The OPT-SMC project

The Optimising SMC (OPT-SMC) project is a four-year project (2018 – 2023) funded by the European & Developing Countries Clinical Trials Partnership (EDCTP). The project supports National Malaria Programmes (NMP’s) to conduct implementation research to improve delivery and impact of SMC.

The project is led by the University of Thiès (Senegal) in partnership with the London School of Hygiene and Tropical Medicine (UK), WHO-TDR (CH), Medicines for Malaria Venture (CH) and the NMPs of Benin, Burkina Faso, Cameroon, Chad, The Gambia, Ghana, Mali, Mauritania, Niger, Nigeria, Senegal and Togo.

News
The SMC Alliance welcomes the World Malaria Report 2022!

The report that shows that despite disruptions caused by COVID-19, national malaria programmes and partners largely ‘held the line’ against further setbacks to malaria control in 2021.

SMC in 2022

SMC programmes in 15 countries reached 45 million children in 2021. The updated map shows areas where 5 cycles of SMC are being piloted. In 2022, 16 countries implemented SMC programmes, including Mauritania implementing SMC for the first time. Pilot projects were also conducted in Uganda and Mozambique.

EDCTP visits the University of Thiès OPT-SMC team

EDCTP, the project’s funder, visited the OPT-SMC team at the University of Thiès in November 2022. EDCTP’s Chief of Operations, Pauline Beatty, and EDCTP Financial and Administrative Director Abdoulie Barry, were impressed with the project's scientific and financial management, and signed the "livre d’or" of the University: “Thank you for hosting our visit to University of Thiès. We have been very impressed by the excellent science and management, led by Professor JL Ndiaye. We see the opportunities to extend the research to grow the University to a leading institution in the region. Congratulations! »
Completed projects

These studies below have been completed and were presented at the ASTMH 2022 conference. The NMPs leading the projects are in the process of writing up the work for publication.

1. **Ghana**: SMC coverage and factors associated with uptake and adherence.
2. **Guinea**: Barriers to SMC uptake in mining areas in Guinea and an improved delivery approach.
3. **Nigeria**: Barriers and facilitators of SMC uptake in Nigeria: a qualitative study in 5 states.

Projects being implemented

Data collection for the studies below was carried out during this year’s SMC campaigns.

- 4. **Burkina Faso**: Evaluating the determinants of variations in SMC coverage in Burkina Faso.
- 5. **Cameroon**: Effectiveness and cost of using Community Household Leaders to improve SMC adherence in northern Cameroon.
- 6. **Mali**: Evaluating three approaches to improve uptake and adherence of SMC in Koulikoro Region, Mali.

7. **Benin**: Data management & analysis is ongoing for Benin’s project “Monitoring effectiveness of SMC in northern Benin during the 2020 & 2021 campaigns, using the case-control method”.
8. **Niger**: Data collection is ongoing for Niger’s project “Applying updated WHO SMC guidelines in Niger: timing, number of cycles, and age ranges at risk of severe malaria”.
Projects to be initiated

The following NMPs have submitted their projects for ethical review to the Ethics committee and are awaiting approval or will begin the development of data collection tools, respectively:


10. Togo: Defining optimal SMC strategies in Togo: timing and number of cycles, and age ranges at risk of severe malaria.

In these three countries (Chad, the Gambia and Guinea Bissau), the NMP teams are working with OPT-SMC to develop and finalise their Letters of Intent.

Country visits

Visit to Cotonou, Benin

In June 2022, Dr Susana Scott and Dr Fatimata Bintou Sall from OPT-SMC visited the NMP in Benin in June 2022. The purpose was to review the case control study and conduct training in epidemiology. It was great to finally meet Dr Cyriaque Affoukou, his NMP team and other project partners.
**Visit to Niamey, Niger**

Prof. Paul Milligan participated in a meeting held by Dr Hadiza Jackou of the NMP and partners in Niamey, June 2022, to discuss extensions to SMC to 5 cycles and for children up to 10 years being piloted in Niger, and options for seasonal implementation of the malaria vaccine.

**Visit to Lomé, Togo**

The objective of this trip was to review all SMC related studies already performed in the country and discuss their conclusions to identify remaining research gaps for prioritization within the OPT-SMC project.

Dr Mamessilé Agba-Assih the assistant Minister of Health in charge of universal health coverage received the OPT-SMC delegation in her office and recognized the importance of operational research to improve programmes’ implementation.

**Visit to Conakry, Guinea**

In Conakry, Dr Loua and Paul Milligan met with the NMP staff and with the director of the Expanded Programme on Immunization in Guinea Dr Gassim, to discuss options for seasonal implementation of the malaria vaccine and how introduction of the vaccine could be evaluated.
Writing workshop in Nigeria

The NMP of Nigeria held a writing workshop with their staff, facilitated by Prof Dahiru Tukur, Ahmadu Bello University, and Paul Milligan from LSHTM, to prepare the findings from the NMP's qualitative study of barriers and facilitators of SMC uptake, for publication.

Events

First face to face project meeting at ASTMH in Seattle, USA

The OPT-SMC team organized a lunchtime session at ASTMH. Eight of the 13 project countries attended. Prof Jean Louis Ndiaye gave an update on the successful projects that OPT-SMC is supporting and led a discussion on how to select the optimal number of SMC cycles in a district; when would it be a good time to stop SMC in areas that have seen low malaria rates, and measures that may need to be put in place after stopping; and a discussion of seasonal implementation of the RTS,S/AS01 malaria vaccine to optimize its impact.

Virtual workshop on research

A four-day virtual workshop in December introduced epidemiological study designs, qualitative research methods, and economic evaluation, the first in a series of workshops on implementation research.
New Resources

ASTMH posters and papers (including two NMCP-led posters)

**Facilitators and Barriers to SMC Uptake in Nigeria: A Qualitative Approach**


Qualitative research was undertaken by the NMP after the 2021 campaign to ensure that community perspectives inform future planning of SMC delivery in Nigeria.

**Improving Delivery of Seasonal Malaria Chemoprevention In mining areas in Guinea: findings of implementation research.**

Camara, B; Lama, K. E.; Haba, M.; Diop, N.; Mara, F; Camara, K. A; Mbaye, I; Ndiaye, J.L.; Scott, S.; Poku-Awuku, A.; Tchouatieu, A.; Merle, C.; Milligan, P.; Loua, K.; Barry, Y.

The NMP undertook qualitative research to understand barriers to SMC in mining communities, developed an improved delivery strategy through a participatory approach, which was piloted in 2021.

**Optimizing the impact of SMC in southern Senegal**

Ndiaye, J.L; Tairou, F.; Seck, A.; Manga, I.A.; Kande, S.; Sougou, N.M; Gadiaga, T.; Milligan, P.

WHO guidelines updated in 2022 recommend that the number of SMC cycles should be adapted to the local seasonal pattern of malaria, and the age range for SMC should reflect ages at risk of severe malaria. This study developed an approach to use routine data to apply these guidelines in order to optimize the impact of SMC in Senegal.
The use of video job-aids to improve the quality of Seasonal Malaria Chemoprevention delivery


Facilitators and Barriers to SMC Uptake in Nigeria: A Qualitative Approach


Looking ahead

In June 2022, WHO introduced new chemoprevention guidelines which recommend that the number of SMC cycles and the age range of protected children be adapted to the local epidemiology. This enhanced guidance opens new opportunities to support countries in expanding SMC's impact.

As new interventions, including the RTS, S/AS01 malaria vaccine, and Perennial Malaria Chemoprevention (PMC), become available, implementation research will be needed to optimize delivery for effectively protecting against malaria. The OPT-SMC project has
already begun discussions with countries on technical support they may need.