

Global Health Research Bulletin

Bureau of International Health Cooperation, National Center for Global Health and Medicine, Japan

IMPROVING AND STRENGTHENING BLOOD SAFETY IN MYANMAR

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Publication list of NCGM-BIHC is available from below:

<http://www.ncgm.go.jp/kyokuhp/research/results/index.html>

Green bar opens links to abstracts of articles on infectious diseases, red bar maternal & child health, blue bar health system and yellow bar others.

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HIGHLIGHTS

- Recruiting voluntary donors and their deferral by questionnaire contributed to blood safety in Myanmar.
- External quality assessment scheme improved quality of HIV testing.
- Major health programmes and health systems strengthening (HSS) need to find common-ground in Mekong countries.

Antimicrobial resistance is a fast-growing global health. Blood safety is essential for blood transfusion to save lives and improve health. Availability, safety and quality of blood products have been considered as one of the most important global health agendas. Nationally coordinated and sustainable blood program with appropriate system is required to provide safe and adequate blood and blood products in any countries.

NCGM has been supporting Blood Safety Program in Myanmar for a decade including operational research to compile the lessons learnt from field experiences. For instance, National Blood Center (NBC), Myanmar, introduced four strategic interventions to reduce the risk of transfusion-transmissible infections (TTIs) including i) recruiting voluntary donors by formulating the donor group, ii) donor deferral by questionnaire, iii) appropriate donor selection by computerized registration system and, iv) preparation of component blood. The impact of these interventions on HIV transmission was evaluated by analyzing existing data during 2000-2013¹. Accompanied by a significant increase of voluntary donors along with other interventions, the HIV screening-positive donor proportion was remarkably decreased from 1.02% in 2000 to 0.18% in 2013.

In addition, progress of National Blood Safety Program in Myanmar was described as "update on blood safety in Myanmar"². This is an update of the report of development of blood transfusion service in Myanmar published in 2009³. In our knowledge, this was the first scientific report that captured status of the program in an entire country.

The above two papers highlight the need of strategic process to improve and strengthen blood safety in resource-limited settings in order to ensure provision of universal access to safe, quality and efficacious blood

and blood products for transfusion, and also ensuring blood donor and patient safety.

References

1. Aung T, Nozaki I, Oo NN, Swe KK, Wada K, Yoshihara N. Reducing the risk of HIV transmission through blood transfusion in the National Blood Center, Myanmar. ISBT Science Series (in press) <http://onlinelibrary.wiley.com/doi/10.1111/vox.12173/abstract>
2. Aung T, Nozaki I, Oo NN, Swe KK, Wada K, Yoshihara N. Update on blood safety in Myanmar. Transfusion Today (in press)
3. Aung T: Status report of the blood transfusion services in Myanmar. Asian journal of transfusion science. 2009;3: 22-5. <http://www.ajts.org/article.asp?issn=0973-6247;year=2009;volume=3;issue=1;spage=22;epage=25;aulast=Aung>



Regular mass blood donation at Shwedagon Pagoda, Yangon, Myanmar.

New global health research projects of BIMC-NCGM

The Bureau of International Medical Cooperation (BIMC), National Center for Global Health and Medicine, Japan (NCGM) provides technical assistance to developing nations in Asia and Africa through Japan's Official Development Assistance and multilateral international organisations such as the World Health Organization (WHO).

In the fiscal year 2015 (starting 1 April), the BIMC launched three new global health researches: 1) process towards adoption of the post 2015 development agenda and its implementation structure and financing ; 2) comparative research of nurs-

ing institution in Japan and developing countries; 3) assurance of safety and quality of medical services in hospitals in developing countries; and 4) effective newborn care including nutritional intervention in resource-poor setting.

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MEET THE RESEARCHERS

Koji Wada, MD, MSc, PhD and Ikuma Nozaki, MD, PhD, of NCGM have been supporting Myanmar Ministry of Health to conduct operational research for better implementation of health program (see the headline column in p1). In an interview below, they talked on the vision the research group holds and the insights they obtained.

-How did you get involved in the HIV research in Myanmar?

Wada: Since operational research was included in the activities of the JICA project, we started to support our counterparts to analyze the existing data. It was the best timing to compile the lessons from the project after the 10 years implementation.

-How was the response of the research results in Myanmar?

Nozaki: I felt that our co-researchers appreciated our support for compiling the findings

from field activities, since there were only few reports. They are eager to have their own evidence for public health interventions.

-What interested you most in conducting research in Myanmar?

Nozaki: We supported operational research to evaluate the field activities. Our intention was to provide the evidence for our counterparts to be able to report their achievement persuasively.

Wada: Doing research is essential for improving the quality of medicine and public health services. We believe that it was a good opportunity to let young practitioners recognize the importance of research.



Ikuma Nozaki, MD, PhD (left) and Koji Wada, MD, MSc, PhD (right).

ENSURING ACCURATE TESTING FOR HIV IN MYANMAR

Early diagnosis of human immunodeficiency virus (HIV) infection is needed to ensure timely access to care and prevent disease transmission. The emergence of rapid tests that detect HIV antibodies in body fluids has enabled the expansion of HIV diagnosis in resource-limited settings. However, there are concerns regarding testing accuracy, quality and interpretation of algorithms. Accurate HIV tests are essential for patient care and outcomes.

The National Health Laboratory (NHL), Myanmar, introduced National External Quality Assessment Scheme (EQAS) for HIV testing with the support from JICA technical cooperation project. NCGM has been dispatched experts for this project and help NHL to implement EQAS effectively. After 10 years implementation, NCGM also supported NHL to publish the lessons learnt from EQAS program¹. The scheme was started in 65 laboratories in 2005 and had expanded nationwide to 347 laboratories in 2012. During the expansion of the scheme, laboratory response rates were greater than 90% and the

proportion of laboratories reporting at least one aberrant result improved from 9.2% in 2005 to 5.4% in 2012.

This report suggests the effectiveness of nationally organised external quality assessment of laboratory diagnosis. In our knowledge, there are only few reports about establishment of national EQA scheme for HIV testing, although importance of it has often been emphasized.

Reference

1. Kyaw LL, Nozaki I, Wada K, Oo KY, Tin HH, Yoshihara N. Ensuring accurate testing for human immunodeficiency virus in Myanmar. *Bull World Health Organ* 2015; 93: 42-46
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4271681/pdf/BLT.14.138909.pdf>



Observation in site visits to NEQAS-participating laboratory.

HSS AND DISEASE AND TARGET-SPECIFIC HEALTH PROGRAMMES IN MEKONG COUNTRIES

Health systems strengthening (HSS) is the lynchpin for the success and sustainability of various health programmes but the relationship between HSS and major disease and target-specific health programmes has not been well conceptualized. We assessed the relationship between HSS and Expanded Programme on Immunization (EPI), control of HIV, tuberculosis (TB) and malaria and maternal, neonatal and child health (MNCH) in Cambodia, Lao PDR and Viet Nam.

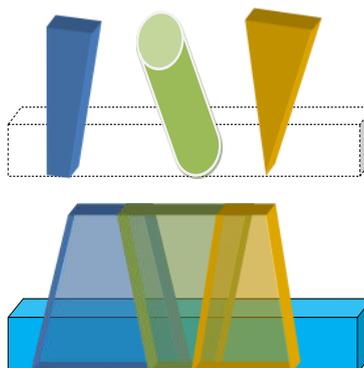
HSS contributed to the major health programmes in: A) streamlining sector planning and budget allocation; B) coordinating and harmonising programmes and players; and C) managing sector-common functions, i.e. health sector human resource development (HRD), health information system (HIS), sup-

ply chain management (SCM) and health financing and social security. The major health programmes, conversely, contributed to HSS in: A) resource and opportunity creation; and B) ensuring high service coverage with community penetration.

Challenges faced by HSS included: A) lack of a clear strategy and action tools for programme harmonisation; B) lack of national capacity to maintain coordinated HIS and SCM; and C) uncoordinated deployment of human, material and financial resources. Short-term programme demands and mid- to long-term health systems requirements need to be balanced in future health development.

Download link:

http://ncgmimc.net.jp/HP/library/tech_doc/tec08_2015.pdf



Disease and target-specific programmes should not be dissociated sub-systems (above) but rather they should be integrated upon a solid health systems base (below).