

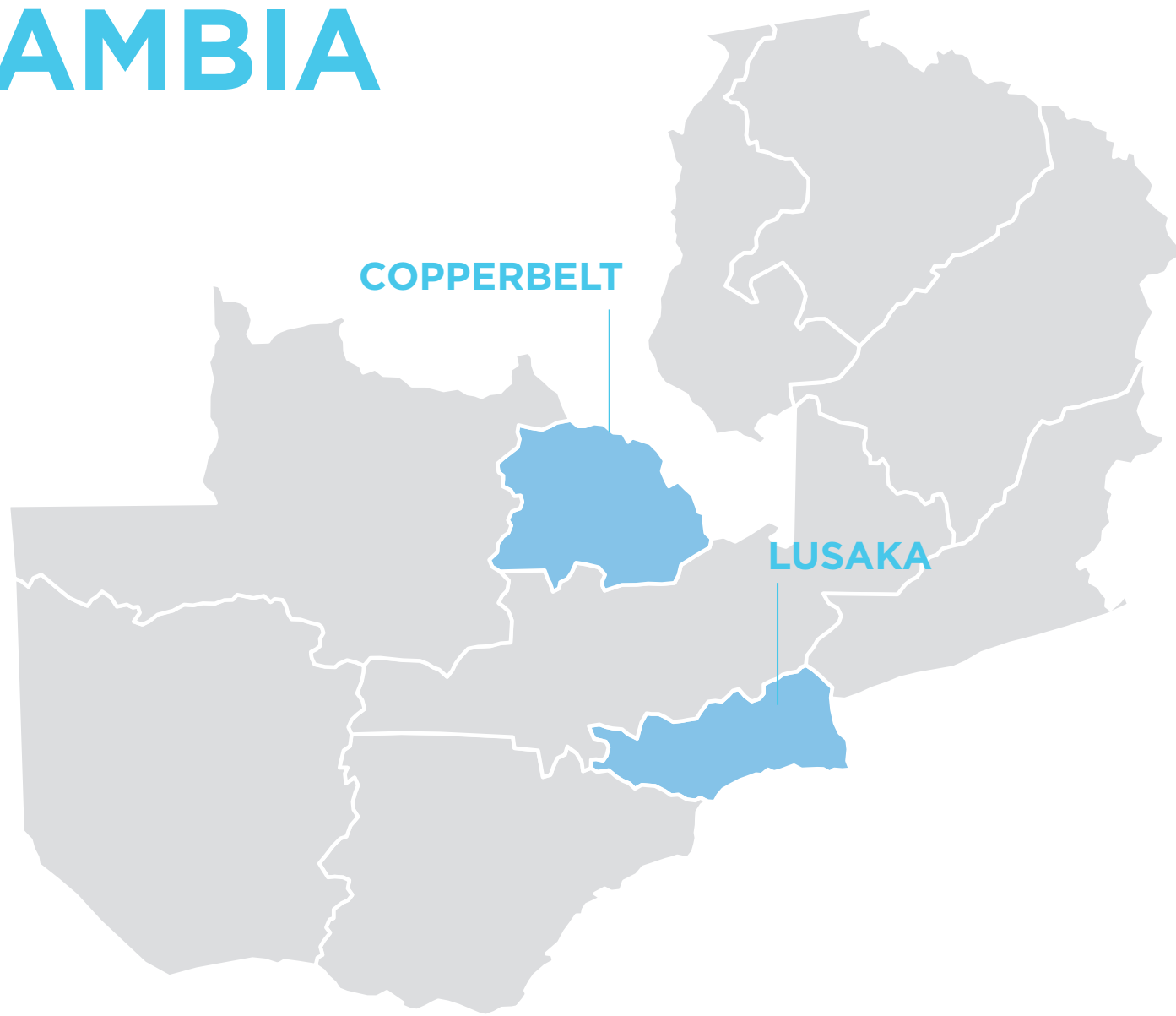
ENSURING MOTHER AND CHILD HEALTH AT THE HOSPITAL

WITH WASH IN HEALTH CARE FACILITIES: FOCUS ON AUTONOMOUS CHLORINE PRODUCTION IN ZAMBIA

FANNY BOULLLOUD¹, JÉRÔME VOILLAT¹, RAPHAEL GRASER¹
¹ ANTENNA FOUNDATION, GENEVA



ZAMBIA



INTRODUCTION

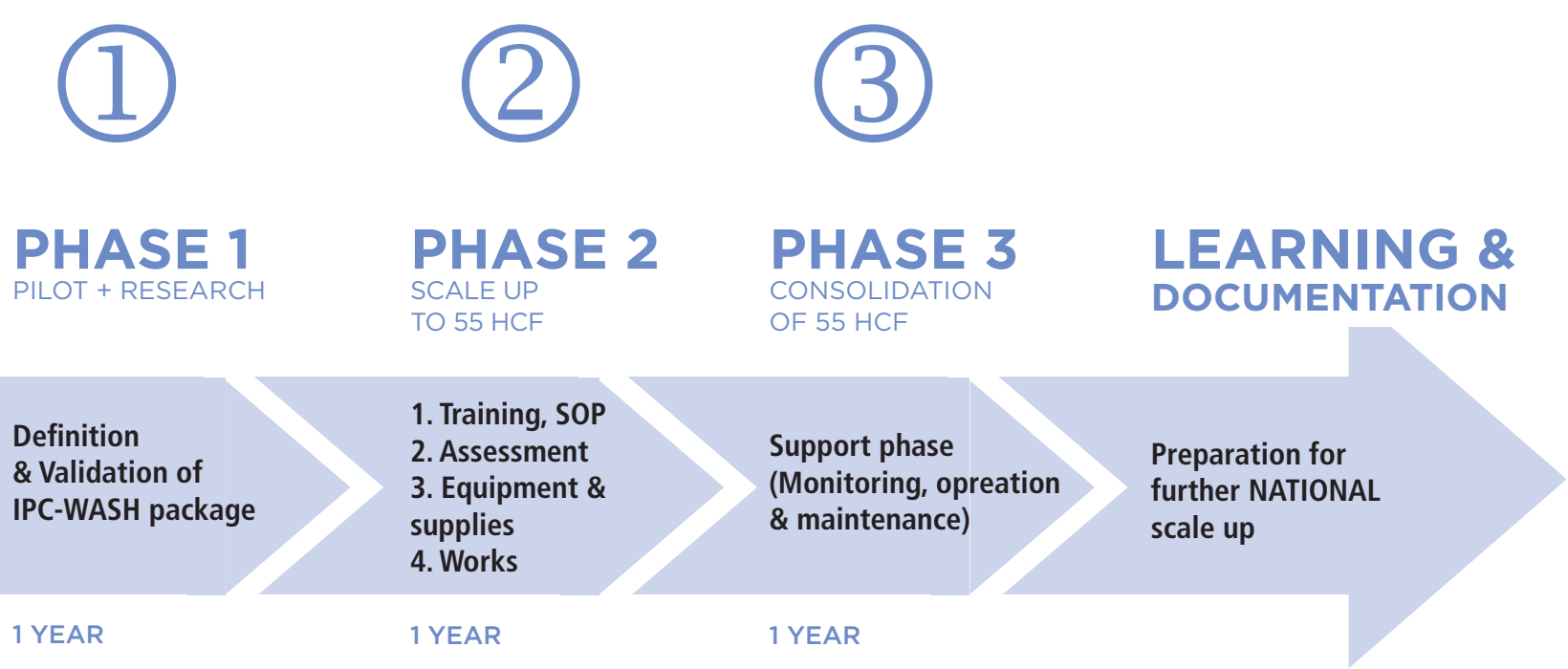
Amongst the 1'690 health care facilities (HCF) existing in the country, 80% are located in rural areas with more than 90% of all HCF water supply infrastructure requiring either repair or replacement (Namonje, 2017) putting especially mother and newborns at risk of being infected with hospital acquired diseases (UNICEF, 2018).

WASH infection prevention and control (IPC) package introduced by UNICEF to support local governments in improving access to hygiene in hospitals.



PILOT PROJECT

The **Ministry of Health of Zambia** with support from **UNICEF Zambia** designed in 2016 an integrated WASH package for infection prevention and control to mitigate health care-associated infections. The package was rolled out in 55 HCF in two provinces (Lusaka and Copperbelt) with EU funding to ensure improved conditions for mother and newborns (UNICEF, 2018).



PROCESS & TECHNOLOGIES FOR INFECTION PREVENTION CONTROL IN HEALTH CARE FACILITIES

WATA™ technology, developed by Antenna Foundation, is based on a simple process of electrolysis which transforms a salt water solution into sodium hypochlorite. The solution may be used directly to treat drinking water, clean surfaces or disinfect wounds.



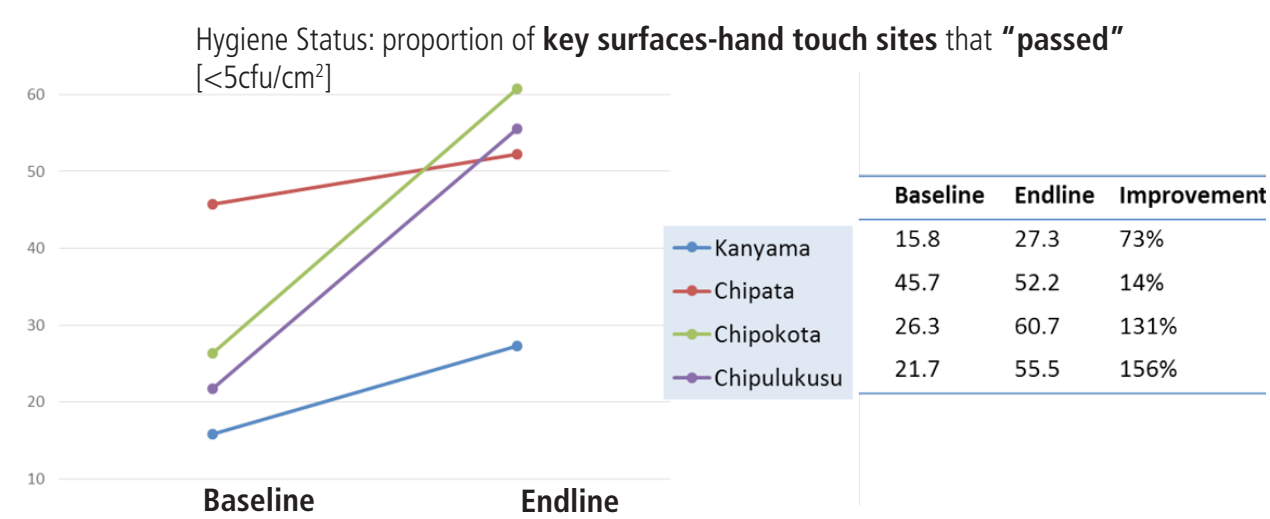
LESSONS LEARNT:

CHALLENGES

- Rotating staff and regular need for training refreshers
- Supply chain of reagents (Regular quality control of water with WataBlue™ is key to ensure safe water in HCF)
- M&E is required to follow improvement and shall be ensured by MoH
- Operation & maintenance of equipment

RESULTS

- Improved hygiene status on surface contamination (cf. baseline study Namonje, 2017)
- Increased use of chlorine (with proper M&E)
- Reduction of spending for bleach
- General satisfaction of HCF staff



CONCLUSIONS AND OUTLOOKS

- Innovative & efficient approach** for autonomous on-site chlorine production (for remote HCF): the value of WATA™ technology in improving hospital hygiene and guaranteeing high-quality disinfection at lower cost and in sufficient quantity was demonstrated
- Monitoring & Evaluation** to ensure the ongoing efficiency of the project is key (e.g. Mwater online application)
- Autonomy and self-management** of rural HCF achieved
- National scaling-up** of WASH-Infection Prevention and Control (more than 1'600 HCF)

IPC WATA™ IN THE WORLD

IPC IN BURKINA FASO

- 26 HCF in Burkina Faso equipped with WATA™ with Ministry of Health (2013-2015)
- Potential scale up to 2,000 HCF

IPC IN CHAD

- 80 HCF in Chad equipped with WATA™ with UNICEF (start 2018)

References

Abey, A., Lovers, B., Borges, A., Mergulha, F. & Simões, M. (2018). Current and emergent strategies for disinfection of hospital environments. *Journal of Antimicrobial Chemotherapy*, 61(12), 2718-2732.

Queney, P., Queney, W., Sauter, Y. & Nana, L. (2016). Prevention des infections nosocomiales Grâce au Dispositif de Production Local de l'Hypochlorite de Sodium: Burkina Faso. *Prevention and Control of Hospital Infections in Burkina Faso*. Retrieved from https://www.researchgate.net/publication/309101010_Prevention_and_Control_of_Hospital_Infections_in_Burkina_Faso

Namonje, L., Venzon, L. (2017). Scaling up an evidence-based package for Water, Sanitation and Hygiene (WASH) in Zambia to mitigate healthcare-associated infections (HAI). *Prevention and Control of Hospital Infections in Zambia*. Retrieved from https://www.researchgate.net/publication/309101010_Prevention_and_Control_of_Hospital_Infections_in_Zambia

UNICEF Zambia (2018). Chlorine, Commitment, and Collaboration are Making Zambian Healthcare Facilities Safe for Mothers and Newborns. Lusaka: UNICEF Zambia.

Contact

Antenna Foundation | Av. de la Grenade 24 | CH - 1207 Genève | wata@antenna.ch