

Schistosomiasis in South Sudan: integrating presumptive neglected tropical disease treatment into primary healthcare

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Ethics

This study was reviewed and approved by the MSF and South Sudan Ethics Review Board Committees.

Photo: MSF (Frederick Noy)

*The authors declare no conflict of interest



Update: on May 3rd, the MSF hospital pharmacy in Old Fangak was bombed and burned to the ground. The nearby Old Fangak market was also bombed. At least seven people were killed, and 26 injured.

We strongly condemn this and other recent, intentional attacks on healthcare in South Sudan, and stand in solidarity with our colleagues and patients in Old Fangak.







Photo: MSF (Florence Miettaux)



1.4M
people affected by
floods¹



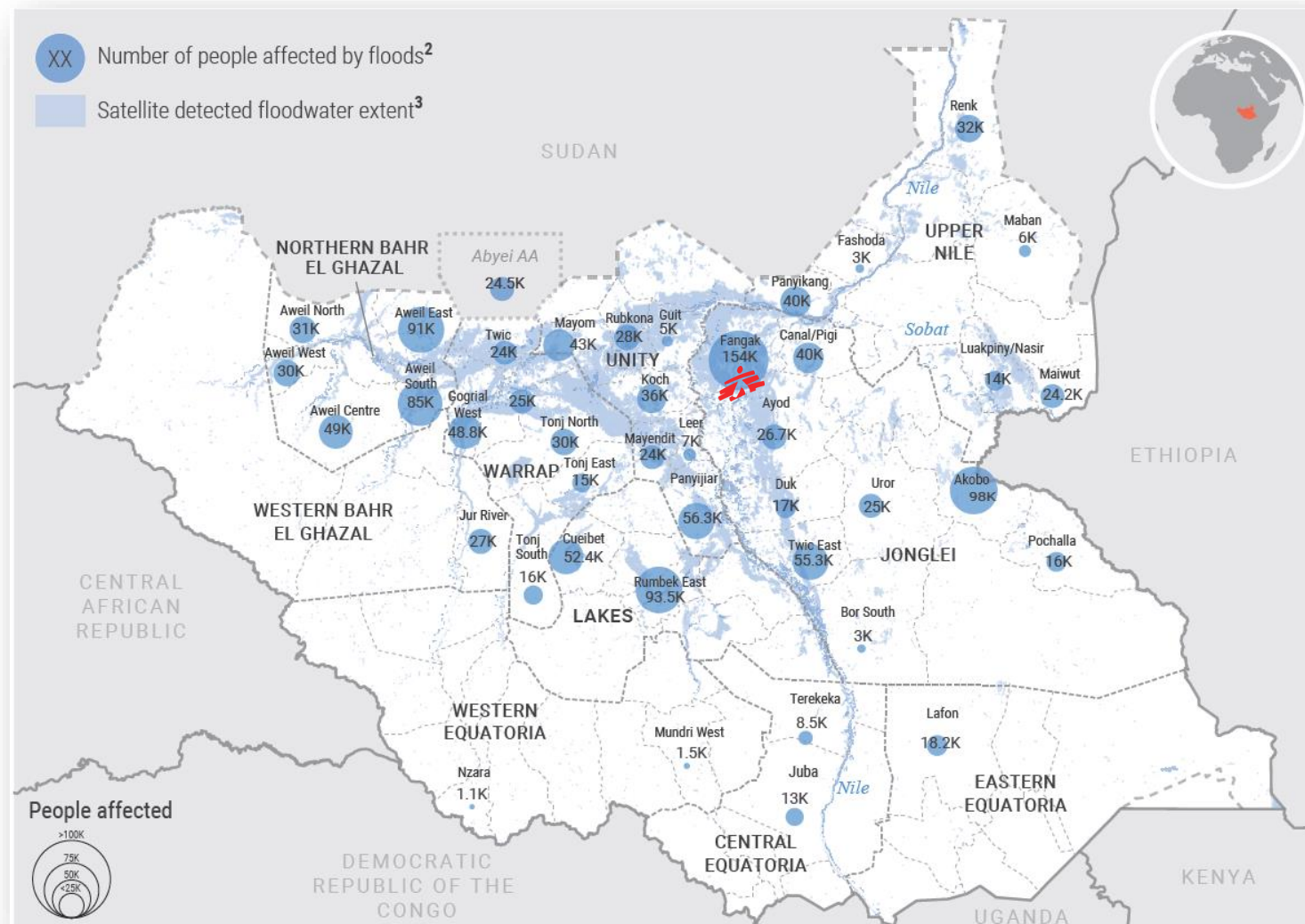
379K
people displaced
by floods¹



44
counties and Abyei
affected by floods

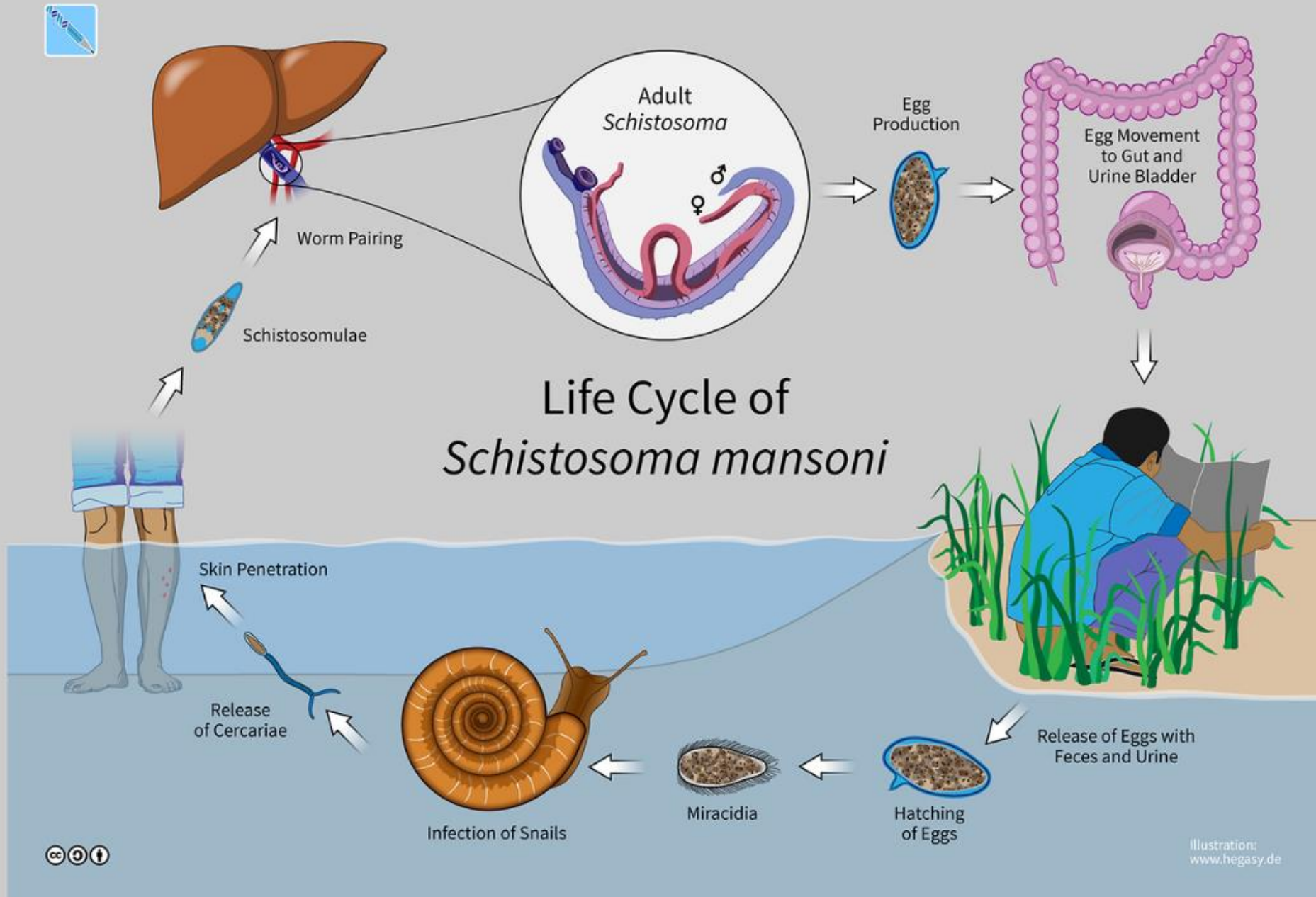


22
counties and Abyei
reporting flood displacement

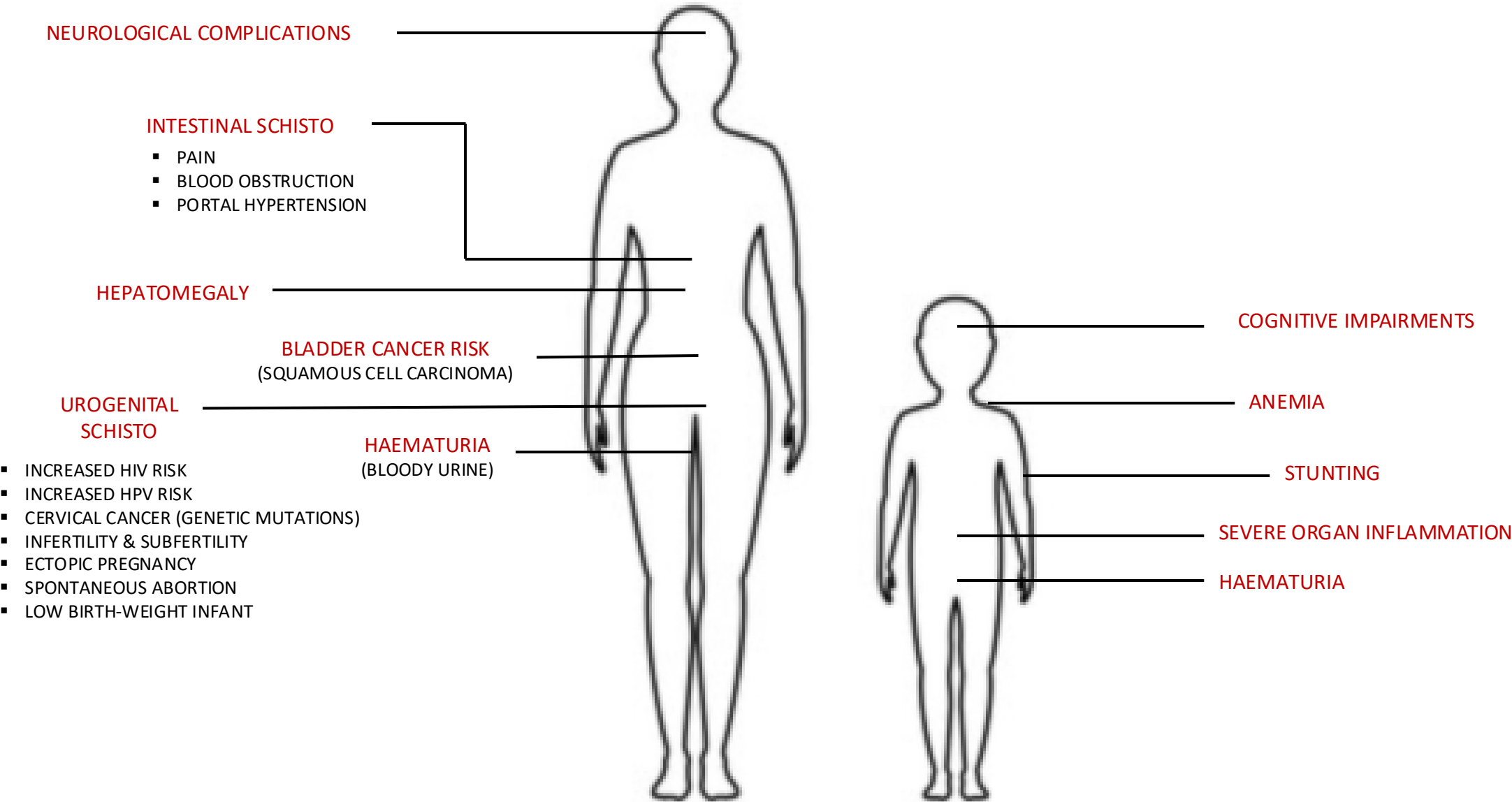


- The MSF Old Fangak project, in the center of Al-Sudd swamp (one of the world's largest wetlands) was opened in 2014 due to an influx of 20,000+ IDPs.
- Activities include a hospital and external activities.
- A study published in 2022 determined Old Fangak had the **highest school prevalence for *S. haematobium* in the nation at 84.4% and 34% for *S. mansoni*.**
- Due to many obstacles, **the region does NOT benefit from WHO recommended once yearly Praziquantal Mass Drug Administration (MDA).**



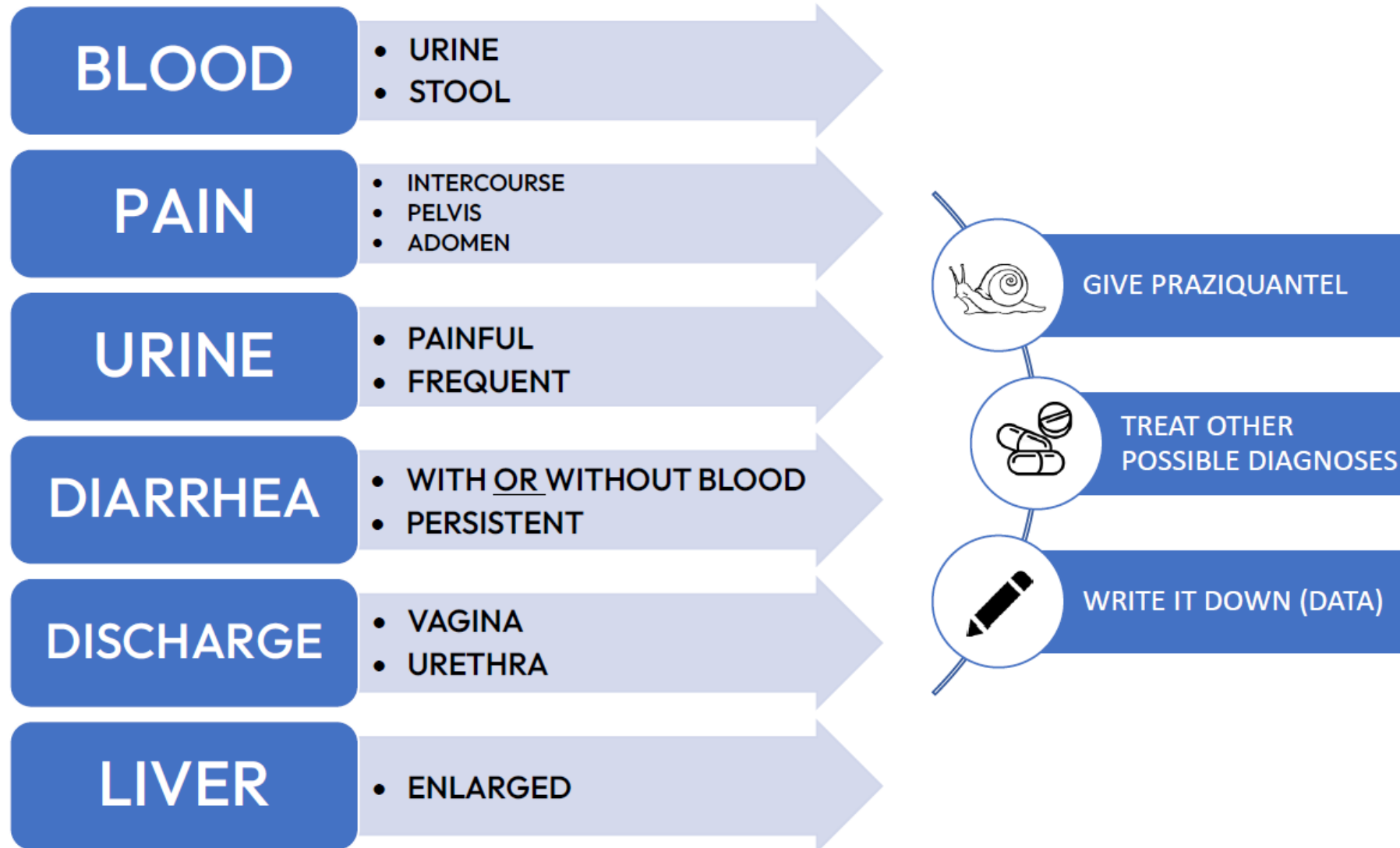


CLINICAL SEQUELAE: SCHISTOSOMIASIS



SYNDROMIC CONCURRENT ANTIMICROBIAL & PRAZIQUANTEL ADMINISTRATION (SCAPA)

SYNDROMIC CONCURRENT ANTIMICROBIAL & PRAZIQUANTEL ADMINISTRATION (SCAPA)



METHODS

- All clinical staff received training on the new treatment model and study data collection.
- Tally sheets tracked patients screened (for symptoms, +/-random lab sampling) in the inpatient (IPD), outpatient (OPD), and maternity (ANC) departments & health outreach activities.
- Praziquantel consumption data recorded using MSF pharmacy tracking tools.
- Ethics approval was obtained from MSF-ERB + South Sudanese MoH Research Ethics and Review Board.



Old Fangak Hospital, South Sudan
Photo: MSF (Brienne Prusak)

RESULTS

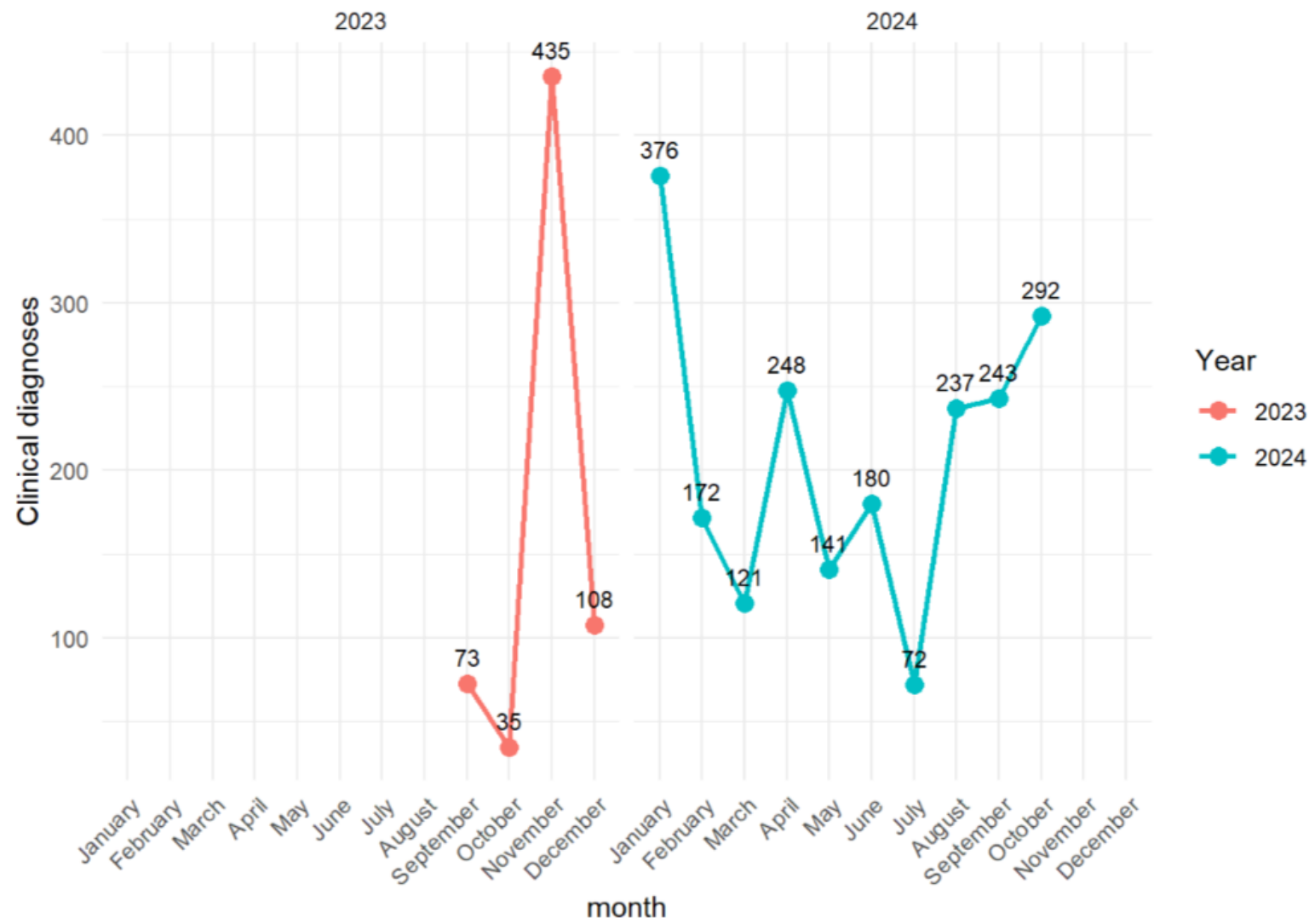


Figure 1: Clinically diagnosed cases of schistosomiasis using SCAPA algorithm; Sept 2023 –Nov 2024; Old Fangak, South Sudan.

RESULTS

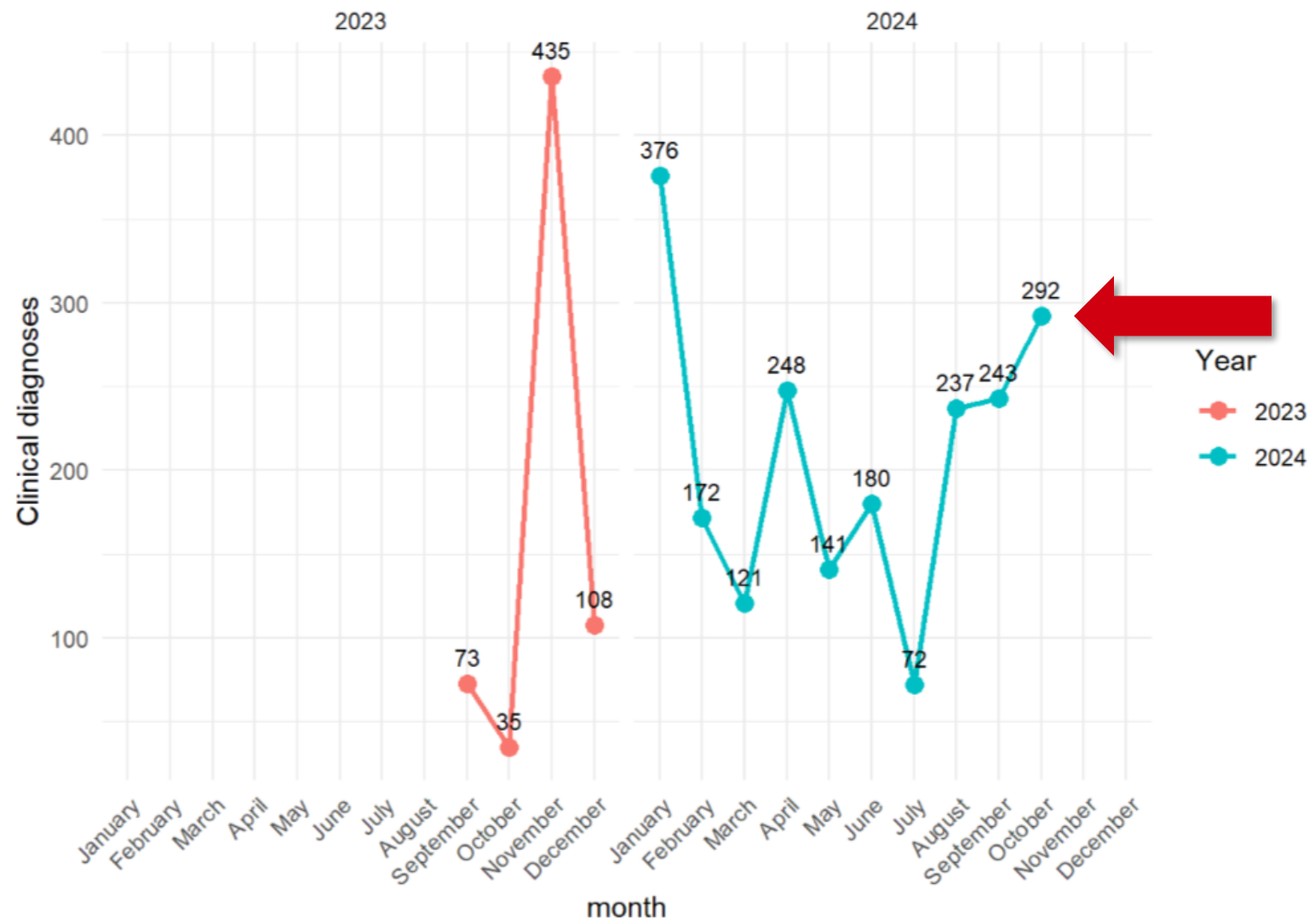


Figure 1: Clinically diagnosed cases of schistosomiasis using SCAPA algorithm; Sept 2023 –Nov 2024; Old Fangak, South Sudan.

CHALLENGES

- Case Definition - Difficulty suspecting schisto except in cases of haematuria
- Data collection - documentation difficulties across services and over time (needed to SIMPLIFY++)
- Staffing - High turnover of staff, esp International Mobile Staff in managerial positions, no focal point
- Concurrent epidemics - Hepatitis E, cholera, measles) + other research **on top of** already high patient volume

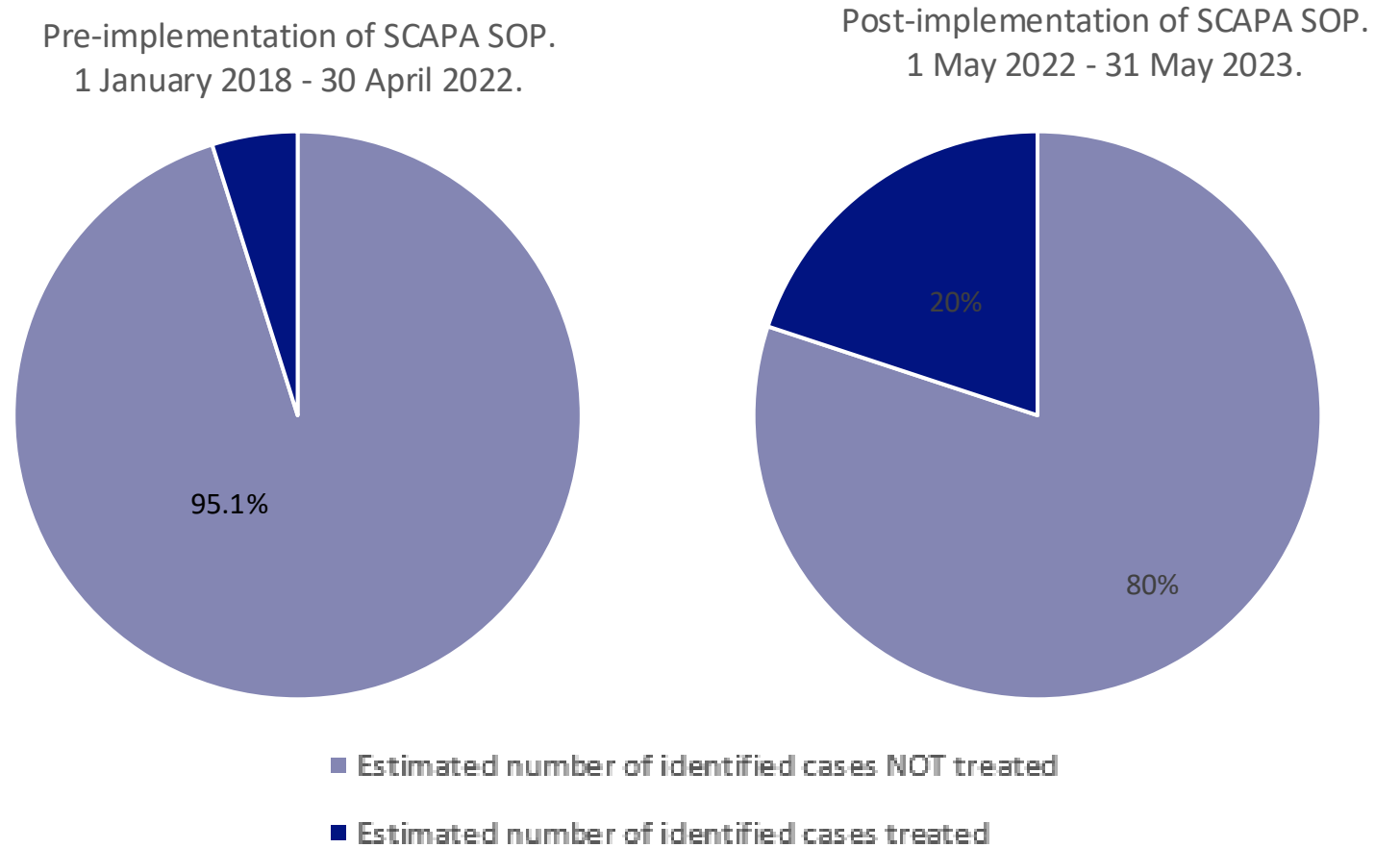
OVERCOMING CHALLENGES

- Simplification of SOPs and protocols
- Supplementary trainings, job aids, desk references
- Bespoke data collection tools for IPD vs OPD vs ANC vs outreach
- Regular follow-up from HQ, coordination, epi staff

RESULTS

There were modest improvements over the year, but most patients who present with schistosomiasis symptoms are still not receiving praziquantel...

Figure 2: Patients receiving PZQ treatment among all suspects

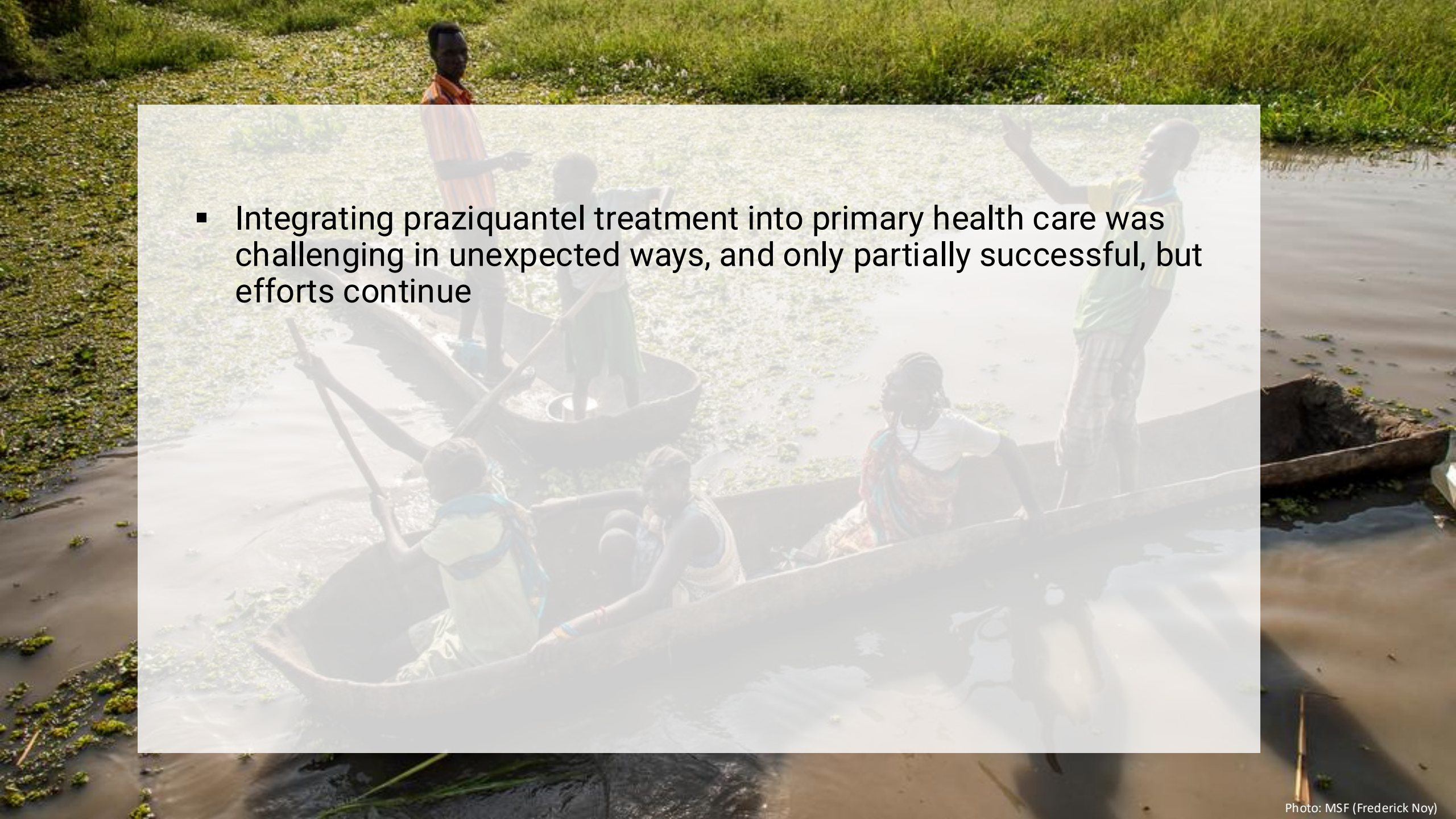


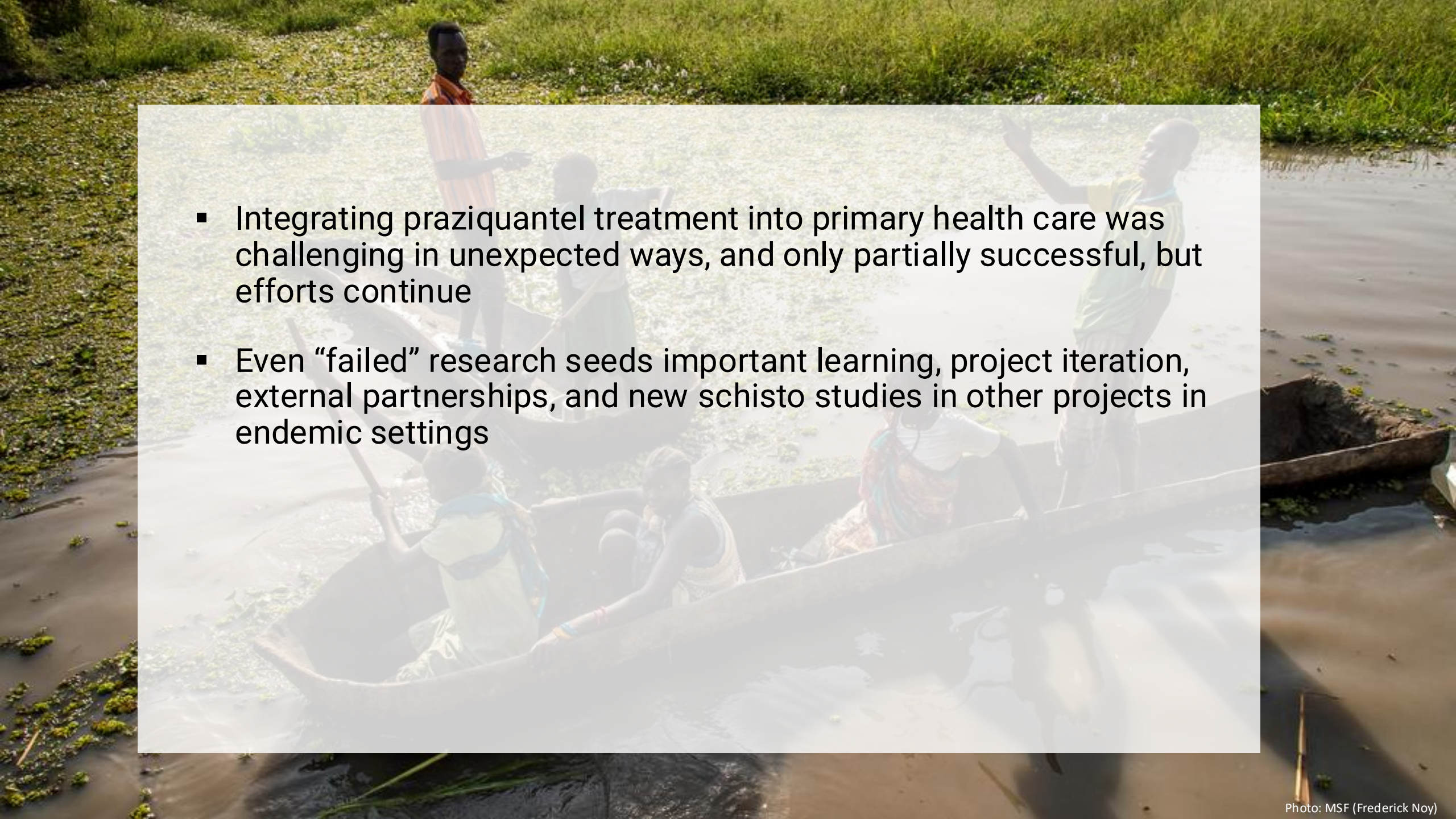


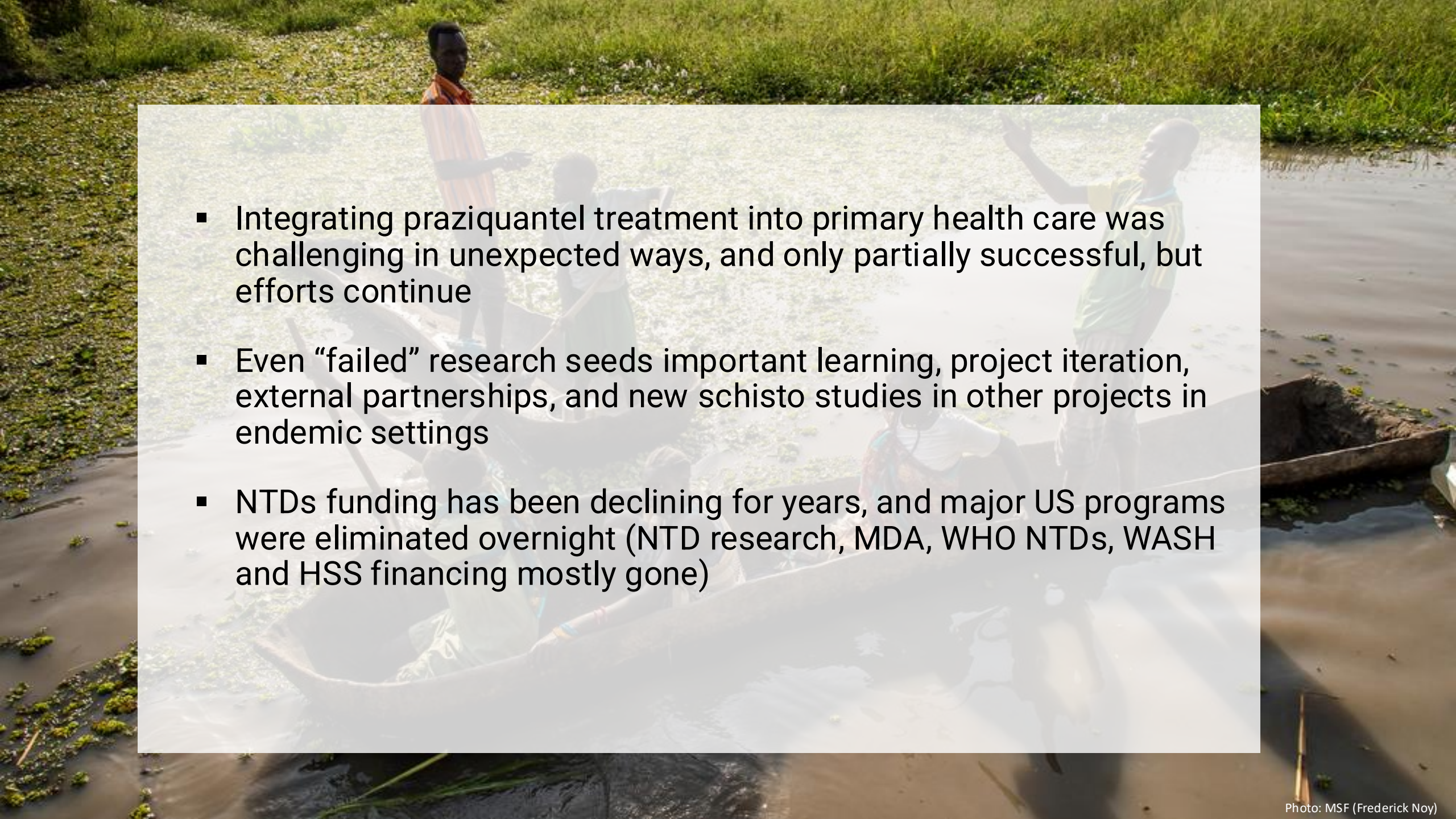
STUDY LIMITATIONS

- No retrospective schistosomiasis data documented pre-SCAPA; pharmacy consumption data not specific to different health services (OPD, IPD, etc.)
- Implementing systematic laboratory confirmation, difficulties were over & above the lack of sensitivity & specificity inherent to the diagnostic test used.
- Schisto study data not consistently reported/documented despite SIMPLIFYING as much as possible.
- Data & laboratory analysis from outreach activities were not possible due to distances and additional challenges.



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- Integrating praziquantel treatment into primary health care was challenging in unexpected ways, and only partially successful, but efforts continue

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- A photograph of a group of people in a wooden boat on a body of water. The boat is filled with several individuals, some of whom are using long poles to navigate. The water is calm, and the background shows a grassy shoreline. A semi-transparent white text box is overlaid on the center of the image, containing two bullet points.
- Integrating praziquantel treatment into primary health care was challenging in unexpected ways, and only partially successful, but efforts continue
 - Even “failed” research seeds important learning, project iteration, external partnerships, and new schisto studies in other projects in endemic settings

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- A background photograph showing a group of people in a river. One person is standing on the grassy bank, while others are in the water, some using long poles to navigate. The water is murky and brown. The scene is outdoors with green grass on the bank.
- Integrating praziquantel treatment into primary health care was challenging in unexpected ways, and only partially successful, but efforts continue
 - Even “failed” research seeds important learning, project iteration, external partnerships, and new schisto studies in other projects in endemic settings
 - NTDs funding has been declining for years, and major US programs were eliminated overnight (NTD research, MDA, WHO NTDs, WASH and HSS financing mostly gone)

Conclusions & Next Steps

- Integrating praziquantel treatment into primary health care was challenging in unexpected ways, and only partially successful, but efforts continue
- Even “failed” research seeds important learning, project iteration, external partnerships, and new schisto studies in other projects in endemic settings
- NTDs funding has been declining for years, and major US programs were eliminated overnight (NTD research, MDA, WHO NTDs, WASH and HSS financing mostly gone)
- Integrating NTD care into larger disease control efforts and routine health services, rather than on vertical programs, allows us to continue NTD efforts even within a new funding and programming reality



Thank you to all of our colleagues in the Old Fangkak project and OCP South Sudan mission, as well as Amaya Bustinduy and others at LSHTM

Thank You