



USAID
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LEARNING, INNOVATION AND RESEARCH AGENDA

USAID CHILD BLINDNESS PROGRAM



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USAID CHILD BLINDNESS PROGRAM

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DISCLAIMER

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ACRONYMS

AAPOS	American Association of Pediatric Ophthalmology and Strabismus
CBP	Child Blindness Program
CEHTF	Child Eye Health Tertiary Care Facilities
CC	Continuum of Care
IAPB	International Agency for the Prevention of Blindness
ICEH	International Centre for Eye Health
IEF	International Eye Foundation
PGRD	Partners for Global Research and Development
ROP	Retinopathy of Prematurity
RFA	Request for Applications
SES	Socio-economic Status
TAG	Technical Advisory Group
USAID	United States Agency for International Development

INTRODUCTION

The United States Agency for International Development's (USAID) Child Blindness Program (CBP) is part of the global effort to reduce blindness and visual impairment in children. The primary goals of CBP include: 1) increasing the number of children provided with quality eye care services in underserved communities around the world, and 2) increasing global knowledge of pediatric eye care through innovation and the implementation of best practices.

CBP has developed this Learning, Innovation and Research Agenda (Research Agenda) based on the latest scientific and programmatic information available in the field of pediatric eye care. The Research Agenda draws on data from published sources, evidence from field programs, and the recommendations of CBP advisors and key international organizations such as the International Agency for the Prevention of Blindness (IAPB), the International Centre for Eye Health (ICEH) and the American Association of Pediatric Ophthalmology and Strabismus (AAPOS). The Research Agenda presents fundamental considerations in the delivery of pediatric eye care and highlights current knowledge gaps within the field, as identified by leading global experts. Addressing these knowledge gaps through further research, new partnerships and the development of potentially catalytic approaches will make significant and meaningful contributions towards the treatment of visual impairment and the reduction of child blindness.

BACKGROUND

Delivering pediatric eye care is complex in all settings, but it is essential to avoid preventable and treatable childhood blindness. Pediatric care is highly specialized and is especially challenging in the context of the developing world. The Continuum of Care (CC), a core concept of CBP, emphasizes the need to treat a child within a fully established referral network. The child must enter a comprehensive service delivery system that integrates the identification of visual impairment with referral, treatment and rehabilitation. A full CC is a best practice in ophthalmology and optometry and is an essential part of all CBP projects and activities. More detailed information about the CC can be found in the CBP Request for Applications (RFA).

A summary of the basic considerations and existing circumstances in the delivery of pediatric eye care are noted below:

- Highly skilled sub-specialty trained pediatric ophthalmologists must be available.
The number of pediatric ophthalmologists in the world is very small. Many developing countries face a chronic shortage, or complete lack, of these sub-specialists. Training additional ophthalmologists to perform quality surgeries in a sustainable manner requires attention to many factors, including retention in underserved areas.
- A team of specialized clinical staff to support the ophthalmologist is needed.
The ophthalmologist cannot function on his/her own. Without trained clinical staff such as

orthoptists to measure squint, specialized anesthetists and nurses to participate during surgery, optometrists and low vision therapists to provide spectacles after surgery, a child's maximal vision cannot be restored nor properly treated. Trained counselors and equipment technicians are also key members of the team. Even screening personnel need to be specially trained to examine children accurately.

- Primary eye care should be recognized as a highly effective mechanism to identify and treat children.

The integration of eye care into primary health care for children is an effective way to identify children in order to prevent and treat child blindness. Detection and referral in this manner ensures access to a wide range of services. Integration can only be achieved in a scalable and sustainable manner when supported by policy with budgetary allocation and services that are affordable.

- Careful consideration of the high cost of services must be made.

Due to the specialized nature of pediatric eye care, treatment can be especially costly. Administrators must be creative and develop pricing structures that are attractive to the largest number of healthcare consumers while maximizing the collection of funds. In many places this has meant the cross-subsidization of pediatric ophthalmic services by other services that generate surplus income.

- Refractive error programs can only be successful with the understanding of the complexity of this approach.

High quality and effective screening for visual impairment (i.e. sorting out those with an actual problem without missing those who need care) is imperative. The delivery of eyeglasses for those with refractive error and the associated process to ensure that children with clinical conditions reach medical care can be problematic. It cannot be undertaken without the existence of a quality referral network along with systems that promote the use of eye care services, including the timely provision of spectacles. Children need to have access to refraction, clinical evaluation and care, as well as a source of spectacles.

- Pediatric eye care policy at local and national levels and the wide-spread use of best practice protocols must be increased.

- Control of vision loss in children needs to be an integral part of National Prevention of Blindness Plans.
- Retinopathy of Prematurity (ROP) is an area particularly in need of this support:
 - Standardized protocols should be required at national and local levels (e.g. screening for ROP should be included as a standard of care for preterm infants).
 - National policies are needed and are best produced by multi-disciplinary teams including neonatologists and ophthalmologists, and covering all aspects of primary, secondary and tertiary prevention of visual loss from ROP.

DIMENSIONS OF THE CBP LEARNING, INNOVATION AND RESEARCH AGENDA

The following six areas represent the topics and questions prioritized by CBP. Applications addressing the questions below are of particular interest to the program.

1. Continuum of Care (CC) and Referral Networks

The concept of the CC has been well described in the CBP RFA. It is imperative that organizations applying for CBP funds understand this concept and are able to document its consideration in proposed projects.

Areas of particular interest for CBP:

- Existence of the CC
 - How can primary eye care for children be integrated into existing services for young children and their mothers?
 - How can implementing organizations find quality partners to ensure that the full gamut of services needed for the CC in pediatric eye care is in place?
 - If the CC is already in place (either internally or with partners) how can organizations evaluate the quality and effectiveness of services provided by each of the partners and by the CC as a whole?
 - How might Child Eye Health Tertiary Care Facilities (CEHTF) be best organized to maximize their input at a local and regional level?
 - How is the CC best ensured in the case of refractive error programs?

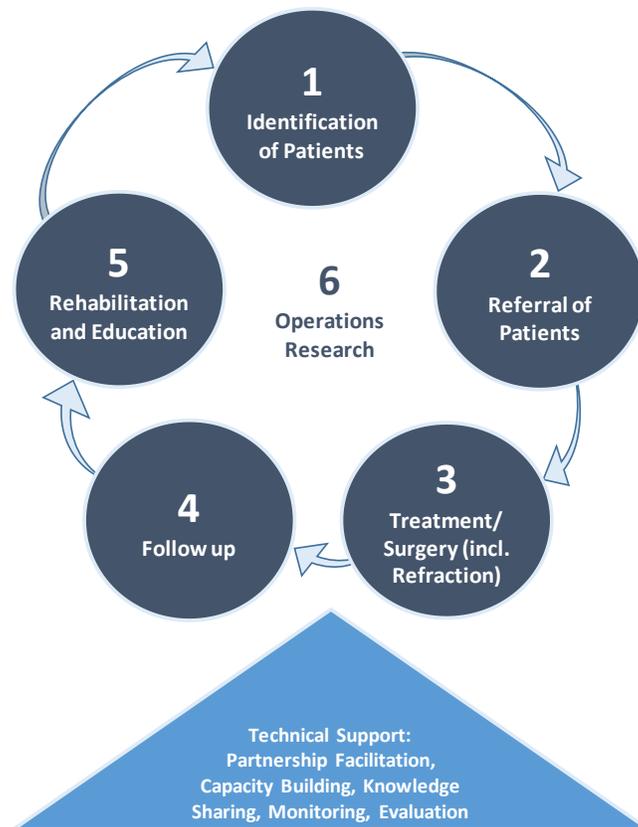


FIGURE 1: CONTINUUM OF CARE

- Education and Counseling
 - What strategies are most effective to ensure families take children in need of services for treatment? Do these strategies need to be different based on location, such as rural versus urban?
 - Can counselors or other staff increase acceptance by families for eye care for their children?

2. Capacity Building and Human Resources

Capacity building is critical throughout the healthcare field and is of particular importance in pediatric eye care. Hiring, training and retaining a sub-specialty team is not trivial. Personnel need highly specialized skills and, once trained, strategies or alternative mechanisms should be provided to keep them in underserved areas.

Areas of particular interest for CBP:

- Best approaches to attract, train and retain clinical personnel at all levels
 - What strategies best incentivize pediatric eye care clinicians to work full or part-time with vulnerable populations?
 - What strategies work best to ensure retention of qualified non-clinical staff?
 - What are the most effective strategies for delivering and supervising pediatric eye care activities?

3. Innovative Practices and Technologies

Recent technologies and the rethinking of mechanisms to deliver healthcare have created a paradigm shift in awareness, communications, data transfer and knowledge sharing. Current innovative practices and technologies include, but are not limited to: utilization of mobile devices and cell phones, application of telemedicine, creation and identification of new sources for equipment and supplies, development of new pricing structures, and the implementation of new screening approaches.

Areas of particular interest for CBP:

- Innovative practices and technologies to improve pediatric eye care
 - What innovation(s) can be applied to facilitate diagnosis?
 - Are there innovations that would allow underserved populations to access care they otherwise would not receive?
 - Can innovative strategies or technologies maximize the identification of children with eye problems?
 - How can innovation be applied to facilitate the use of services?
 - Is there a role for innovative strategies or technologies in increasing the use of follow-on services such as the availability of low vision devices for children?

4. Best Practices and Lessons Learned

Some programs have managed to develop and deliver excellent services in developing countries. However, many of these experiences and “lessons learned” have not been published or shared in a systematic fashion. CBP is interested in documenting these experiences and sharing them for the benefit of others. In areas where best practices do not exist, CBP supports the testing of alternative interventions and services.

Areas of particular interest for CBP:

- Best practices and protocols for early detection and screening, quality treatment, proper follow-up and availability of rehabilitation for children facing avoidable blindness
 - What lessons have been learned in addressing the increasing rates of ROP through standardized protocols and policies?
 - Are there best practices for increasing awareness and promoting behavior change through community-based education and other strategies?
 - Regarding monitoring and evaluation, what are the best metrics? What are the most effective and efficient means to collect and report data? Is it effective to include children in rapid assessments conducted for adults?

5. Sustainability and Cost Effectiveness

Understanding how to deliver pediatric eye care at a reasonable cost is critically important. Much of pediatric eye care is, by nature, costly. It is therefore important to understand costs for various strategies in order to ensure the greatest number of children are receiving eye care at the lowest cost.

Areas of particular interest for CBP:

- Financial and programmatic sustainability of pediatric eye care
 - What are the best strategies to integrate primary eye care into existing services in underserved areas?
 - What strategies are most cost effective for identifying children with eye conditions when budgets are limited?
 - Are there ways to lower the direct cost of eye care to the patient and their family?
 - What is the population's willingness to pay for child eye care and what pricing maximizes participation?
 - Are there models for the delivery of services that are completely financially self-sustainable?
 - What models or strategies facilitate and promote cross-subsidization to ensure access to eye care to children with no financial resources?

6. Gender and Inclusion

Ensuring pediatric eye care is accessible and affordable across all levels of society is critical. It is important to monitor services across gender and socio-economic class, between urban and rural areas, and to deliver care without bias to those in need.

Areas of particular interest for CBP:

- Delivery of equitable care across gender, socio-economic status (SES) and geographical setting
 - What strategies best ensure that girl children access eye care equally to boy children?
 - How does SES and geography impact gender equity for children accessing eye care?
 - What barriers exist for low-income families trying to take their children for eye care?
 - Who makes the decision to access care for the child, and is that decision influenced by education level or economic status?

For further information on the USAID Child Blindness Program and access to copies of this publication, please visit www.usaid.gov/childblindness

USAID programs in global health represent the commitment and determination of the U.S. government to prevent suffering, save lives, and create a brighter future for families in the developing world. USAID's commitment to improving global health includes confronting global health challenges, such as child blindness, through improving the quality, availability, and use of essential health services.

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