Author Reflexivity statement

1. How does this study address local research and policy priorities?

The in-country research partners had all previously conducted research on sexual and reproductive health and rights in their countries. The impact of the Global Gag Rule (GGR) in each country was a topic of interest for all research partners. CREHPA and APHRC were already involved in related research; INSPC had already collaborated with the NGO that was most significantly impacted by GGR. This study afforded local researchers the opportunity to better understand the weak availability of sexual and reproductive health (SRH) services in their countries as well as weak points in SRH supply chains; and to identify lessons learned for the future.

2. How were local researchers involved in study design?

As mentioned above, the in-country research institutions have extensive experience with SRHR research. Therefore, research team members from each of the four institutions were involved in developing the study. EM, SEC and TM developed an overall framework for the methodology; each country team then adapted the methodology to the context in each country. AK, AT and JT led the process in Nepal; KJ and BAU led the process in Kenya; MAR, MJJR, MRR and LR led the process in Madagascar.

3. How has funding been used to support the local research team(s)?

Columbia University's Global Health Justice and Governance Program (GHJG) received grant funding for this research from the William and Flora Hewlett Foundation and the David and Lucille Packard Foundation. GHJG issued sub-awards to each in-country research partner to adapt the methodology developed by GHJG for their context, recruit and interview participants, code qualitative data, and collaborate with GHJG on data analysis, writing, and disseminating results.

4. How are research staff who conducted data collection acknowledged?

Several co-authors who are staff members at APHRC (KJ), CREHPA (AK and JT), and INSPC (MJJR and MAR) conducted semi-structured qualitative interviews with research participants in the three countries. APHRC, CREHPA, and INSPC also hired additional interviewers who did not participate in the study beyond data collection. We acknowledge the hard work and dedication of all interviewer teams in the acknowledgements section. All who were involved in study design and data analysis are included as authors, with each's role described in the authors' contributions statement.

5. How have members of the research partnership been provided with access to study data?

Each LMIC partner co-owns, with GHJG, the data they collected. All partners have access to the data. All authors were involved in the writing of this manuscript, reviewed multiple drafts and approved the final draft.

6. How were data used to develop analytical skills within the partnership?

GHJG team members worked with in-country teams to co-develop codebooks, provided feedback to and answered questions asked by in-country teams as they led data coding, and shared data analysis responsibilities. The GHJG team also trained in-country team members to use Nvivo for data coding if they had not previously used this software or coded qualitative data.

7. How have research partners collaborated in interpreting study data?

As described above, each in-country partner took responsibility for coding qualitative interview data, and then shared coding-queries and transcripts with GHJG. GHJG researchers collaborated with APHRC, CREHPA, and INSPC researchers on country-specific data analyses and interpretation through a series of virtual and in-person meetings (where possible, prior to the COVID-19 pandemic) during which we discussed emerging themes, identified illustrative quotes, and outlined country-specific manuscripts. All research partners reviewed and provided feedback on the cross-country analysis and data interpretation led by GHJG researchers.

Additionally, GHJG hosted a GGR Research and Advocacy Workshop in 2019, to facilitate cross-country learning, build research capacity, and strengthen GGR research to advocacy pipelines in each country. Over the first two days of the workshop, members of the APRHC, CREHPA, GHJG and INSPC teams participated in a cross-country research meeting, where incountry teams presented preliminary results, shared challenges and lessons learned related to data collection, coding, and analysis, discussed data interpretation in each country context, and established timelines and work plans for country-specific manuscripts.

8. How were research partners supported to develop writing skills?

Each research team included a senior researcher who had previously authored journal articles. These senior researchers supported the early career members of their team on writing. Each country team led the writing of a country-specific manuscript; GHJG researchers led the writing of this cross-country manuscript.

9. How will research products be shared to address local needs?

The second half of the aforementioned GGR research and advocacy workshop focused on using data from the GGR study to bolster national level policy, advocacy, and movement building in the three research countries. This component of the workshop also included service delivery, legal, and advocacy experts from the three countries and the U.S. With the help of a consultant facilitator, participants discussed the varied SRH advocacy contexts and priorities across the three countries, learned from each other about ongoing GGR harm mitigation and advocacy, and jointly strategized on how to "translate" GGR research findings into advocacy messages for their unique goals.

Since this workshop took place, all country partners have designed local dissemination events and activities—often in collaboration with local advocacy organizations—to share and utilize country-specific findings from this research for local policy and advocacy priorities, such as reducing country dependency on foreign aid and increasing national funding for sexual and reproductive health services and commodities. For this dissemination, they have produced data

briefs, blogs, factsheets, and/or advocacy toolkits in collaboration with GHJG and other incountry partners. In Madagascar, research products were translated into French. All peerreviewed articles presenting findings from the research, including this manuscript, were published open access to facilitate sharing results with local researchers, advocates, journalists, policy-makers, health workers, and public health program implementers.

How is the leadership, contribution and ownership of this work by LMIC researchers recognised within the authorship?

All LMIC authors contributed equally to this cross-country manuscript, and are thus listed in alphabetical order. EM and SEC, from the GHJG team, are listed as first and last author. This reflects their learning from across the three countries, given their role collaborating with all incountry partners on the research design, implementation, and data analysis in each country. Of the 14 co-authors listed on this manuscript, 10 are LMIC researchers.

In 2020, this research team produced a special issue of the journal *Sexual and Reproductive Health Matters*, guest edited by TM and AT. Each country team developed a manuscript with the country-specific results for this special issue; each of those papers had an LMIC first author (listed below).

- Ushie BA, Juma K, Kimemia G, Magee M, Maistrellis E, McGovern T, et al. Foreign assistance or attack? Impact of the expanded Global Gag Rule on sexual and reproductive health and rights in Kenya. Sex Reprod Health Matters. 2020 Dec 17;28(3):23–38.
- Ravaoarisoa L, Razafimahatratra MJJ, Rakotondratsara MA, Gaspard N, Ratsimbazafy MR, Rafamantanantsoa JF, et al. Slowing progress: the US Global Gag Rule undermines access to contraception in Madagascar. Sex Reprod Health Matters. 2020 Dec 17;28(3):39–53.
- Tamang J, Khanal A, Tamang A, Gaspard N, Magee M, Schaaf M, et al. Foreign ideology vs. national priority: impacts of the US Global Gag Rule on Nepal's sexual and reproductive healthcare system. Sex Reprod Health Matters. 2020 Dec 17;28(3):5–22.

11. How have early career researchers across the partnership been included within the authorship team?

Each of the four institutions included at least one early career researcher (KJ, GK, AK, KT, MAR, MJJR, ACM) in the authorship team. They participated in study design, data collection and analysis (KJ, GK, AK, KT, MAR, MJJR, ACM), drafting (ACM) and review of the manuscript (KJ, GK, AK, KT, MAR, MJJR).

12. How has gender balance been addressed within the authorship?

Eight of the authors identify as women (EM, AK, GK, TM, ACM, LR, JT and, SEC), and six identify as men (KJ, MAR, MJJR, MRR, AT, and BAU).

13. How has the project contributed to training of LMIC researchers?

The GHJG and in-country teams collaborated closely throughout the study design, implementation and analysis to strengthen capacity of junior researchers. In each of the three

study countries, GHJG and the in-country partner collaborated on the following activities intended to grow the capacity of LMIC researchers:

- We co-developed and conducted research trainings for the interviewer teams that included sessions on study methodology, data collection and security, confidentiality, and informed consent. The trainings also included considerable discussion of the GGR, and the challenges of gathering data on such a complex issue.
- We co-developed qualitative codebooks, passing drafts back and forth over email and participating in regular calls to discuss questions and make joint decisions about codes, definitions, and procedures for applying codes to the data.
- GHJG researchers traveled to each research country to support country teams' capacitybuilding goals related to data analysis and interpretation. During these trips, GHJG staff developed and shared resources on qualitative coding, Nvivo software, and data triangulation; facilitated practice coding sessions; and participated in working meetings with in-country researchers, during which we read and discussed transcripts, areas of confusion, attribution of findings to the GGR and/or other phenomena, and identified areas for follow up.

14. How has the project contributed to improvements in local infrastructure?

This project has not directly contributed to improvements in local infrastructure.

15. What safeguarding procedures were used to protect local study participants and researchers?

All interviews were conducted in private locations and all data were de-identified or anonymous. No identifiers were used during analysis. Local researchers were involved throughout the process to ensure that the study was conducted safely and ethically.