (Appendix 2).

An extensive list of CHW resource materials was identified (Appendix 3).

Document Analysis

Classification of CHWs

International classifications of education, occupation and economic activities are widely used in the public health service in SSA. These classifications were applied to CHWs and the challenges associated with classifying CHWs were identified and recommendations made (Appendix 4).

Two main recommendations arose from this analysis: First, to consider alternative approaches to obtain an optimal skill mix and accessibility of eye health services for example, a community based health workforce concept that, in addition to CHWs embraces groups such as community volunteers, multi-sectoral workers and patient/family groups, and second, to review international classification norms (Table 2) and apply reviewed norms to CHWs, possibly expanding CHW tasks, even though this group includes a wide range of members and is usually country and context specific.

Table 2: Recommendations for revisions to classification norms

Tasks to be reviewed	Examples of tasks to include in a revision
Tasks currently omitted, which could be included to facilitate universal access and people-centred care at community level.	*Improving access to care:* community case management e.g. supporting people to monitor post-operative visual acuity and recovery process to ensure early detection of any problems.
Tasks to be facilitated by using mobile health information technology.	*Expanding CHW tasks* to manage and monitor community based service delivery, other community health systems components, training, information management, behaviour change.
Tasks currently omitted, in which CHWs are currently involved.	*Expanding CHW tasks* to community case management, disability care and community directed distribution.
Tasks which demand active participation of the community and other programmes for mass drug administration/distribution, disability management strategies.	*Community volunteers* community health management committees, peer support groups.
Tasks to be accomplished in a multi-sectoral approach engaging with its social and environmental determinants.	Community sanitation by *multi-sector workers*.
Tasks associated with people-centredness and self-management paradigms should be emphasized (above those of disease and cure) and made explicit.	*Patient/family groups,* community engagement, empowerment, building relationships with families over time in the presence or absence of disease.

Figure 9: A community member tests her own vision.

CHW Assessment and Implementation Matrix (CHW AIM)

The CHW AIM framework has been used in a number of countries in SSA to assess current CHW programmes and guide future programme design. An understanding of the AIM programmatic areas, their functionality and best practice can facilitate making the most of and improving national CHW programmes as well as easing the integration of eye health into such programmes. The relevance to eye health of the CHW AIM was evaluated as a toolkit for improving CHW programmes and services (Appendix 5) Bearing in mind that the situation will be dynamic as a number of factors change over time, such as numbers available, basic education, population awareness, sophistication and the health services and the availability of new eye health technology, suggestions are made for its adaptation and application to eye health:

- Three additional programme areas should be included to the existing 14 areas, typology, distribution and gender;

- A wide range of eye health tasks is required at the community level and will need to be performed by a variety of workers who make up the community based health work force. As such, there may be an overlap of tasks. Recognition the self-medication is widely practised is required and relevant advocacy is required for wider inclusion of other existing community level workers – traditional practitioners, community pharmacists and patent medicine vendors.

Figure 10: A child wearing a traditional remedy.

- The application of the AIM programme areas is relevant to each worker at the community level (e.g. CHW, CH volunteers, workers in other sectors, and groups, organisations, and/or individuals based in the community) and they should follow the principles of the AIM.

For eye health to move forward on CHW initiatives in its most comprehensive form will require:

- The engagement of the national leaders of CHW initiatives to include and support eye health. The eye health constituency will need to do considerable work on the eye health aspects of the CHW AIM programme areas, draw up integration, advocacy and evidence based plans to show the effectiveness, cost effectiveness and what is best practice.

- The active *involvement of the community.* There are emerging areas such as expert patients , accountability of patients[3] in their care/person-centred care and a focus on the features of an urban community programme that will need to be included in programme designs.

- Alongside the development of the community health service and the CHW, the links/ coordination between the services and the *relationship between eye health personnel* (communication such as accepting referrals and giving feedback) and PHC personnel who may also receive referrals from CHWs and supervise them.

- Strengthening PHC and the health system, e.g. with appropriately trained and equipped health workers to which to refer and defined tasks with relevant guidelines, protocols for CHWs.

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[3] http://www.who.int/features/2014/ebola-team-survivor/en/

Case study: Ghana

The findings of the Ghana case study (Appendix 6) probably reflect to varying degrees some aspects of the current situation in many African countries. The eye health programme, national in structure, has largely been based on the VISION 2020 comprehensive services strategy. Its defined tasks stop at the front line health facility and community health officer level, i.e. the primary curative level. There is little or no engagement with the community levels below and into homes. Eye health is only mentioned as conjunctivitis the list of basic health interventions and services. It is not to be managed by CHW, only by the CHO, health centre and the district hospital. The elimination programmes manage any related eye health components and are independent of the general eye health programme.

In Ghana, community volunteers and their governance is passed on to the control of the community structure, including their remuneration. They are the bridge between the community and the health system. This study identified extensive activity at community level, prioritizing MDGs and NTDs. Three community based programmes evolved independently over different periods of time in Ghana. For disease elimination, first the onchocerciasis control programme, then the trachoma control programme, and most recently, the CHW initiative which prioritizes diseases of relevance to the MDG. These are based on globally developed and standardized programmes. Being largely vertical, these programmes have each developed within parallel structures from national through to community level and are not linked.

Conjunctivitis is the only eye health condition mentioned as in the list of basic health interventions and services, which should be managed by CHOs in health centers and the district hospitals rather than CHWs. The elimination programmes manage other related eye conditions and are independent of the general eye health programme.

An objective of the CHW initiative is to pool all community health workers into one cadre to address all community level tasks. However, the tasks being performed by CHWs in the elimination programmes are not yet part of the CHW initiative. Existing traditional structures have been coalesced into a community health management committee structure.

There appear to be opportunities to facilitate eye health to achieve universal health coverage and a people-centred focus. The continuing need for another layer of workers at the community level became apparent. These workers are required to do support tasks, absolutely essential to health, but lying outside the traditional remit of the more clinically oriented tasks of health workers.

First, integrating eye health into other health programs, such as immunization and into other initiatives that go into households provides an opportunity to identify ocular/vision abnormalities and other eye health needs amongst individuals, families and communities, during visits to community-based facilities and home visits.

Second, a multi-sectoral approach to eye health could be adopted, engaging a basket of workers: teachers for school health; community based rehabilitation workers for disability; agriculture workers for farms and nutrition; environmental workers for sanitation and community volunteers for health. This has the added advantage of health workers engaging with the social and environmental determinants of eye health.

Third, engagement with other programmes for activities such as mass drug administration/distribution, disability management strategies and the community e.g. community health management committees, community volunteers, directed by health workers for community animation and mobilization, peer support groups, participatory women's groups.

Fourth, by acknowledging that mothers of children, carers for HIV/AIDs, people involved in lifetime self-management of chronic diseases etc. are also health workers[25].

Figure 11: Mothers notice signs before anyone else.

This demands a paradigm shift and considerable amount of work to view eye health through this new lens, to repackage its interventions and tasks and to mould the human resource (HR) development, primarily at the community level, accordingly. This cannot, however, be addressed in isolation and would require responsive changes in HR structures at the other levels in the health system and in the national HR framework, policies and practice.

The challenge would be the development framework to integrate all of these workers. This could be facilitated by 1) one authority, one action framework, one monitoring and evaluation framework e.g. A national health management structure, supply chain management structure 2) Full engagement of the political system 3) Public private partnerships.

This could be facilitated by Health Management Information system using mobile health information technology to manage and monitor community based service delivery and other components of the community health system, training and information management, and behaviour change.

Challenges

A lack of engagement with the 1 million CHW campaign, both globally and in Ghana, presents a missed opportunity to influence health at community level and the holistic approach of universal health coverage, people centeredness and multi-sectoral health.

There is a lack of widely accepted definitions of the competencies, roles and responsibilities across the wide range of workers, both health and non-health.

Also, as tasks increase in complexity and sophistication, greater degrees of literacy are required, which is likely to increase the demand and need for remuneration is increasing. In some countries, governments are providing salaries for CHWs. In the classic CDD approach, remuneration for volunteers is in the premise of the community and is used as an indication of the community leading the process. However, embedding community directedness is a lengthy process and could prolong time-bound elimination programmes. Remuneration and incentives remain challenging.

Urbanisation is rising rapidly in Sub Saharan Africa and is estimated to be 50% by 2030.[4] In Accra for instance, community level elimination programmes face challenges of estimating the size of the target population in the highly mobile, urban population. Community engagement and ensuring high population coverage become for more challenging. Research is being conducted on drug distribution in urban areas.

Figure 12: Health in agriculture – Women grow and sell orange-fleshed sweet potatoes high in Vitamin A.

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[4] Urbanisation in Africa – Mthuli Ncube, Chief Economist and Vice President of the African Development Bank, December 2012.

Situational Assessment Survey – results and discussion

A total of 36 responses were received from 51% (23/45) of the countries (Table 1). Responses from countries in the five sub-regions ranged from 13% (1/8) responses from countries in Central Africa to 100% (5/5) responses from Anglophone West Africa. In contrast, only 40% (4/10) of countries in Francophone West Africa responded. Similar numbers of East and Southern African countries responded: 63% (5/8) and 57% (8/14) respectively. Five Francophone and one Lusophone country responded, the remainder had English as one of the official languages.

Respondents included 16 NGOs, 3 V2020 LINKS and 10 NECP Coordinators, other respondents were mostly from national health programmes. Of the 23 country responses, 15 provided information about the situation at the national level, 5 from the sub-national (district, province, state) and 3 from a combination of both national and sub-national levels.

Leadership and Governance

The first survey question enquired about the existence of policies for: primary health care (PHC), human resources for health (HRH) and community health workers (CHW), and whether eye health (EH) was included in these policies. Respondents stated that most countries (87%-91%) have PHC, HRH and CHW polices and that eye health was included in most PHC and HRH policies (81%-90% respectively). Eye health was, however, reported to be included in fewer (55%) CHW policies (Table 3).

Table 3 further shows that while respondents from only three countries reported not knowing if a CHW AIM assessment and improvement matrix (USAID Healthcare Improvement) had been undertaken, 13 countries (57%) reported such an assessment had been undertaken, but only 10 (43%) were confirmed by the 1 Million Campaign.

Table 3: Policies including eye health and CHW Assessment

	Region / Country (number of respondents)	Policies			CHW Assessment	CHW survey confirmed and/or programme started[5]
		PHC	HRH	CHW		
A	**EAST AFRICA**					
1	Ethiopia	EH	EH		dn	yes
2	Kenya (2)	EH	EH	EH	yes	yes
3	South Sudan		no		yes	yes
4	Tanzania (2)	EH		EH	dn	yes
5	Uganda	EH	EH		no	yes
B	**CENTRAL AFRICA**					
1	Cameroon (2)		EH	no	no	no
C	**SOUTHERN AFRICA**					
1	Botswana	EH	EH	no	no	no
2	Lesotho	EH	EH	EH	yes	no
3	Madagascar	EH			no	no
4	Malawi (2)	EH	EH	EH	yes	yes
5	Mozambique (2)	EH	EH	EH	yes	yes
6	Seychelles	EH	EH		no	no
7	South Africa (4)		EH		yes	no
8	Zambia (2)	EH	EH	EH	yes	no

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[5] See Appendix 1.

Region / Country (number of respondents)	Policies			CHW Assessment	CHW survey confirmed and/or programme started[5]
	PHC	**HRH**	**CHW**		
D **ANGLOPHONE WEST AFRICA**					
1 Ghana	dn	EH		dn	yes
2 Liberia	EH			yes	yes
3 Nigeria (5)	EH	EH	EH	no	yes
4 Sierra Leone	EH	EH	EH	yes	no
5 The Gambia	No	no	no	yes	no
E **FRANCOPHONE WEST AFRICA**					
1 Benin	EH	EH	EH	yes	no
2 Mali	EH	EH	EH	no	yes
3 Senegal		EH		yes	yes
4 Togo				yes	no
Total countries with policies/assessment	**21 (91%)**	**20 (87%)**	**20 (87%)**	**13 (57%)**	
Total policies that include eye health	**17 (81%)**	**18 (90%)**	**11 (55%)**		

Legend:

	Country has policy	**EH**	Policy includes eye health	**no**	Country does not have policy	**dn**	Respondent did not know

Human Resources: CHW typology/roles

Respondents identified a total of 59 CHW different names for CHWs, 55 of which were identified as being involved in some form of eye care provision. The CHW cadres were classified into 8 groups based on their typology (Table 4).

Table 4: Number of countries that report cadres working at the community level and which provide eye health care

Groups	CHW cadres	Number of countries reporting cadres working at community level	Number of countries reporting cadres provide eye health
DG – DISABILITY GROUP	CBRW – Community-Based Rehabilitation Workers	12	7
SVP – SPECIFIC VERTICAL EYE HEALTH PROGRAMMES	CDD – Community Directed Distributors	13	13
	TW – trachoma worker	4	3
	ACDC – Agent Communautaire Depisteurs de Cataracte	1	1
	SY – Specialistes des yeux	1	1
	PEW – Primary Eye Worker	1	1
	FOE – Friends of the Eye	1	1
	OL – Optical Leads	2	1

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[5] See Appendix 1.

Groups	CHW cadres	Number of countries reporting cadres working at community level	Number of countries reporting cadres provide eye health
THC – TRADITIONAL HEALTH CARE	TBA – Traditional Birth Attendants	20	13
	TP – Traditional Practitioners	15	11
	TC – Traditional Communicators	3	1
HG – HEALTH GROUPS	CHEW – Community Health Extension Workers	10	8
	CHN – Community Health Nurses	7	5
	FLHW – Front line Health Workers	6	3
	PHCW – Primary Health Care workers	1	1
	RHCW – Rural Health Care Workers	1	1
	IECWs – Integrated Eye Care Workers	1	1
	SHN – School Health Nurses	1	1
	Mat – Matronne (midwife)	1	1
	PMV – Patent Medicine Vendors	8	4
NHG – NON-HEALTH GROUPS	ST – School Teachers	20	16
	DU – Drivers' Union	1	1
	CP – Children's Parliament	1	1
	PCE – Peer Educators and Counselors	7	4
	MM – Mentor Mothers	3	1
	HMV – Home Visitors	2	2
COMMUNITY GROUPS – generalist	CHW – Community Health Workers	2	2
	CA – Community Assistants	3	2
	CHA – Community Health Agents	1	1
	CHASS – Community Health Assistants	1	1
	HSA – Health Surveillance Assistants	1	1
	VHW – Village Health Workers	13	11
	RC – Relais Communautaire	3	3
	ASC – Agent de Sante Communautaire	3	3
	HG/FBV – Humanitarian groups/ Faith Based Volunteers	15	12
	HV – Health Volunteer	8	6
	CBV – Community-Based Volunteers	1	1
	GCHV – general community Health Volunteers	1	0
	CHV – Community Health Volunteers	1	1
	HP – Health Promoters	7	3
	HA – Health Aids	2	1
	NW – Nutrition Workers	3	1
	HMV – Home Visitors	2	2
	HDA – Health Development Armies	1	1
	CDW – Community Development Workers	1	1
COMMUNITY GROUPS – specialist	VAC – Vaccinators	7	4
	HBCG/CHBC – Home-based Care Givers for HIV/ Community Home-Based Care	1	0

Groups	CHW cadres	Number of countries reporting cadres working at community level	Number of countries reporting cadres provide eye health
ORGANISATIONS	RO – Religious Organisations	1	1
	NGOs – Non-Governmental Organisations eg Lion's Club	1	1
GOVERNANCE GROUPS	SLA – Staff of Local Authorities	1	1
	SWUC – Staff of Water Utility Companies	1	1
	CLTSA – Community Lead Total Sanitation Animators	1	0
	WASHCo – Water Sanitation and Hygiene Committee	1	0
	CL – Church leaders	2	1
	CML – Community Leaders	4	3
	WGL – Women Group Leaders	1	1
	VHC – Village Health Committees	1	1
	VHT – Village Health Teams	1	1
	MCG – Membres comite de gestion des centre de sante	1	1

Many of the groups were reported to have clinical equipment and supplies. There were few reports on health information systems, about e.g. coverage, numbers and gender. Few groups were reported to receive remuneration.

Summary and limitations of the situational analysis

Responses to this situational analysis were received from about half the countries in Sub-Saharan Africa, predominantly from Anglophone West Africa, East and Southern African countries, and only one Central Africa country provided information. The findings cannot thus be generalised to all countries in Africa, but do, however, draw attention to where more information is required.

The survey presumed that eye health focused personnel could provide information on aspects outside their immediate responsibilities. For example, all provided information on the policies, but fewer provided information on the number, coverage, or gender of CHWs.

The survey provided information about the health system in which CHWs practice. Eye health was reported to be included in the majority of human resources and primary health care policies, but less so in relation to community health, being included in just over half of community health care policies. Details of the extent to which eye health is included in the policies, and details of which CHW assessments conducted, however, needs further investigation.

The respondents identified an unexpectedly high number of health providers at community level (59) that they considered to make up the CHW cadre in Sub-Saharan Africa. This highlighted the existing nebulous typology and roles of the large variety of individuals, groups and organisations that are based in the community and that are involved in providing health care. The main functions of these workers were in organizations, governance groups, community groups, specific vertical programmes, disability, health, traditional health and non-health fields. Their tasks they were reported to be concerned with health promotion, primary and rehabilitative care, and surveillance, diagnosis, first aid, treatment, referral, screening and identification of cases.

Further, respondents reported that most (55) were involved to some extent in eye health. The details of the eye care tasks they accomplish were beyond the scope of this study. There is thus still a knowledge gap about details about the eye health tasks that CHW can and do accomplish.

The information was collected from the eye health programme staff and provides insight into their perspectives of CHW. It is conceivable that the information they provided may reflect planning information and thus be biased towards being more theoretically based rather than from direct experience. Further, it is unlikely that documentation of evaluations of many of these programs exist to inform the eye health staff. Thus their responses may reflect an overly optimistic view about both the involvement of CHWS in eye health and also the health system support they enjoy.

This situation analysis, the first for Community Eye Health in Africa, sets out a number of challenges for the eye health sector, not the least of which is where do we stand in relation to the current prioritisation given to CHWs by a growing number of Ministries of Health and international partners through the One Million CHW Campaign. It is absolutely essential that eye health participates in and aligns with global and national discussions on community health and the workforce to address it. It is hoped that this study by highlighting many unanswered questions, will stimulate the interest of health, development and disability stakeholders and especially the eye health and research groups.

Figure 13: A CHW putting in eye drops.

DISCUSSION: How can CHWs improve accessibility to eye health?

A number of sources were used to inform the findings of this report: information from a literature review of eye health related activities at the community level and of the evolution of CHWs, a document analysis of a number of CHW related documents, a case study of eye health in Ghana and a situational assessment of CHW in Sub-Saharan Africa. A recent review of CHW motivation, payment and incentives recommended "…having two broader categories – (1) CHWs that are trained to be part of the formal work force and paid according and (2) CHWs that receive minimal training and offer limited hours according to the context"[22]

We thus suggest that an effective, community based health workforce, in Sub-Saharan Africa, would likely consist of four different layers as indicated in Figure 14.

Patients, carers, families: self-care, self-monitoring, self-screening and self-management, behaviour change.

Community volunteers: non clinical "support tasks" within communities, community mobilisation, engagement and empowerment, for tasks requiring active participation of the community and other programmes as a bridge between community and health system e.g. for mass drug administration/ distribution, disability management strategies (multi sectoral: teachers, CBR, agriculture, environmental workers)

Community health workers: Activities from promotion and prevention through to disability, with limited curative role (identification of abnormalities and referral) relating to conditions causing visual disability and ocular morbidity, community case management (monitoring and post treatment follow up) support and assistance to navigate the health and social services system (uptake of services/referrals) and building relationships with families over time in the presence or absence of disease

Facility based health staff: communicate and develop relationships, for second opinions and referrals, feedback, for support and to provide credibility (Primary health workers, Community health officers, Specialist eye health personnel etc)

Figure 14: A model of a community based health workforce and the activities performed by the people at the different layers.

Recommendations for increasing access to eye health at the community level

Findings	Recommendations
Engagement/Integration of eye health into CHW campaigns at the global /national level	
The CHW campaign is advocating for one national strategy to overcome the clear fragmentation of effort; one lead authority, respected by all partners; and one national monitoring and accountability platform to ensure CHW are integrated into the health system.	• Engagement and participation of eye health in the 1 million CHW campaign is needed as soon as possible, to include and support eye health as a part of the basic package. • Advocacy is required for eye health to be included by national CHW campaign from the beginning of the process and added/integrated for those which have already started.(Appendices 1 to 3). • Eye health coordinators and others could contribute and engagement could be facilitated by developing a community health engagement tool for (Appendix 7).
Eye health is often seen as a niche, vertical programme and a low priority by governments and health stakeholders.	• Eye health stakeholders need to hand eye health over to those responsible for home and community health i.e. the CHW initiatives, as a doable and integral part of their domain. • Develop a policy brief on delivering eye health at the community level. • Collaborate/advocate with other areas not included at the community level such as oral health, mental health, NCDs to, for example, review the occupational classification of CHW (Appendix 4).
The CHW AIM is a survey that can be used to assess current CHW programmes and guide future programme design and integration.	• The CHW AIM programme areas are relevant to eye health, and the best practice principles of AIM should be followed, this may facilitate the inclusion of eye health. (Appendix 5). • The eye health constituency will need to do considerable work on the eye health aspects of the CHW AIM programme areas, e.g. draw up integration, advocacy plans and conduct research to provide the evidence to show the effectiveness, cost effectiveness and what is best practice.
Engagement/Integration of eye health into CHW campaigns at the national/district/local level	
Uncertainty about the extent to which eye health is included in country's CHW, HRH and PHC policies.	As countries review their CHW, HRH and PHC policies, eye health stakeholders need to ensure there is an eye health component included. A recent study in Zambia concluded, however, that even though policy guidelines for integrating CHWs in the health system were implemented, this may not be sufficient to guarantee successful integration at the local or district level, and advised that integration into the district health governance system will be required to ensure effective functioning [8, 26].
Opportunities were identified for eye health to be integrated in / engaged with other activities at the community level.	Identify opportunities for eye health to integrate/engage with: • any initiatives that go into households, and target individuals, families and communities. • health programs at community-based facilities and communities, to identify ocular/ vision abnormalities and other eye health needs. • disability management strategies and activities at community level. • mass item/drug administration/distribution and procurement systems which ensure delivery at community level. • community health governance e.g. management committees. • emerging areas such as patient association/support groups, expert patient groups, accountability of patients in their care.
CHW initiatives do mention multi-sectoral approach which bridge the health and non health sectors.	• Engagement with global and national initiatives should particularly be around the principle that what is required is a community based multi-sectoral workforce of which the CHW cadre is one cadre. • Identify opportunities for eye health to take advantage of bridging activities at local and national level which require multi-sectoral engagement such as trachoma control and water and sanitation activities, driving and vision.

Findings	Recommendations
Research questions arose related to how eye health should be integrated, and what the impact would be.	• Intervention based research is required to determine how eye health can most effectively be integrated into PHC. The effect of adding eye health to the tasks of CHW should also be evaluated, such as the influence on universal health coverage and whether this detracts from main tasks of CHW. • Evidence from CDD study that adding on tasks did not decrease the effectiveness of the CDDs [11].
The community based health workforce	
A large variety of individuals, groups and organisations are based in the community and are involved in some aspects of health care. Fragmentation, duplication of tasks and support structures exist. Countries are approaching this in different ways e.g. Ghana has CHW integrated into the salaried HRH and a separate (not salaried by government) community volunteers, Nigeria is proposing a new salaried VHW subsystem in addition to a salaried CHW who are mainly facility based. Countries may, like Ghana have a CHW structure though eye health activities have not yet been included in their tasks.	Alternative Community health Workforce models should be considered: • In addition to CHWs, different groups (e.g. community volunteers, patient/family/carers, multi-sectoral workers) should be trained and equipped to do support tasks absolutely essential to health, but that lie outside the traditional list of health workers' more clinically oriented tasks.[22] • A recognition that there may be some overlap in tasks and how these can be managed in policy and practice. • Advocacy for wider recognition and inclusion of other existing community level health workers e.g. traditional practitioners, community pharmacists and patent medicine vendors. **Figure 15:** Advocacy at the community level.
The typology is many and varied and roles of community health providers are nebulous. The AHWO harmonization process based on internationally standardized classification systems (ISCO-88, ISCED, ISIC) ensures different countries can use various labels for the same type of health care cadre.	• Whatever the health worker cadre at community level, apply the international classifications to ensure consistency/ harmonisation. • Given the changes that will occur over time in disease patterns and health priorities, demography, development of health services including human resources for health, environmental and health system changes, economic development, advocacy will be needed for a review of the international classifications of CHW in response to these changes.

Findings	Recommendations
Eye health tasks and interventions required at the community level	
The CHW campaign does not yet have a globally agreed upon set of competencies for CHWs. There is a need for the definition of eye health competencies for each of the tasks CHWs undertake, while acknowledging these tasks vary significantly within and across countries, also for developing training processes.	Develop recommendations on the: • core interventions that, at a minimum, should be provided at community level. • eye health related "soft" skills that are needed. • skill-mix of workers who can provide these - repackage eye health interventions and tasks to suit community based health workforce concept. • support this with the submission of eye health competencies for each member of the community based health workforce. Global bodies such as the WHO, IAPB, CHWA International Centre for eye health (ICEH) and CHW training providers/1 million Campaign could collaborate; using a consultative process and available evidence to provide initial recommendations and validate competencies. Content can then be updated as more information becomes available from research/evaluation about for example, the eye health competencies to include in initial and ongoing training, in supportive supervision, referrals and feedback, and incentives, such as opportunities for advancement.
Global CHW competencies may, however, omit eye health content areas if these are considered as not a priority, niche, locally irrelevant or not core to CHW efforts.	• Map the current content of training and range of CHW eye health tasks to better understand the range of CHW eye health roles and responsibilities. • Develop a policy brief: eye health competencies required at the community level, to use for advocacy.
CHW initiatives are meant to specifically address issues of universal health coverage, and sustainability development goals but most don't address disability at community level.	• For eye health programmes, health services are by policy linked to programmes for visual disability including inclusive education for children, low vision and rehabilitation services. Eye health services provide the opportunity to lead on the link of disability in CHW initiatives.
Core Competencies of CHW and eye health	
Eye health in the competencies/ task list of CHWs. A CHW programme by nature of its tasks is responsible to three structures, the health system, the community, and the political structure within which it functions that covers not only health, but the social determinants of health.	Even though CHWs are usually country and context specific, review and potentially expand core CHW roles and tasks listed by international classification norms and adapt to eye health needs: • improve access to care: community case management e.g. supporting people to monitor post-operative visual acuity and recovery process to ensure early detection of any problems. • use IT to manage and monitor community based service delivery, other community health systems components, e.g. training, information management, behaviour change in eye health. • community disability care and community directed distribution of eye health items. • focus on an urban community programme facing challenges of estimating a database of a highly mobile urban population, of community engagement and population coverage.
Community based programs, e.g. CDD for onchoceriasis have been very successful. Trachoma – demonstrates a multi sector approach.	Define roles as communicator, collaborator/team worker, leader, innovator and manager, community practitioner and health advocate. • Health activities through community animation and mobilization, community volunteers, peer support groups, participatory women's groups directed by health workers. • Pass on community volunteers and their governance to the control of the community structure, including their remuneration. • Engage with other non-health sectors.

Findings	Recommendations
Recognition of community home based activities and role of patient and family in home.	Define: • CHW role in continuous comprehensive care (promotive, preventive, curative, rehabilitative tasks, pre-, peri- and post- contact with health facilities). • home-based eye health tasks/competencies, and competencies for CHW to support these activities.
Relationship of CHW and Front line facility based health worker/PHCW	
Evidence that PHCW, the usual first line of referral have limited eye health competencies.	Collect evidence to ensure effective referral pathways, develop competencies for the rest of the eye team as well, or alternatives e.g. direct referral to specialist eye health personnel.
Limited linkage between PHCW, CHW and eye health.	Establish links/co-ordination between the community health service and the CHW and with eye health personnel to strengthen referral and communication pathways receive referrals, provide feedback and supervise.
Eye health coordinators may have based responses to situational assessment on planning information.	Further case studies to determine what works or does not work. How best to include eye health in community based activities Ghana case study useful to triangulate-few links between eye health (mostly vertical programs) and community programs.
Training of the community based workforce and specifically the CHW and eye health	
CHW trainers need to have the competence to transfer in terms of the range and of content; knowledge, skills and attitude, pedagogy and adult teaching techniques. The CHW training content currently does not always reflect the potential role of CHW in eye health.	• CHW training providers should share their training with the global health community so that ministries of health, NGOs, and CBOs can identify training gaps and differences or redundancies in training pedagogy, content areas, and content.[6] • Map the current content of training and range of CHW eye health tasks to better understand the range of CHW eye health roles and responsibilities and pass the information to eye health as well as community health worker trainers. • In this way eye health training content that should exist in pre-service training programs, refresher courses and additional professional development can be determined to enhance their training and supportive supervision roles.

Figure 16: An ophthalmic clinical officer observes a community health worker examining a patient's eyes.

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[6] The Current State of CHW Training Programs in Sub-Saharan Africa and South Asia.

Findings	Recommendations
Recommendations for training methods	• Coordinate training programme implementation and curricula among training providers, including NGOs, civil society organizations, and governments. • CHW training curricula should be made more interactive and further should be continuously improved through incorporating CHW feedback and the results of regular competency monitoring through the use of pre-tests, post-tests, and self-assessments.[7]
Recommendations for training content	• CHW training providers should share their training with the global health community so that ministries of health, NGOs, and CBOs can identify training gaps and differences or redundancies in training pedagogy, content areas, and content. In this way eye health training content that should exist in pre-service training programs, refresher courses and additional professional development can be determined.

Suggestions for immediate activities for the IAPB

• Engage WHO more fully in strengthening the CHW level.

• Identify opportunities for partnerships and collaboration with global initiatives such as the 1 million campaign, Global Health Workforce Alliance (GHWA) to add eye health to their agendas and programmes.

  • Establish a common CHW definition and set of eye health tasks, that is aligned with the CHW definition created by the ILO and other international classifications.[8]

  • Develop a set of core eye health competencies for all CHW tasks (existing and recommended) and, roles and responsibilities across the wide range of workers, health and non-health. Collaborate with WHO-AFRO to validate a competency framework as the basis for eye health components in the CHW range of tasks.

• Collaboration on the training process i.e. ICEH for example.

  • Develop evidence-based guidelines regarding core CHW tasks, with relevant guidelines, protocols, algorithms.

  • Develop the knowledge, skills and attitudes, learning outcomes and content, and recommend training methodologies practical, interactive didactic and practical sessions.

• Define the health system support needed to deliver the competencies. For example CHWs can benefit by the differing aspects of supportive supervision that can be provided by the community (e.g. village leader), senior CHW, specialist eye health provider.

• Encourage IAPB members to adopt the proposed CHW framework, materials, ethos.

What next?

The findings indicated a need for the eye health and global health community to consider a number of issues, on an international and national level in order to enable CHWs to function most effectively. These include:

• How best to build on the current successes of eye health at the community level and CHW initiatives to increase universal eye health coverage.

• Which best practice or evidence-based guidance regarding eye health tasks and competencies, and operational/implementation aspects should be included in training programs

• How to promote uptake and adaption of these recommendations by countries to scale- up the eye health component CHW training programs and, ultimately, strengthen health systems.

• Consideration of alternative models and strategies to increase access to eye health at the community level

• Research and evaluations required to fill in existing gaps in knowledge.[22]

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[7] ibid.

[8] Foster, Allison Annette, Kate Tulenko, and Edward Broughton. *Community health workers and universal health coverage: Monitoring and accountability platform for national governments and global partners in developing, implementing, and managing CHW programs.* Geneva: Global Health Workforce Alliance, October 2013. http://www.who.int/workforcealliance/knowledge/resources/M_A_CHWs.pdf?ua=1

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