Seeing is Believing V:

A comprehensive rural eye care model in Yunnan Province

– increasing universal eye health coverage for disadvantaged groups

The Fred Hollows Foundation

Guidelines on a Comprehensive Rural Eye Care Model in Yunnan Province

——Key Elements and Successful Strategies

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CONTENTS

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"Seeing is Believing Phase V" :Comprehensive Rural Eye Care Model for Vulnerable Groups in Yunnan China Project is a successful rural eye care model that has contributed to the existing public health system of eye health sector.

The documentation work of the project was undertaken between October 2018 and February 2019. The review team would like to extend its thanks to The Foundation's China Office in Kunming and its staff members for their hard work, patience, information and support throughout the process. We would like to thank all the honorable government officials from the Health Commission, Education Bureau and Disabled Person's Federation of Yunnan Province for their valuable input. We also thank all the hospital management and health professionals, primary school teachers and Community Health Workers (CHWs) who received project training for their support. Finally, we would like to thank the project beneficiaries who participated for sharing their views and providing consent as needed. The support from all parties has been invaluable in documenting and summarizing the project's activities and we believe this will contribute to the improvement of eye care health services in Yunnan and beyond.

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SUMMARY

China accounts for seventeen percent of blind people in the world. The leading causes of avoidable blindness in China include untreated Cataract, uncorrected Refractive Error (URE) and Glaucoma. Refractive Error is the leading cause of vision impairment.[1] Globally, every one out of four people with Diabetes live in China, of which 30% are affected by Diabetes Retinopathy (DR)[2].

Yunnan Province is situated in the border area of Southwest China, where 90% of land is mountainous. Yunnan significant is home to a large ethnic minority population and many people living in poverty. Rural Yunnan experiences a significant lack of capacity in eye care service delivery in the government health system.

To increase access to universal eye care for disadvantaged groups, The Foundation launched a pilot project titled "Seeing is Believing V: A Comprehensive Rural Eye Care Model (CRECM) in Yunnan Province–increasing access for disadvantaged groups to universal eye care" between April 2016 and March 2019.

In order to deliver eye health services for more disadvantaged people, The Foundation worked with Yunnan Provincial Prevention of Blindness Office and the Yunnan Health Commission during 2016–2018 to implement the Project. The Project aimed to pilot and build a comprehensive rural eye care model that was evidence–based and replicable, and focused on the prevention and treatment of key causes of visual impairment/avoidable blindness, such as Cataract, RE and DR. The Project aimed to establish blindness prevention networks by enhancing the capacity of eye care service delivery, blindness prevention management of partner agencies, as well as the primary eye care service delivery at the grassroots level. Establishing blindness prevention networks at provincial–prefecture–county and township/village levels and integrating them with the existing health system was designed to enhance sustainable and comprehensive rural blindness prevention capacity and making a contribution to eliminate avoidable blindness in China. Under the leadership and guidance of the Yunnan Provincial Health Commission, Education Bureau and Disabled People's Federation, The Foundation worked in partnership with the Provincial Prevention of Blindness Office to implement The Project with the public health systems at provincial, prefectural, county and township/village levels. The key implementing agencies included seven public hospitals, including Yunnan Red Cross Hospital and other prefecture/county hospitals.

The guidelines present key information and concepts on eye health, describing the problems, needs and challenges facing eye health service in remote rural areas. They also detail the relevance and application of the project model. The manual's contents derive from practical piloting work and strategies in Yunnan. The guidelines present a variety of key elements of CRECM, and describe the conditions under which the model is successful and efficient.

These elements have been proven in practice to be successful and effective by the communities, hospitals, local governments and organizations involved in the process. The model is also consistent with international standards and goals for eye health, health system strengthening and national policy. The 1234567 Model developed by the Project consists of the following key elements:

1 THEME: Eliminating Avoidable Blindness;

2 CAPACITIES: Improving professional eye service delivery and management capacity and improving the

1 Vision Impairment and blindness, WHO, 2018

2 IDF Diabetes Atlas, Seventh Edition, 2015

primary eye care health service delivery capacity of grassroots community health workers;

3 OUTREACH: Reaching out to rural villages, communities and schools;

4 LEVEL SYSTEMS: Integrated eye care service networks at provincial-prefectural-county and township/village levels;

5 FOCUS: Focusing on the multi-dimensional needs of vulnerable groups living in difficult situations;

6 ENHANCEMENTS: system building, quality service delivery and knowledge management;

7 ACTIONS: training, provision of medical equipment, screening, treatment, health promotion, research and advocacy.

The sustainability and success of the model requires 10 conditions：Government Leadership，Policy and Governance，Combination of Prevention and Treatment，Research and Advocacy， Resource Allocation to the Grassroots Level，Human Resource Capacity Building，System Building，Quality Service Delivery，Multi-stakeholder Participation and Great Health[3].

This model is itself evolving as the environment and specific regional and demographical circumstances develop. This is an ongoing process that needs to be continually improved.

I.Introduction

Aims of the Guidelines

The Guidelines aim to document and summarize the evolutionary process and achievements of the Project Comprehensive Rural Eye Care Model. The Guidelines aims to sustain the Project's success and impacts on policies and practices and to advocate for replication of the Model experiences in Yunnan province and other provinces in China. The Guidelines are not an academic research paper but serve to summarize and present the key and effective elements of the model.

Target Audience

- Public health policy makers
- Relevant government departmental staff (health and education, etc.)
- Managers and health care professionals from public health organizations at all levels
- Mass Organizations (Disabled People's Federation, Women's Federations, etc.) and NGOs
- International organizations engaged or in support of eye care work (foundations and international NGOs)
- Other stakeholders (researchers, volunteers, social workers, media, etc.)

3 Great Health: The Chinese government's overarching idea is to move from "disease-centered" care to "big health", aiming to deliver a full suite of health services that cover the entire care continuum, with an emphasis on health management and chronic disease management.

How are the Guidelines Structured?

The guidelines start with key information, current situation and needs, summary of the project model and successful factors, and explains project strategies and impacts, best practice case studies and evidence of project value. The resource also provides policies, practical tools and other useful reference resources.

How to use the guidelines ?

- Training on Blindness Prevention(PBL) for PBL staff
- Eye Care Programming and planning
- Project model advocacy and replication
- Project Model Video of "Seeing is Believing"

II.Important Concepts and Information

Eye Health	Eye health is an integral part of the national health picture. Vision impairment, including blindness can seriously impact physical health and quality of life, placing burdens on families and society, and preventing people from participating in social and economic activities [4].
Avoidable Blindness	About 80% of eye diseases that cause blindness are preventable and controllable, and can be diagnosed early and treated with early intervention. Besides the vaccination and prevention/treatment of tuberculosis, prevention of blindness is the most internationally-recognized cost-effective medical treatment [5]. In 1999, the Chinese government ratified the Vision 2020 -the Right to Sight. Elimination of avoidable blindness is an integral part of Chinese government's commitment to realizing the UN Millennium Development Goals.
Cataract	is one of the most common eye diseases that can cause blindness. According to the WHO, in 2010, 82% of people who were blind and 65% of people with moderate and severe blindness were aged over 50 years. As the world population ages, the percentage is expected to rise [6]. The leading cause of this blindness is Cataract, which is can be treated.

4 China's 13th Five Year Plan on Eye Health 2001-2020.

5 Universal Eye Health, a global action plan, WHO, 2013 6 WHO website.

6 WHO website.

Diabetic Retinopathy (DR)	is one of the main eye diseases that cause blindness among youth and middle aged people. The direct consequences of eye complications of diabetes is visual damage and even blindness. Prevention of DR starts with control of blood sugar levels, regular examinations, early intervention and treatment.
Refractive Error (RE)	refractive error (including distance vision, myopia and astigmatism) is the main cause of visual impairment in China and can be corrected easily. Severe myopia and may cause blindness. Almost all myopia can be corrected by wearing glasses[7].
Health System Streng-thening	the World Health Organization (WHO 2007) outlined the aim of strengthening health services through six building blocks: service delivery, health workforce, information, medical products, vaccines and technologies, financing and leadership and governance. Strengthening health systems has been adopted as a key aim of international eye health organizations.
WHO (2013)data reveals	80% of all causes of visual impairment are preventable or curable. 90% of patients with visual impairments live in low-income countries.

III. Current Situation of and Challenges for Chinese Eye Care Services

China accounts for of the highest number of blind people and people with vision impairment in the world, with cataract-induced blindness among the poor and increasing incidences of refractive error among children and young people.[8]Globally, myopia rates are the highest in China[9]. Myopia is an increasing concern, an increasingly cause of visual impairment in China with patients being increasingly diagnosed at an early age. Quality refractive error service is still difficult to access at county level and below. DR screening and treatment at county level and below is basically not available.

7 WHO website.

8 China's 13th Five Year Plan on Eye Health 2001-2020.

9 THE IMPACT OF MYOPIA AND HIGH MYOPIA University of New South Wales, Sydney, Australia 16 - 18 March 2015, Potential lost productivity resulting from the global burden of uncorrected refractive error TST Smith, a KD Frick, a BA Holden, b TR Fricke b & KS Naidooc

Government and Policies:

Insufficient Attention: Prevention of blindness in different regions and government departments, receives insufficient attention, which is reflected in the level of eye health financing from government. Moreover, there is a need to improve a government-led and strong managing body on prevention of blindness.

Medical Health System:(service providers)

Imbalanced distribution of medical resources: 80% of blind people live in rural areas, mainly in middle and western regions, while 80% of eye health resources are concentrated in urban and eastern regions. The uneven distribution of eye health resources significantly impacts rural eye patients from western regions who experience difficulty accessing eye health services.

Insufficient capacity: The grassroots level eye health service network is not complete, with weak capacity at the local eye health level. Currently, the three tier network (county, township, and village level) of eye health services is incomplete. Eye health service organizations deliver services based on their own roles and responsibilities, but fail to network with each other to effectively carry out community screening, health promotion, referrals and training.

Treatment receives far more attention than prevention: There is a lack of recognition by health professionals of the importance of blindness prevention. Not every eye health professional recognizes the value of preventing. Many eye health professionals do not adopt modern concepts and technologies on management of blindness prevention and wait for patients to come to them. Screening services are rarely provided as an outreach to patients. Many health professionals focus more on high-end surgery techniques, while few place importance on universal and appropriate techniques in blindness prevention.

Community People (Service Receivers)

Low awareness: the general public has low awareness about eye care. A good proportion of eye patients do not know that eye diseases can be treated or that blindness is avoidable through prevention; many people do not have basic eye care knowledge and do not know how to protect their own eyes; a sizeable population does not seek treatment because of traditional beliefs.

Practical challenges: Long distance, communication difficulties due to (ethnic group) language differences, children and the elderly being left behind, and lack of information are some of the obstacles to the appropriate diagnosis and treatment for eye patients from remote and poor ethnic areas, making it hard for them to access eye health services.

High costs of eye disease treatment: Due to the poor economic conditions, particularly in the western, rural and remote areas, (and despite the availability of medical insurance schemes), some eye patients cannot afford the treatment and related costs (including travel, food and accommodation, and medical checks); elderly persons and women, due to their low socials status in their families, whose domestic care roles and economic values tend to be neglected, may be viewed as "burdens" and not be treated as priority. The gap between eye treatment costs and patients' willingness and capacity to pay also lead to the perception that it is "too expensive" to treat eye diseases.

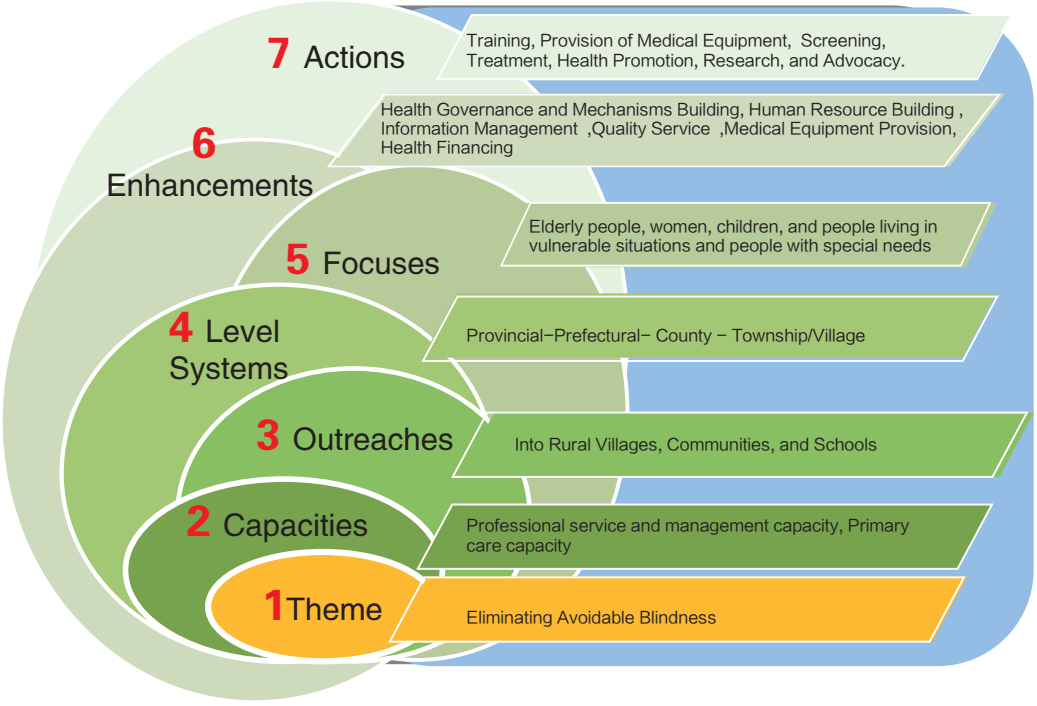
IV. "1234567 MODEL" and its Key Elements

The Model derives from the practices of the "Seeing is Believing Phase V": Comprehensive Rural Eye Care Model for Vulnerable Groups in Yunnan China Project (April 2016 to March 2019). The model is based on past project experiences at the Foundation and in addition to empirical evidence.

The Project strategies and approaches are understood and supported by the provincial and local health authorities (partners), and are consistent with the national health and education policies. **The project design is proven to be highly relevant and has met the priority eye health needs of local residents and patients in project locations.**

The model applies to remote and poor ethnic areas where medical resources are scarce and eye health needs are not sufficiently met. The model is mindful of the diversity of grassroots rural China, as well as national demographic and health system contexts. The model itself is an evolving process that responds to the general context and specific regional and demographical development contexts. It can be contextualized for different environments and contexts across China.

Comprehensive Rural Eye Care Model



1 THEME: Eliminating Avoidable Blindness is the core theme of the comprehensive rural eye care model. The model aims to achieve basic health needs and respect the rights of people, taking into account the three main eye diseases that cause blindness locally (Cataract, Diabetic Retinopathy and Refractive Error) as the entry points, through systematic service delivery and capacity building in the eye health sector, to integrate eye health system into public health system and strengthen eye health systems.

2 CAPACITIES: To improve professional eye care service delivery capacity and blindness prevention management capacity; to improve the primary eye care service delivery capacity of grassroots public health workers. Capacity building for health professionals is the key to promoting sustainable development of eye health services, and establishing health professional and health management teams that are equipped with comprehensive eye health service capacity. The teams are vital in providing quality eye care services for local people. Taking advantage of the provincial and prefectural level professional knowhow, the model delivers training on eye health prevention and treatment for both health management and professionals. Training for health professionals is carried out in two ways: placement training (trainees receive systematic training on specializations including cataract surgery at the provincial training center) and hospital-based training (provincial level trainers provide hands-on training on surgery for county hospital doctors, as well as delivering lectures and discussions based on local needs). Training for intern is and endocrinologists on eye health knowledge and information at prefectural and county level hospitals facilitates more effective two way referrals within the hospital. Prefecture and county hospitals then provide eye health training and support for local primary health professionals at township and village clinics. (*For more information, please see the Best Practice Case Stories below*).

3 OUTREACH: Reaching out into rural villages, into communities and schools. Eye health services do not stop at the hospital. Health professionals at local hospitals take eye health services to local communities and schools, expanding coverage and taking services to patients and vulnerable groups. The outreach service promotes face-to-face communication and provides early intervention and eye health management services. Community outreach enables integration of public awareness, health promotion, identification of patients, and advertising of hospital services. The outreach improved rural residents' awareness about eye health and strengthened their understanding and knowledge of eye diseases and treatments (for more information, please see the Best Practice Case Stories below). Outreach into schools provides screening for students and training for teachers, strengthening and expanding the accessibility and coverage of eye health services for children.

4 LEVEL SYSTEMS: Integrated health systems at provincial-prefectural-county and township/village levels. The model supports development of a collaborative prevention and treatment network on eye health. By employing a top-down technical support system, and a bottom-up effective referral system, the model embeds the functions and roles of health service agencies at various levels.

5 FOCUS: Focusing on the needs of elderly people, women, children, and people living in vulnerable situations (economic poverty, disability and migration); focusing on special needs (language, literacy, transport and other barriers). The project experiences reveal that a broader focus – beyond economic hardship – is needed is needed to take into account international and national policies on gender equality, disability and inclusion, and child protection

6 ENHANCEMENTS: In line with the WHO HSS and national eye health policies, the model aims to strengthen the comprehensive capacities of public health system through 6 enhancements in the comprehensive eye health services.

◆ Enhancement of Health Governance and Mechanisms: Building health sector policies; harmonization and alignment; oversight and regulation; building mechanism;

◆ Enhancement of Human Resource: Building workforce policies and investment plans; advocacy; norms, standards and data;

◆ Enhancement of Information Management: facility and population based information & surveillance systems; global standards and tools;

◆ Enhancement of Quality Service: delivery models; management; safety & quality; demand for care;

◆ Enhancement of Medical Equipment Provision: infrastructure, equipment, facilities;

◆ Enhancement of Health Financing: research on policies; tools and data on health expenditures; costing.

7 ACTIONs: Training, Provision of Medical Equipment, Screening, Treatment, Health Promotion, Research,

and Advocacy. These seven actions are key to improving the comprehensive eye health services in rural areas. Each of these actions has been piloted and experiences documented in the project regions, and all of them operate according to the theme of "avoidable blindness". Through specialization of professional training for eye care health professionals, provision of medical equipment, screening in and out of hospitals, treatment, and health promotion, the model connects service providers and the community members with eye health needs. Through interviews and feedbacks from relevant stakeholders, the model enables better understanding of the grassroots and general public health system, and provides references and evidence for policy makers at various levels through advocacy. Through public participation and various creative forms of public health promotion activities, public awareness on eye health of different-aged people is created.

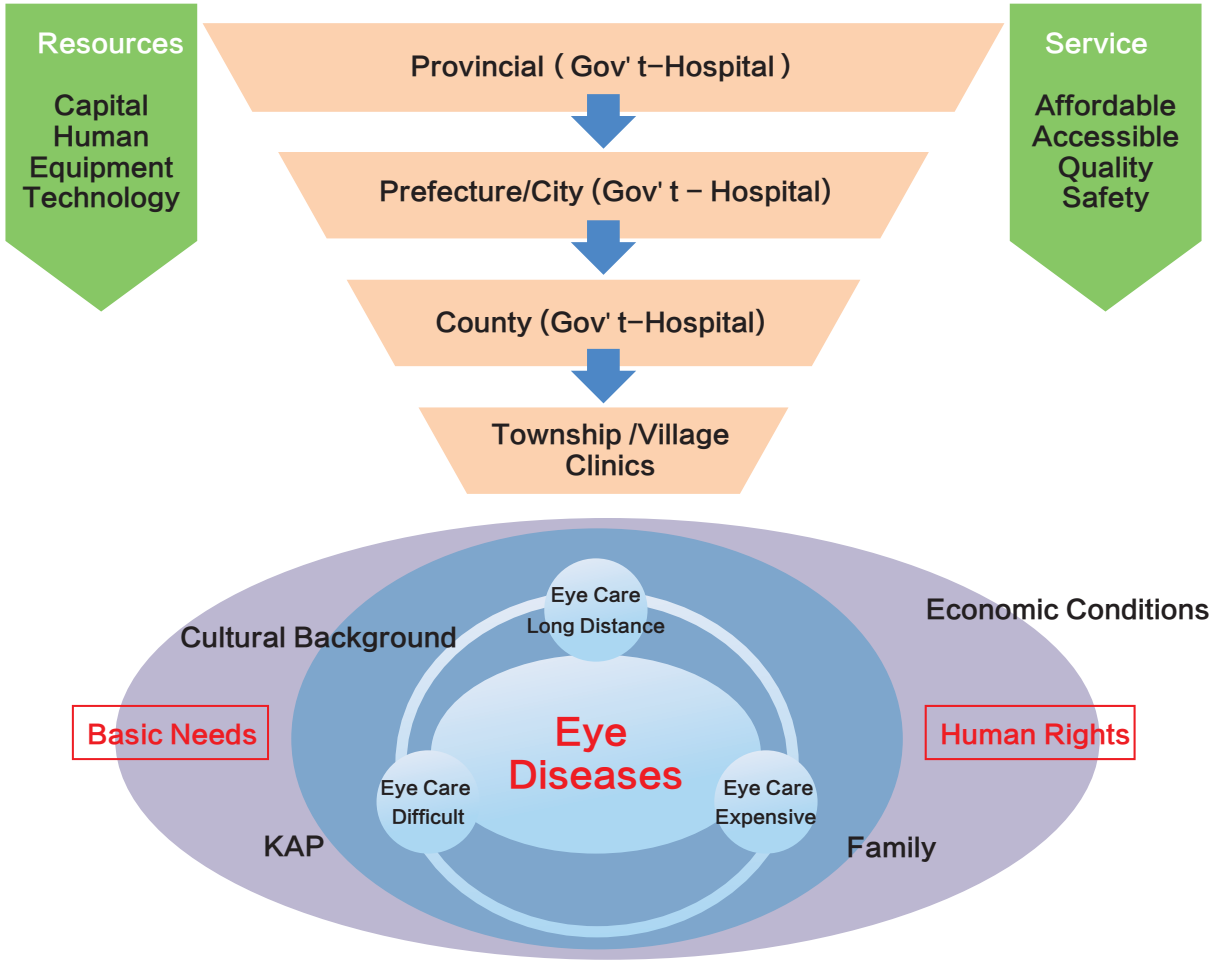
The Project Strategies and Intervention	
Training	（1）Eye professionals and internal medicine/endocrinology department: with the support from hospitals at higher levels, lower level hospitals ensured training of master cataract surgeons, master nurses, master refractionists, master trainers for DR treatment and management, cataract surgeons, refractionists, DR treatment and management, eye nurse training, and staff training in equipment maintenance; （2）Teachers and CHWs: primary eye care training （3）Eye care management staff for department management：eye department professionals, relevant government staff
Provision of Equipment	Improvement of equipment provision and ongoing maintenance and guidance on its use —— Provincial level: improve training equipment —— County level：provide basic eye check equipment, treatment and surgery equipment —— Village level：provide eye screening and educational tools
Eye Screening	Community screening, school screening, inter-hospital referral and screening
Treatment	Including diagnosis, treatment, surgery services; RE examination and spectacle service
Public Education	TV, radio, newspaper. wechat, ongoing community eye care promotion activities (on World Sight Day. Children's Day, Women's Day and World Diabetes Day, etc) and IECs distribution
Research	Including health financing, KAP, medical evaluation, mid and final evaluation of the Project, and project model experience summary
Advocacy	Seminar, conferences, model experience sharing, project report and information sharing (e.g sharing of DR prevention at the Annual Conference of the Society of Ophthalmology, sharing of DR intervention best practice at the Conference of Society of Endocrinology)

V. Impacts of the Model and Ten Success Factors for the Model

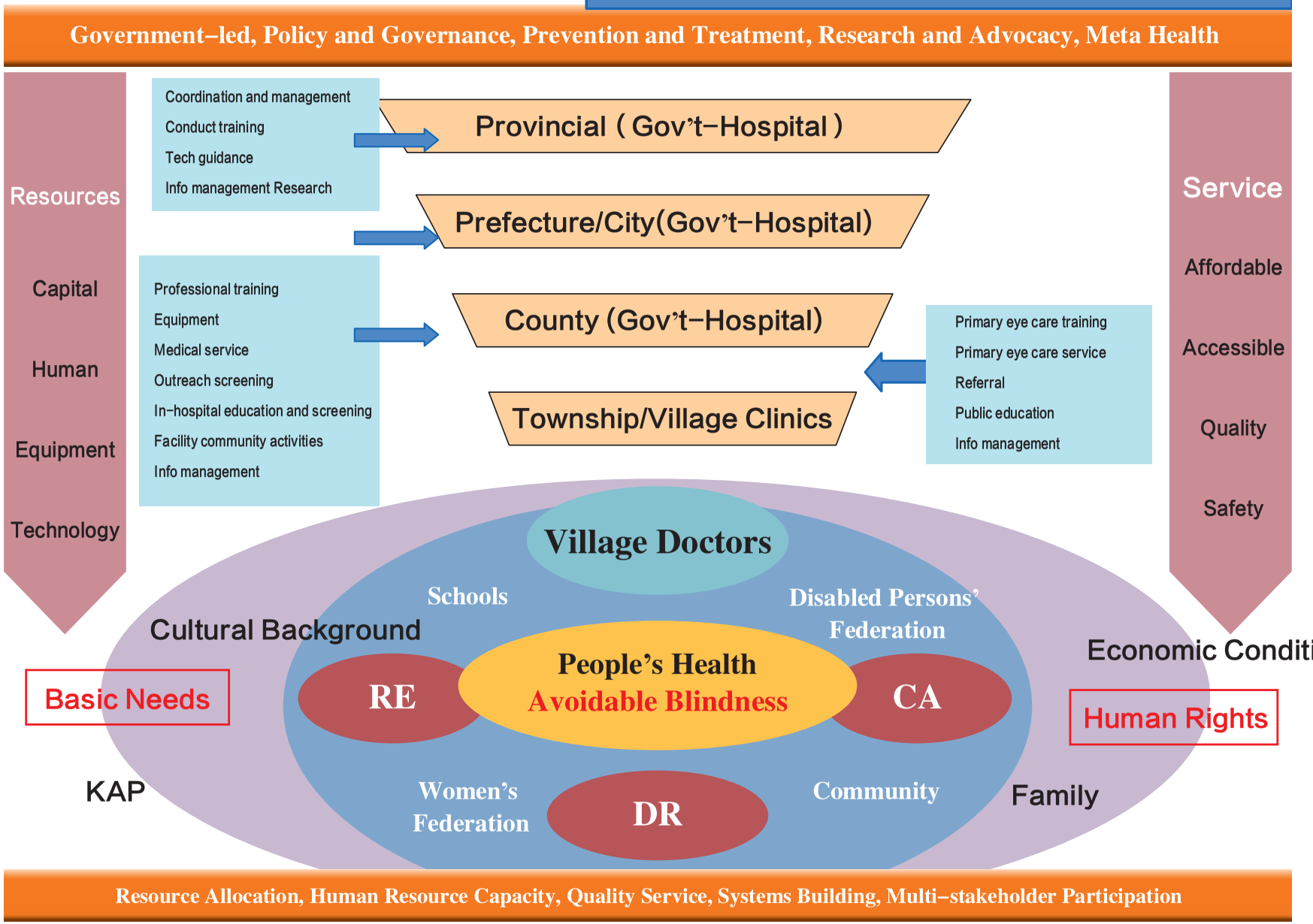
Prior to the Project:

A the diagram to the right indicates, eye health work did not receive sufficient emphasis and support in the public health system. The emphasis was placed more on treatment than on prevention. The health resource allocation was uneven, with a lack of eye health resources and a lack of grassroots capacity. The quality of services was low, not meeting the needs of grassroots level. The village doctors were not mobilized to function in any way in the eye health service delivery. At the community level, there was limited understanding of healthy lifestyles in regard to eye health, and low awareness of prevention and treatment of eye diseases. Eye health is a basic right and basic need, however services don't always reach those in need.

By developing strategies and designing the pilot project that responds to three key challenges, implementation of the rural comprehensive eye health service model delivers impacts and changes including: 1) government leadership and support facilitates for local eye care policy changes; 2) increasing the comprehensive capacity of health system with a shift in emphasis from "treating eye diseases" to focusing on human health. Public participation has been strengthened, with expansion of stakeholders at grassroots level; 3) at the level of service receivers: local people eventually benefit from improved eye health services. (Please see the diagram below)



The Impacts and Successful Elements of CRECM



The Project intervention promoted the building of a supportive environment , resulting in enhanced public health system and changes in public awareness and behavior. The impacts, effectiveness and effectiveness of the Rural Comprehensive Eye Health Service Model are closely associated with the following 10 conditions for success:

Supportive Environment

Condition 1: Government Leadership With strong government leadership, design and implementation of national policies and planning relating to avoidable blindness and visual impairments form the cornerstone of strategic actions.

Government takes the lead in policy and service design and planning, as well as implementation, resource allocation, institutional building and system support. The pilot project experiences prove that the leadership support, coordination, guidance, supervision and management provided by government departments and a strong Blindness Prevention agency form the key guarantee for effective implementation of project activities at all levels. The pilot project implementation requires coordination and supervision from the Health Commissions , Education Bureau , Disabled People's Federation and the Office on Prevention of Blindness . It also depends on the public hospital as the key implementing agency , and receives project management and funding support from international foundation . Government departmental leadership , coordination , and platform building is key to promoting multi-stakeholder participation (multi-departmental cooperation -- education , community organizations and multi-disciplinary partnership) and resource integration . Government-led rural comprehensive eye health service delivery ensures that the services are in line with the national health policies, meet the basic needs of grassroots eye patients, and enable the replication of effective project experiences and sustainable development.

Condition 2: Policy and Governance Building on and developing relevant policies, it is important to support the integration of an agenda on the prevention of visual impairment and eye care into the broader health policy and strategies, through health governance work. The model aims to achieve the international objective to strengthen the health system: by ensuring integration of sustainable development of eye health services and health system governance with local governance. It is still necessary to incorporate eye disease control planning into the broader public health service system. Furthermore, it is important to integrate eye disease prevention and control into government health system development planning at all levels, and into the health-related poverty alleviation planning and broader national social and economic policies.

Condition 3: Combination of Prevention and Treatment To move work priorities forward and focus on prevention and health promotion. Priorities should be placed on early identification, early intervention and early treatment. This is the basis of multi-party collaboration. In order to improve a multi-sectoral and multi-departmental coordination mechanism, public awareness must be raised to highlight the benefits of prevention before treatment. Eye health work needs to be viewed more from an eye health perspective rather than an eye disease centered.

Condition 4: Research and Advocacy To support and carry out relevant research, summaries and improve model building experiences, and to promote and replicate the model. To collect and analyze the changes in knowledge-behavior-attitude of relevant groups of people and the barriers they face in seeking medical treatment, to grasp the up-to-date rate of prevalence and costing of eye health services; to analyze health economy and mechanisms for improving health financing, and to promote and advocate for government to increase funding support in eye health sector; to take advantage of appropriate platforms and timing in promoting and advocating for key information, and providing references for policy making, and supporting policy makers to better understand the social and economic benefits associated with prevention of blindness and visual impairments. These efforts will be beneficial for developing more cost-effective intervention measures and help provide an evidence base to overcome barriers in service delivery of medical agencies and improve appropriate cost-effective strategies, so they can meet community public health needs. These needs are continually growing and must improve and protect community eye health.

Health System Strengthening

Condition 5: Resource Allocation to the Grassroots Level In order to change the current situation of medical resources being concentrated at bigger cities while the vast eye health needs clustered at grassroots level, the model promotes network building of health systems at provincial-prefectural -county and township/village levels, to facilitate top-down coordination, two way referrals, and synergy of equipment, human and technological resources. Taking into account the weak capacity at the grassroots level, the model facilitates hardware equipping (development and allocation of eye department medical treatment facilities, equipment and systems) for all project hospitals at county level and software building (diagnosis, treatment and rehabilitation service capacity), in order to promote integration of eye health service into the primary and county health systems.

Condition 6: Human Resource Capacity Building Enhancement of capacity building for grassroots eye health professionals is a critical factor in the success of the model. This is in line with the National Health Commission's policy priorities to improve the service capacities of county level hospitals and grassroots health professionals.

Condition 7: System Building To continually improve the reporting mechanism and management system and enhance information management related work such as data collection and information system building; to ensure that the training mechanism becomes the guarantee of relevant, systematic and sustainable use of human resources at all levels: The pilot experience suggests that it is necessary to strengthen screening procedures and systematic management; Sound coordination and communication mechanism helps achieve coordinated objective and actions by multiple stakeholders; strengthened referral mechanism and rehabilitation services for visually impaired groups can ensure quality standards and requirements of eye health service. Make available and accessible essential medicines, diagnostics and health technologies of assured quality with particular focus on vulnerable groups and underserved communities, and explore mechanisms to increase affordability of new evidence-based technologies[10].

Condition 8: Service Delivery To turn around the lack of or weak delivery of eye care services at county level and below, to enable eye care resources and service capacity to be closer and more accessible to grassroots needs, thus ensuring universal availability and accessibility of quality, professional, equitable and comprehensive eye care health services for vulnerable groups living in hardship, economic difficulties and remote areas. The model helps raise awareness on eye health of rural residents, overcomes barriers in transportation, language and migration, helps lower economic burden and eliminates unnecessary concerns in seeking medical support. It also helps promote connection between service needs and use of services. With a strong focus on rural areas and at the grassroots level, the model promotes equitable development and delivery of eye health services, maintains the public interest nature of basic health services, and gradually narrows the gap in basic health service and health standards between the urban and the rural areas and between regions and between different groups. Through support for grassroots health organizations in their quality service delivery, the model ensures that eye health needs of target groups at different life cycle stages be met; the model aims to promote the improvement and upgrading of public health service delivery through improvements in work ethos, service delivery model, and policy influencing, in order to achieve the final goal of eliminating avoidable blindness.

10 Universal Eye Health: A global action plan2014 - 2019, 2013, WHO.

Public Awareness-Raising on Eye Health

Condition 9: Multi-stakeholder Participation At the grassroots level, the model establishes and expands effective partnership building and promotes broader participation of key stakeholders. It encourages non-health departments to participate in policy-making, planning and implementation of local health service and prevention of visual impairments. Participation helps with poverty and socially-related health issues. To promote participation (including social organizations, community organizations, schools, educational departments and grassroots governments), to strengthen inter agency coordination and mobilize more social forces to participate and be creative. To effectively control factors influencing healthy ecological and societal environments, and formulate social governance that is multi-layered and diversified.

Health promotion, public awareness raising and grassroots service delivery are the keys to individual and organizational participation. Information about the success and efficiency of cataract surgery needs to be communicated at grassroots level, especially among elderly people. Similarly, the capacity of county level hospitals to perform cataract-related surgeries and the availability of new medical equipment will be communicated to all community members as a result of these hospitals changing from No Capacity on Cataract county hospitals. As the prevalence of Diabetes rapidly increases, DR is on the rise too. In addition to raising public awareness, it is necessary to provide relevant services. For Diabetic patients, sound and healthy behaviors and regular eye checks are critical.

There is a need for effective comprehensive prevention and treatment plan for the high prevalence of myopia amongst children and youth in China. In order to protect their eyes and ensure that they have a bright future, the eight ministry's joint Plan on Comprehensive Prevention and Control of Myopia Amongst Children and Youth details effective strategies and measures to be taken by families, schools and health agencies, as well as students. The tasks of health agencies include establishing health files, regulating diagnosis and treatments, strengthening health promotion[11], organizing education on RE
and activities to raise awareness on visual health by children, parents and schools. On these tasks, it is far from enough to rely on the health sector forces.

Condition 10: Meta Health Great health is a macro concept. The single forces of hospitals and government forces are limited when it comes to Great Health. Education is critical to solving blindness and visual impairment. There is a need to mobilize all social forces to carry out extensive health promotion and increase public awareness on eye health prevention and treatment, and increase public awareness on Cataract, RE and DR, as well as on low vision. The low public awareness on eye health led to low demand for eye health services, while the service level is not sufficient when the public awareness is increased, are two of the challenges facing the eye health. The Great Health focuses on the risk factors and misconceptions, advocates on the individual responsibilities and self-managed health management, involving health issues such as physiological, psychological and social health. To solidify the national strategy of a Healthy China, the most important thing is to incorporate the health first concepts into all arenas of social and economic development. Healthy China is not a strategy that can be achieved by only the health sector[12]. Promoting construction of Healthy China is a national strategy to achieve coordinated development of people 's health , economic and social development , and a critical measure for China to pro-actively participate in the global health governance , and to fulfill its international commitments to the Sustainable Development Agenda 2030.

To implement public health promotion activities in a variety of creative forms, to raise public awareness of people at different life cycles on eye heath, to carry out extensive health promotion on prevention and treatment of eye diseases. To mobilize all walks of life and individuals to participate in a pro-active way, to emphasize prevention and promote healthy ways of living, in order to fulfill universal health needs.

Finally , eye health , as an integral part of the national health , takes "principles of combination of government -leadership and participation of societal and social forces , promotion of participation , contribution and sharing of each individuals , implementation of prevention -oriented strategy , promotion of health life styles , reduction of diseases , strengthening of early diagnosis, early treatment, early recovery, so that the national health for all can be achieved."[13]

11 The Myopia rate incorporated into the government performance evaluation, Xin Jing Bao, August 31st ,2018.

12 National Health Commission, 2016 http://www.nhc.gov.cn/xcs/mtbd1/201603/3c92c88b45034012ba02468623ab1701.shtml 13 State Council of the People's Republic of China: Healthy China 2030 Action Plan

VI. Best Practice Case Stories

Best Practice Case Stories:

Development Trajectory and Enhanced Capacity in Comprehensive Eye Service Delivery (Nanjian County)

Nanjian County is a national poverty county, and 99% of its land area is mountainous area. 90% of its total population of 280,000 (2017) is engaged in agriculture. Since the project started, the numbers of eye doctors in the Eye department of Nanjian hospital have increased from two to three. Originally the Eye Department shared in-patient beds with the Chinese Medicine Department, and since 2017, it has its own in-patient beds. The Eye Department has already been performing Cataract surgery independently, and in 2018, a total of 150 Cataract Surgeries were performed. It now also provides professional services in DR screening and RE ophthalmic test. The overall capacity in human resources, equipment and technical knowhow has increased. The quality service branding image has been established, enabling eye disease patients to be able to access treatment without having to leave the county. This changed the previous situation of patients having to wait for medical projects to arrive, and for upper level professional docctors to perform surgeries.

The reason that such changes took place is because the project emphasized the capacity building of human resources. In the past three years, the project organized training on eye health management and TOT Training, carried out a series of training on Cataract surgery, DR, Pediatric Eye Disease and Vision Center operation for eye health professionals in the Eye Department. These trained optometrists, doctors and nurses, including internists and endocrinologists became treasured human resources of local public health system. The project also organized primary eye health care training for 300 community and village doctors across the county, which usually lasted half to one day. The training consisted of theoretical and practical training, including knowledge about the eye structure, common eye diseases and treatment, such as the treatment knowledge on Cataract, DR, and RE, as well as practical skills in cleaning eyes, bandaging. At the end of the training, manuals and toolkits were distributed.

As a result of the training optometrists, doctors and nurses at Nanjian County hospital were able to deliver screening in the communities. During the rural market days in the non-busy seasons, the hospital screening team could screen more than 200 community members."(The screening team) had safely driven for more than 2,500 kilometers, providing eye health promotion and eye disease screening for rural elderly people, left behind children , and school students and teachers from 10 townships , 4 returned Overseas Chinese Communities , 85 villages and 36 schools.[14]" The screening service functions not only to identify patients and
make referrals for further treatment, but also promoted eye health information and knowledge, raised public awareness, provided face-to-face consultations on the site. The increased capacity and service scope of the county hospital was also promoted during the screening.

Nanjian County Hospital enjoyed good collaboration with the county Education Bureau. The project organized a series of participatory eye health training for school teachers and distributed relevant training manuals and students' information packages, "this enabled teachers to be more scientific in guiding students." Schools, in addition to cooperating with the county hospital to carry out school screening on eye diseases (almost all middle and primary schools in the county were covered in the past three years), also organized its own eye health promotion using eye health exercise , blackboard newsletter , thematic classes , and school-wide events such as "Love Your Eyes Day", and Parents Meetings . Nanjian County Hospital , joining hands with the county Education Bureau , advocates for schools , families , hospitals and society to come to consensus on shouldering together the responsibility to jointly improve the overall environment.

14 News Letter of Nanjian County People's Hospital, 2018.

Best Practice Case Stories:

Community Screening for rural vulnerable groups (Qiubei County)

Two doctors, three nurses and two interns from Qiubei County hospital of Wenshan Prefecture arrived at a village clinic in November 2018. The county hospital team had contacted the village doctor beforehand, and announced the upcoming event three times through the public broadcasting system in the village, one day prior to the screening, inviting villagers to come for free screening and consultation. Although the village is only a few dozen kilometers away from the county town, most of the villagers are elderly people over 65 and their grandchildren who are left behind by their working parents. Many of these elderly villagers had not ever had their eyes.

Bringing screening forms, medical equipment, and information, the health team arrived early in the village. Elderly villagers gradually arrived in groups. Nurses started registering individual information and checked their eye sight. Doctors started taking photographs and provide consultation sessions. For quite a few elder people who could only speak Zhuang Ethnic language, local village doctor and members of the health team who could speak Zhuang provided translation support. In half a day, the health team identified several patients with cataract and conjunctivitis. Doctors provided face-to-face consultations for villagers on the relationship between Diabetes and DR, how the eye surgeries are performed and costs of surgery. For patients who needed further treatment, doctors provided preliminary diagnosis notes and referals to the county hospital for checks and treatment.

Through the project-supported training, the county hospital organized community screening has developed its standardized procedure, trained a professional team and created a service delivery mechanism. With the increased service capacity and quality, the screening not only promoted hospital service, but also help hospital better understand grassroots level needs, which became popular with local people.

Case story of Patient: Xiao Long

4 Years old, male, Yi, Ethnic Group, lives in a village of Guangnan County, prenatal cataract patient (2018)

This is a Yi village of 250 people, located in the deep valley of mountains. All 60 households are enlisted poverty-stricken families. Up to mid-2018, all villagers' houses were built using mud wall and wood structures on the hillside, with dark living spaces and jammed living and production functions. The transportation was not convenient; the land resources were poor and scare, resulting in poor economic incomes of each household. These families live on the verge of poverty and are vulnerable to poverty caused by diseases.

At one year of age, Xiao Long was diagnosed by the county hospital with Cataract, Amblyopia, and nystagmus, and his family was told that his diseases could not be treated locally. His family members thought that this was his destiny and that nothing could be done. Xiao Long's parents, who were primary school graduates, have been migrant workers in factories in Guangdong Province. When he was about 3 years old, a medical team headed by a doctor from prefecture hospital (trained by the Project) that was carrying out community screening work identified Xiao Long. With the support of the "Seeing is Believing" project, Wenshan Prefecture Hospital performed a successful surgery for Xiao Long in July 2018.

After the surgery , Xiao Long 's vision improved significantly . Three months later , he recovered . Although still experiencing some inconvenience, he is now able to see things more clearly and play with his peers. The improvement in his vision was welcome news for the poverty -stricken family . His family members are now optimistic about his going to school in the future.

Case story of Patient: Grandma Li

71 years old, female, Yi Ethnic Group, lives in a village of Qiubei County, Cataract patient in both eyes, (2018)

Grandma Li could not see things clearly about half a year ago. She saw multiple shades of her two grandchildren when she looked at them, and dared not to go anywhere. Even going to the toilet was a stressful experience.

In early 2018, the filial son of Grandma Li sent her to Kunming for hospital treatment. After diagnosis for cataract, surgery on one eye was arranged. It cost the family 15,000 yuan (includes travel, hospital and treatment costs). For a family that depends primarily on migrant work for its income, significant outlay. The surgery was expensive. Travelling to the hospital for impact also prevented her sons from working.

Four months later, her son was told by neighbors that Qiubei County hospital was capable of performing Cataract surgery. He sent Grandma Li to county town for the surgery on her second eye. With a total expenditure of less than 3,000 yuan, grandma Li is able to see again.

The Project team learnt from Grandma Li that two elderly neighbors of her became blind due to lack of timely diagnosis and treatment. They suspect that their children thought that low vision at old age was common and did not think elderly people should be treated in Kunming . If they had known that in the county hospital , which is only half an hour 's drive away , that surgery was affordable, then the blindness of their elderly parents may have been avoidable.

The implementation of the Yunnan CRECM Project enabled capacity building of medical service and surgery techniques of health professionals in Qiubei County Hospital. The community screening service on eye health enabled the county hospital to promote the availability of eye department services of county hospital. As a result, elderly cataract patients like Grandma Li were able to seek medical treatment in the nearby hospital, saving significant amount of money, reducing economic burden and concerns of her family members. As a result, the convenience, the availability, the accessibility, the affordability of quality eye health service are all significantly improved, improving quality of life for elderly patients and bringing benefits for the general population and communities.

VII. References and Tools

1. VISION 2020: The Right to Sight
2. Universal Eye Health: A global action plan2014–2019, 2013, WHO.
3. WHO 2007 Everybody's Business：strengthening health systems to improve health outcomes– WHO's Framework for Action, Geneva: WHO
4. The Thirteenth National Five Year Plan on Eye Health (2016–2020)
5. State Council of the People's Republic of China: Health China 2030 Action Plan.
6. The official website of National Health Commission of the People's Republic of China, http://www.nhc.gov.cn/
7. The official website of Prevention and Treatment of Blindness of the People's Republic of China， http://www.moheyes.com/
8. The official website of Fred Hollows Foundation， https://www.hollows.org/au/home
9. You may want to contact The Foundation Kunming Office to ask for project related materials (training manuals and toolkits, evaluation reports)
   - Primary Eye Care Training Manual
   - Primary Eye Care Manual for Community Health Workers
   - Prevention and Control of Diabetic Retinopathy Manual
   - School Eye Health Education Manual (Teacher Book)
   - School Eye Health Education Manual (Student Book)
   - Practical Small incision cataract surgery Training Manual (for management)
   - Practical Small incision cataract surgery Training Manual (for trainees)
   - Community Screening Procedures and Planning