Significant progress has been achieved over the past three decades in the promotion and realisation of the rights and wellbeing of children globally and in Africa. The adoption of the Convention on the Rights of the Child and the introduction of the African Charter on the Rights and Welfare of the Child (an Africa-specific child rights instrument) were particularly important legislative milestones that have led to greater accountability to children. These were followed by global declarations and initiatives, such as the World Fit For Children and the Millennium Development Goals (MDGs) amongst others, which have led to greater resources and commitments towards children.

Health is one of the most important components of children’s wellbeing. Poor child health and the failure to provide adequate quality health services to children has serious consequences on their survival and leads to poor cognitive and physical development (ACPF 2011). Therefore, children’s health is fundamental in all child rights instruments and children are entitled to the highest attainable standard of health, which implicitly includes eye health.

Child eye health in particular is an important aspect of children’s development, as most of a child’s early learning is developed through vision. However, children’s eye health is frequently neglected in child health policies and programmes despite its immense impact on an individual child’s development and the significant consequences on families and communities. Addressing appropriate preventive and curative responses is a priority in Africa, and a greater investment in this specific area of health would enable more children to reach their full human potential.
WHAT IS THE EXTENT OF THE PROBLEM OF CHILD EYE HEALTH AND ITS CAUSES IN AFRICA?

Despite a general improvement in maternal and child health in Africa as a result of greater access to health services – specifically coverage of immunisation and vitamin A supplementation – hundreds of thousands of children in Africa continue to lose their sight as a result of preventable causes. For example, in 2010, the estimated number of blind children in Africa was 419,000 (Gilbert and Quinn 2011). This figure represents the extreme presentation of visual impairment and is not indicative of the far greater numbers of children suffering from lesser forms of visual impairment, but which still impact on children’s development (ibid.).

An estimated 50 per cent of child eye health related problems are preventable through vitamin supplementation and measles immunisation programmes, education and awareness programmes or curative interventions such as refractive error correction and surgery to preserve or restore sight (Solarsh and Hofman 2006). Children under-five are most at risk of losing sight as a result of eye health problems due to their susceptibility to diseases common during early childhood. Therefore, children who are affected by blindness at a young age will experience a greater number of blind-years compared to adults, with associated greater economic, social and development costs.

In most African countries, as in other low income regions, the most common causes of child blindness and visual impairment include corneal scarring from measles; vitamin A deficiency; trachoma; river blindness and the use of harmful traditional eye remedies, and swelling of the child’s eyelids due to infection (ophthalmianeonatorum) (Gilbert and Muhit 2008).

Trachoma is also a significant cause of poor child health in many parts of Africa. A study in Nigeria, for example, found a trachoma prevalence rate of 43 per cent amongst children (Abdou et al 2006). Children between the ages of 3-5 years were strongly associated with infection, in contrast to younger children between 1 and 2 years old. In a similar study in rural locality in Ethiopia, 72 per cent of children between 3-9 years had active trachoma and 20 per cent of the children aged under nine had corneal scarring (Cumberland, Hailu and Todd 2005). Washing, a clean environment and hygienic disposal of excrement were identified as important factors in minimising risk of infection.

River blindness or onchocerciasis, another cause of visual impairment, is prevalent in a number of countries across Africa, from Senegal in the West to Ethiopia in the East, and southwards to Malawi. Almost all people who are blind from onchocerciasis are found in Africa.

A high proportion of people in Africa who suffer from eye problems use traditional eye medicine, some of which may delay treatment of serious injury or disease and may worsen the condition of the eyes (Lewallen and Courtright 2001; Mselle 1998). Furthermore, in many African contexts, bewitchment is commonly believed to be the cause of a child’s blindness. Families in which a child with a disability (including loss of sight) resides are often ostracised and child carers are themselves blamed for the child’s condition (Henderson 2011; Lwanga-Ntale 2003). Mothers in particular are often blamed for neglecting certain ritual obligations during pregnancy, which are believed to lead to various afflictions, including blindness. The traditional beliefs have significant implications for the design of education and awareness programmes.

Despite the huge magnitude of child eye health problems, service facilities – especially for paediatric eye care and treatment – are unacceptably low in most countries of Africa. For example, although WHO recommends one paediatric ophthalmic centre per ten million population, 37 countries across sub-Saharan Africa with a collective population of about 300 million do not have any such centres at all. This is a clear indication of how the sub region is grossly under-catered for in terms of eye care and treatment services. This is further compounded by severe shortages of qualified human resources. Context relevant recommendation of WHO for Africa suggests at least two ophthalmologists per million population, 37 countries across sub-Saharan Africa with a collective population of about 300 million do not have any such centres at all. This is a clear indication of how the sub region is grossly under-catered for in terms of eye care and treatment services. This is further compounded by severe shortages of qualified human resources. Context relevant recommendation of WHO for Africa suggests at least two ophthalmologists per million population and about four mid-level workers per million population. But most countries did not meet this minimum standard and few countries have reached the threshold. This has compelled the
limited service facilities available to operate under severe a shortage of skilled professionals. All these factors have contributed to the extreme shortage of services for the provision of eye care in Africa.

WHAT CAN BE DONE TO IMPROVE CHILD EYE HEALTH?

Ensuring children’s access to adequate eye health care and treatment requires multifaceted interventions, including addressing the severe shortage of adequately trained staff, at the level of both specialised staff and integrated community health; achieving universal immunisation against measles; prioritising the prevention and treatment of endemic tropical diseases; and, ensuring that facilities are in place for the correction of refractive errors.

There are initiatives at various levels that aim at promoting access to better eye care and treatment services. The most significant is VISION 2020: The Right to Sight. This global initiative of World Health Organisation (WHO) and the International Agency for the Prevention of Blindness (IAPB) was launched in 1999 to eliminate preventable blindness and visual impairment by the year 2020. It has been instrumental in leveraging global and national efforts to prevent avoidable blindness and visual impairment through integrating comprehensive and high-quality eye care services into national health care systems. But these initiatives are not enough to bring about significant change in improving eye health, particularly child eye health, and there is need for concerted efforts that complement the existing initiatives and fill the huge gap in this area.

The following are the priority areas for action to address the prevention of blindness and visual impairment among children in Africa.

• Firstly, governments and development partners need to collaborate to initiate programmes targeting early detection and diagnosis of child eye health problems by integrating it as a component of community-based maternal and child health care interventions, as well as early childhood, preschool and school health programmes.

• Secondly, adequate resources of national budgets need to be allocated to health and specifically programmes that include child eye health. In economic terms, the cost of blindness, particularly amongst children, is significant. Although blind children are fewer in absolute numbers than adults, they account for a third of global economic costs associated with blindness. The projected financial cost of being blind in terms of treatment, care and lack of employment was calculated to be US$42 billion. Furthermore, it is argued that without major intervention the cost of global blindness would increase to US$110 billion by 2020 (Foster and Frick 2003). The eradication of blindness and low vision would imply a global economic saving of US$102 billion annually (Frick and Foster 2003). The percentage of GDP loss in 2000 for sub-Saharan Africa was the highest of all World Bank regions of the world, estimated at 0.42 per cent, and likely to increase to 0.50 per cent if the commitments of VISION 2020 were not reached (Frick and Gooding 2004).

SOCIAL AND ECONOMIC CONSEQUENCES OF NEGLECTING CHILD EYE HEALTH

The cost of child blindness has implications for the individual, the family, communities and societies. Blindness has a direct impact on a child’s health, education and quality of life. It also impacts on an individual’s productive potential and associated income loss. Loss of vision in early childhood has a major impact on families, particularly in terms of the implications for care and support, which may place a significant burden on resource poor environments.

Restricted and limited mobility characteristic of blind children often leads to social isolation and exclusion. Access to appropriate education facilities which provide suitable services for blind children – such as supportive mainstreaming, appropriate textbooks and adequately trained teachers – is generally limited in African contexts. As a consequence, the education of blind or visually impaired children suffers profoundly. In many situations, the education of those who look after them, who are often children themselves, is likewise affected.

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• Secondly, adequate resources of national budgets need to be allocated to health and specifically programmes that include child eye health. There is a stark difference in commitment for health across countries in sub-Saharan Africa. While countries like Rwanda earmarked nearly a fifth of their national budget for health, there are countries such as Guinea that allocate less than
2 per cent of their budget for the sector. Generally, expenditure on health in most African countries falls short of the 15 per cent Abuja target that all African countries pledged in 2001.

Thirdly, governments in collaboration with civil society organisations need to strengthen rehabilitation as an important component of child eye care through provision of affordable, good quality spectacles and services that enable children to make the best possible use of their vision.

Fourthly, immunisation and vitamin A supplementation programmes need to be further strengthened since these types of programmes are still the most important cost effective programmes which can prevent a significant proportion of child eye problems in Africa.

Fifthly, given that eye health problems are so closely associated with health and hygiene practices, increasing access to clean and safe water and hygienic sanitation facilities remains critical.

Lastly, negative attitudes and misconceptions about child eye problems are widespread and need to be addressed to encourage early diagnosis and enhance access to appropriate care and services. Parents have a critical role in promoting better child eye health through simple practices such as improving hygiene, improving nutrition and taking children for regular check-ups and early consultations, especially when children experience changes in eye conditions.

WHO SHOULD BE RESPONSIBLE FOR IMPROVING CHILD EYE HEALTH IN AFRICA?

**At global level**

- As stated in the recent Hyderabad Declaration, “Eye Health is Everybody’s Business”, all countries need to adopt and adapt Vision 2020 and its Action Plans to promote children’s right to adequate eye health care. All African governments and stakeholders are urged to work together in addressing avoidable blindness and preventing visual impairment through targeted investment in eye health structures and human resource development.

- Strengthening existing global alliances and networks will potentially expedite sharing of information and experiences, mobilise resources, avoid duplication of efforts and promote collective action to ensure children’s access to quality eye care and treatment in Africa.

**At regional and national levels**

- Children under five are most at risk of losing sight due to several health and environmental factors. Early detection and intervention programmes therefore become essential to treat and prevent visual impairments, including loss of sight. Child eye health needs to be mainstreamed in national health systems and early childhood development programmes.

- Adequate resources must be allocated to strengthen immunisation and Vitamin A supplementation, as they are proven cost effective interventions to significantly reduce child blindness. As a long-term strategy a broader approach, beyond Vitamin A supplementation, needs to be adopted by all countries to effectively control Vitamin A deficiency through improving production, access to and intakes of Vitamin A rich foods.

- There is need for training all health professionals to have a greater awareness, knowledge and skills for prevention and treatment of eye problems. In countries which have severe shortages of paediatric ophthalmologists, innovative training programmes which support task-shifting are required.

- Refractive errors represent a considerable proportion of visual impairment and significantly
contribute to learning difficulties. Countries should integrate refractive errors correction services including affordable spectacles provision in Primary Health Care services.

- Paediatric ophthalmic services are grossly inadequate in Africa, with only 26 Child Eye Health tertiary facilities located in just 11 countries. All countries in Africa should adopt and comply with the WHO recommendation of having one paediatric ophthalmic centre for every 10 million population, at least two ophthalmologists per million population and about four mid-level workers per million population.

- There is a severe shortage of data and information for planning and programme development targeting child eye health. Governments, in collaboration with development partners and research institutions, need to initiate projects that aim at generating adequate data and information and enhance Health Management Information Systems to assist formulation of programmes to improve access to child eye care and treatment.

**The civil society and private sectors**

- Civil society organisations and the private sector can play a critical role in promoting child eye health, especially in support of those national health plans which aim to provide affordable, good quality child eye care and prevention and treatment services – including rehabilitation services for child eye health.

**Communities**

- Community-based health and education programmes need to include basic knowledge of the signs and symptoms of eye problems, how to recognise risks and where to seek care. These awareness creation programmes should be informed by context-specific and culturally sensitive messages that counter misconceptions and myths to bring about health seeking behaviour among community members and increase access to eye health service facilities.

- In line with WHO’s recommendations for ensuring minimum standards of community actions to promote adequate eye care, all countries are encouraged to focus on eye hygiene for new-born infants, adequate hygiene for children, vitamin A supplementation, and refraining from using traditional medicines that further worsen children’s eye health.

- Communities themselves can work to combat the negative attitudes that exist towards families and children affected by blindness, misperceptions on the causes and collectively encourage all families to seek care in facilities that offer appropriate services.

**The media**

- The media plays a critical role in social mobilisation and awareness campaigns. Collaborative initiatives with national ministries of health and other agencies that have specialised knowledge in child eye care and treatment would contribute to bringing about changes in attitudes affecting child eye health.

Please refer the main report – *Child Eye Health in Africa: The Status and Way Forward* – for list of references.