


Does global health governance walk the talk? Gender representation in World Health Assemblies, 1948–2021

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ABSTRACT

Background While an estimated 70%–75% of the health workforce are women, this is not reflected in the leadership roles of most health organisations—including global decision-making bodies such as the World Health Assembly (WHA).

Methods We analysed gender representation in WHA delegations of Member States, Associate Members and Observers (country/territory), using data from 10 944 WHA delegations and 75 815 delegation members over 1948–2021. Delegates' information was extracted from WHO documentation. Likely gender was inferred based on prefixes, pronouns and other gendered language. A gender-to-name algorithm was used as a last resort (4.6%). Time series of 5-year rolling averages of the percentage of women across WHO region, income group and delegate roles are presented. We estimated (%) change ±SE of inferred women delegation members at the WHA per year, and estimated years±SE until gender parity from 2010 to 2019 across regions, income groups, delegate roles and countries. Correlations with these measures were assessed with countries' gender inequality index and two Worldwide Governance indicators.

Results While upwards trends could be observed in the percentage of women delegates over the past 74 years, men remained over-represented in most WHA delegations. Over 1948–2021, 82.9% of delegations were composed of a majority of men, and no WHA had more than 30% of women Chief Delegates (ranging from 0% to 30%). Wide variation in trends over time could be observed across different geographical regions, income groups and countries. Some countries may take over 100 years to reach gender parity in their WHA delegations, if current estimated trends continue.

Conclusion Despite commitments to gender equality in leadership, women remain gravely under-represented in global health governance. An intersectional approach to representation in global health governance, which prioritises equity in participation beyond gender, can enable transformative policymaking that fosters transparent, accountable and just health systems.

INTRODUCTION

Global and national health leadership continues to be dominated by men. While an estimated 70% of health workers are women, this percentage is not reflected in higher-wage healthcare occupations, nor the leadership roles of most international and national health organisations.¹ This has continued to be illustrated during the COVID-19 pandemic; a study on gender representation in national COVID-19 task forces, revealed that only 3.5% of 115 identified COVID-19 decision-making and expert task forces had gender parity, and 85.2% were majority men.² Additionally, while the economic contribution of women in global health is valued at US\$3 trillion annually, half of women's contribution is in the form of unpaid care work. The pay gap between men and women in health-care remains around 28%.¹ Women from low-income and middle-income countries are particularly under-represented in global health governance, holding less than 5% of senior leadership roles.³ Only 20% of global health institutions exhibit gender parity on their board of directors, and a mere 25% show gender parity at the senior management level. The current situation in global health leadership is reflected in broader national government positions. Over the last 5 years (as of April 2022), only 14% of countries had a woman as head of government, 21% as head of state and only 42% as Ministers of Health (*own analysis*).

Collective global efforts have led to greater advocacy for policies that have aimed to increase the status of women and girls—including their participation in political processes and governance. Yet, the overall

WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ Women are historically under-represented in global health leadership positions, despite comprising over 70% of the workforce.
- ⇒ Numerous commitments to gender equality in leadership, including global health governance, have been made at the international and multilateral levels (eg, the Beijing Platform).

WHAT THIS STUDY ADDS

- ⇒ Between 1948 and 2021, 8% of the delegations to the annual World Health Assembly (WHA) have demonstrated gender parity (45%–55% women), while over 80% of delegations have been composed of a majority of men.
- ⇒ Ever since the year 2000, only 13.5% of delegations displayed gender parity, with 69% (2887 out of 4186 delegations) still being composed of men majorities (2000–2021).
- ⇒ Despite global commitments to gender equality in leadership, women remain under-represented in global health governance.
- ⇒ Notably, not a single WHA in the past 74 years had more than 30% of the Chief Delegates as women (ranging from 0% to 30%).
- ⇒ Based on our estimated trends, some countries may take over 100 years to reach gender parity (45%–55% women) in their WHA delegations and it is estimated to take over 40 years to achieve gender parity in the role of Chief Delegate across all WHA delegations.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ An intersectional approach to representation in global health governance, which prioritises equity in participation beyond gender, can enable transformative policymaking that fosters transparent, accountable, functional and just health systems.
- ⇒ Urgent action is required by the global health community, with particular attention to regions and countries where progress has been stagnant.

under-representation of half of the world's population in positions of leadership is still displayed in global decision-making bodies such as the World Health Assembly (WHA).⁴ The WHA is the central decision-making body of the WHO, the lead normative and technical actor within the global health sector, where priorities and agendas are set for the global community by delegations representing each Member State. In 2017 and 2018 WHA delegations reached a peak at 30% of Chief Delegates (head of delegation) being inferred as women. Yet in years to follow, progress has stalled, with merely 24% of delegations headed by a woman in 2019, 22% in 2020 and 24% in 2021 (*own analysis*).

Global health actors are increasingly aware of the unaddressed lack of gender diversity within global health governance. In 2020, the Gender Equal Health and Care Workforce Initiative was launched by WHO, the French government and Women in Global Health.^{5,6} As part of its commitments during the Generation Equality Forum in 2021, the WHO pledged to 'promote and encourage gender parity in WHA delegations, WHO panels and advisory groups'.⁵

While progress to increase women's representation in positions of leadership has been made across global health governance since the inception of the WHA in

1948, further action by Member States is likely needed to achieve gender equitable representation of WHA delegations. Here, we present a full analysis of gender representation of Member State, Associate Member and Observer (country/territory) WHA delegations over the past 74 years (1948–2021). This longitudinal, descriptive analysis serves to identify patterns of progress and/or stagnation across regions which can help orient priorities for action.

METHODS

Data source and extraction

The official lists of delegates and other participants were obtained from the WHO's Institutional Repository for Information Sharing (IRIS) (<https://apps.who.int/iris/>) for WHA1 (1948) through WHA74 (2021). In cases where multiple lists of delegates were available, the most recently dated list/document was used (the WHA resolutions and decisions document). A full list of the documentation used for each WHA can be found in online supplemental table 1.

For the purpose of this study, we primarily focused on delegations of Member States. We also included Associate Members, Observers for non-Member States (eg, Holy See, Order of Malta) and Observers with reference to specific resolutions (eg, Palestine (resolution WHA53.13), Chinese Taipei/Taiwan). While this predominantly included countries, it also included territories (eg, Tokelau, Puerto Rico), former political parties that acted as Observers in the earlier years of the WHA (eg, African National Congress, African Party for the Independence of Guinea and Cape Verde), representation of the Catholic Church (Holy See, Order of Malta) and de jure sovereign states (Palestine) that are under de facto control of another state. The scope of this research excluded other Observers such as representatives of international governmental organisations (IGOs) or non-governmental organisations (NGOs).

Country/territory, prefixes, (full) names, roles in the WHA (Chief Delegate, Deputy Chief Delegate, Delegate, Alternate, Adviser and other (eg, Secretary)), and occupational functions or affiliations (eg, Minister of Health, Secretary of State) were manually extracted and collected by 14 authors. Names were typically only provided with first initials rather than full names (eg, T. A. Ghebreyesus instead of Tedros Adhanom Ghebreyesus). A second member of the team double-checked all extracted data.

Data on whether the Head of State (HoS), Head of Government (HoG) and Minister of Health (MoH) of current Member States (2022) were inferred women in the past 5 years (2017–2022) were collected by five authors based on official governmental documentation/websites.⁷ This was double-checked by a second member of the team.

Inferring likely gender

Likely gender was inferred based on gendered prefixes (eg, Ms., Mrs., Miss, Mr.) provided in the obtained

lists of delegates (see online supplemental table 2). In case a gendered prefix was not available (eg, Dr, Prof.), gendered pronouns (eg, she/he/they) or other gendered language (eg, 'husband') used in WHO documentation or publicly available online documentation (eg, government websites, online biographies) was used to infer likely gender (eg, woman, man, non-binary) by 14 authors. If the full name was available or found through online searches, but no gendered prefixes, pronouns or other gendered language could be retrieved, a gender-to-name algorithm (<https://genderize.io/>) was used based on historical databases combining first name and country (n=3274, 4.6% of the inferred genders of delegation members). This tool has been applied and checked for robustness in multiple previous studies.^{8–10} The algorithm's inferred gender was only accepted when the probabilistic certainty score was ≥ 0.50 . If a likely gender could not be inferred after this approach, it was classified as 'unknown' (n=4383, 5.8% of total delegation members). Due to the inability of gender-to-name algorithms to identify people outside the gender binary and their reduced quality for inferring gender for non-Western names, this option functioned as a last resort. Gender was not inferred based on gender expression/presentation (phenotype) in images/photos from delegation members, due to the subjectivity of this method. As few people were inferred to be non-binary (n=2, 0.003% of delegation members), they were included as a gender minority in the categorisation of 'women' for the purpose of this analysis.

Data cleaning and coding

We assigned current Member States to their corresponding WHO region group (2022) (Africa, Americas, Eastern Mediterranean, Europe, South-East Asia, Western Pacific),¹¹ United Nations (UN) region group (2022) (Africa, Asia and Pacific, Eastern Europe, Latin America and Caribbean, Western Europe and Others),¹² World Bank (WB) region group (2022) (East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, North America, South Asia, sub-Saharan Africa),¹³ WB income group (2022) (high-income, upper-middle-income, lower-middle-income, low-income)¹³ and 2019 Gender Inequality Index (GII) (see online supplemental table 14).¹⁴ Of the three different geographical regions (WHO, UN and WB), we focus on the WHO grouping in the main text—while results by UN and WB geographical groupings are provided in the supplement for additional context/information. The United Nations Development Programme GII measures gender inequalities in three aspects of human development: health, empowerment and economic status. GII ranges from 0 to 1, with higher GII values corresponding to increased disparities between women and men.¹⁴ Data from two of the Worldwide Governance Indicators (2019) were also obtained; the Voice and Accountability indicator (a reflection of the perceived extent to which a country's citizens are able

to participate in selecting their government, freedom of expression, freedom of association and free media^{15 16}) and Government Effectiveness indicator (a reflection of the perceived public services quality, civil service quality and degree of independence from political pressure, policy formulation and implementation quality, and the credibility of government's commitment to policies^{15 16}). Estimates of governance performance on these indicators ranges from 2.5 (strong) to -2.5 (weak).^{15 16}

Countries that changed their name (but not geographical boundaries) over the past 74 years have been re-coded to their current (2022) name (eg, Swaziland to Eswatini, Burma to Myanmar) to enable longitudinal analysis. Countries that have changed their geographical boundaries and/or geopolitical context have not been re-coded (eg, Yugoslavia, Ruanda-Urundi). Online supplemental table 3 displays the re-coded and not re-coded (former) countries, territories and political parties, including their relevant geopolitical contexts. To include these (former) countries, territories and political parties in regional longitudinal analyses, we grouped them under the geographical 'UN', 'WHO' and 'WB' regions that they would theoretically fall in based on their geographical location (eg, Yugoslavia was categorised as 'Europe', 'Eastern Europe' and 'Europe and Central Asia' for the 'WHO', 'UN' and 'WB' regions, respectively) as seen in online supplemental table 4. The WB income group and GII were not extended, as this would have required longitudinal data reflecting the countries change in income group and GII over 1948–2021.

Data analysis and visualisation

We present backward 5-year rolling averages for the percentage (%) of women across WHO, UN, WB region and income groups and across delegates' roles (eg, Chief Delegate) to generate time series over 1948–2021. Inferred gender composition of each delegation was further categorised into majority women (>55% women), gender parity (45%–55%) and majority men (>55% men)—this was presented as total number of delegations and percentage of delegations with majority women, gender parity and majority men over time (1948–2021).

Binomial 95% CIs were calculated for the proportions of interest (per cent of women). To estimate the per cent of change in women per year \pm SE, we first aggregated the data over intervals of 10 years (backwards), and calculated the overall per cent of women over these intervals. This was then used to fit a linear regression model and to estimate the number of years until gender parity with 2010–2019 as baseline. The (i) estimated proportion \pm 95% CI of inferred women delegation members at the WHA in 2019, (ii) estimated change (%) \pm SE of inferred women delegation members at the WHA per year and (iii) estimated years \pm SE until gender parity from 2010 to 2019—were presented by WHO region, income group, WHA function and country. The p values for trend (β) were adjusted using the false discovery rate. The former (i, ii and iii) were presented separately

for countries that were Member States in 2019 with an adjusted p value for trend <0.01 , $0.01 > p \text{ value} < 0.05$ and $p \text{ value} > 0.05$. This (i, ii and iii) was separately presented for the three Observers in 2019 (Order of Malta, Holy See and Palestine).

Selecting only the countries with an adjusted p value for trend (β) of <0.05 —i, ii and iii were plotted at a country level against the GII (2019), the Voice and Accountability Worldwide Governance Indicator (2019) and the Government Effectiveness Worldwide Governance Indicator (2019). Linear regression models were fitted and the Pearson's Correlation Coefficient was calculated. To assess whether there is a difference in the distribution of i, ii and iii between countries who have had a woman HoS, HoG or MoH in the past 5 years (2017–2022) and those who have not—the non-parametric Wilcoxon signed-rank test was used, and distributions were presented using boxplot violin plots.

Missing values were excluded from all analyses. All statistical analyses and data visualisations were conducted in Stata V.16 and R V.4.0.5 (R Foundation, Vienna, Austria, www.r-project.org). For data visualisation, the tidyverse, dplyr, pals, and ggplot packages were used.

Ethical considerations

All data used for this study were not restricted nor sensitive, nor did they require permission to access or collate. Data were publicly available and accessible, eliminating the need for additional ethical approval.

Research team

The research team was composed of an internationally diverse group of researchers from a wide variety of socio-cultural backgrounds and languages (Arabic, Bengali, Chinese (Mandarin), Dutch, English, Farsi, French,

German, Hausa, Kazakh, Nepali, Polish, Russian, Spanish, Swahili, Urdu, Yoruba) which allowed the team to include non-English/non-Western sources and perspectives.

RESULTS

A total of 75 815 delegates, representing 10 944 delegations of 228 unique (including former) countries, territories and political parties of Member States, Associate Members and Observers were included over 1948–2021. Online supplemental table 6 exhibits summary characteristics of all collected data.

Overall, upward trends could be observed in the percentage of inferred women delegates over 1948–2021 across different WHO regions and income groups (figure 1). The Americas and Europe have seen gender parity achieved in their delegations within the last decade. Simultaneously, the Eastern Mediterranean Region, despite significant progress over time, has women representing just 25% of the WHA delegations—while the African region has had stagnant representation of women of around 25%–30% over the last 20 years (figure 1A). Similar trends can be observed when using different regional groupings, such as the UN and WB regional groupings (online supplemental figure 1). Based on current trends in the per cent increase of women's representation per year, some WHO regions will take at least several decades before reaching gender parity of WHA delegation members across their region (figure 2, top). When assessing women's representation across WB income groups, a widening gap of women's representation between high-income and low-income countries in recent decades can be observed. Representation of women in low-income country delegations has been stagnant around 20%–25% since the 1990s, whereas women's

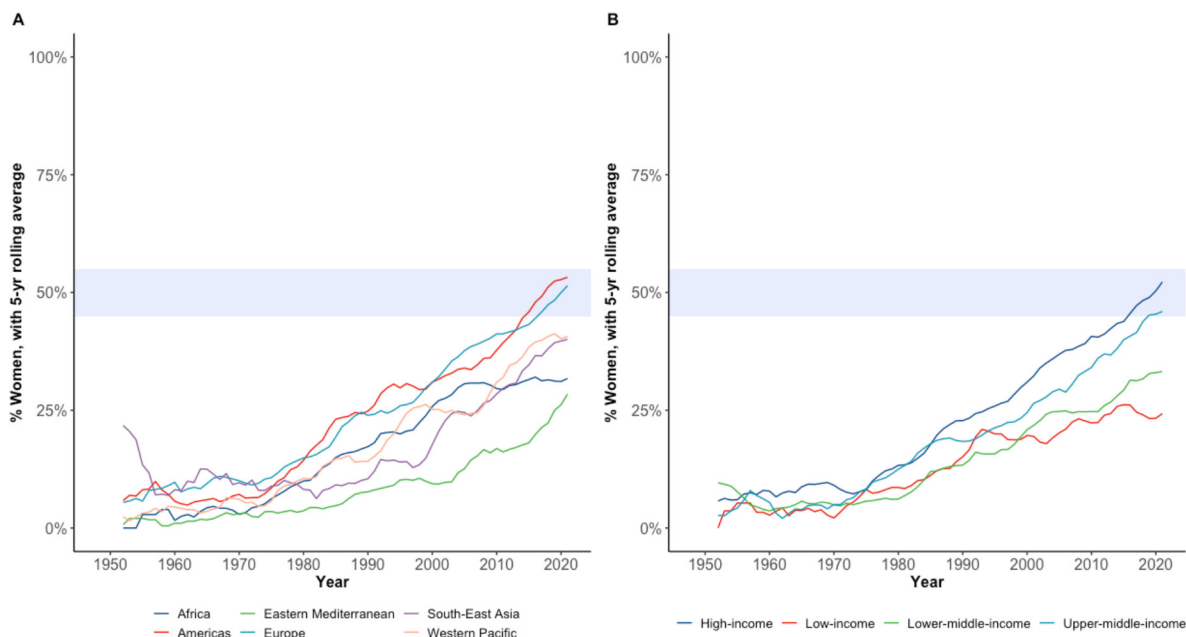


Figure 1 Proportion (%) of inferred women delegation members at the World Health Assembly over the years (1948–2021) by (A) WHO region, and (B) country income group (World Bank).

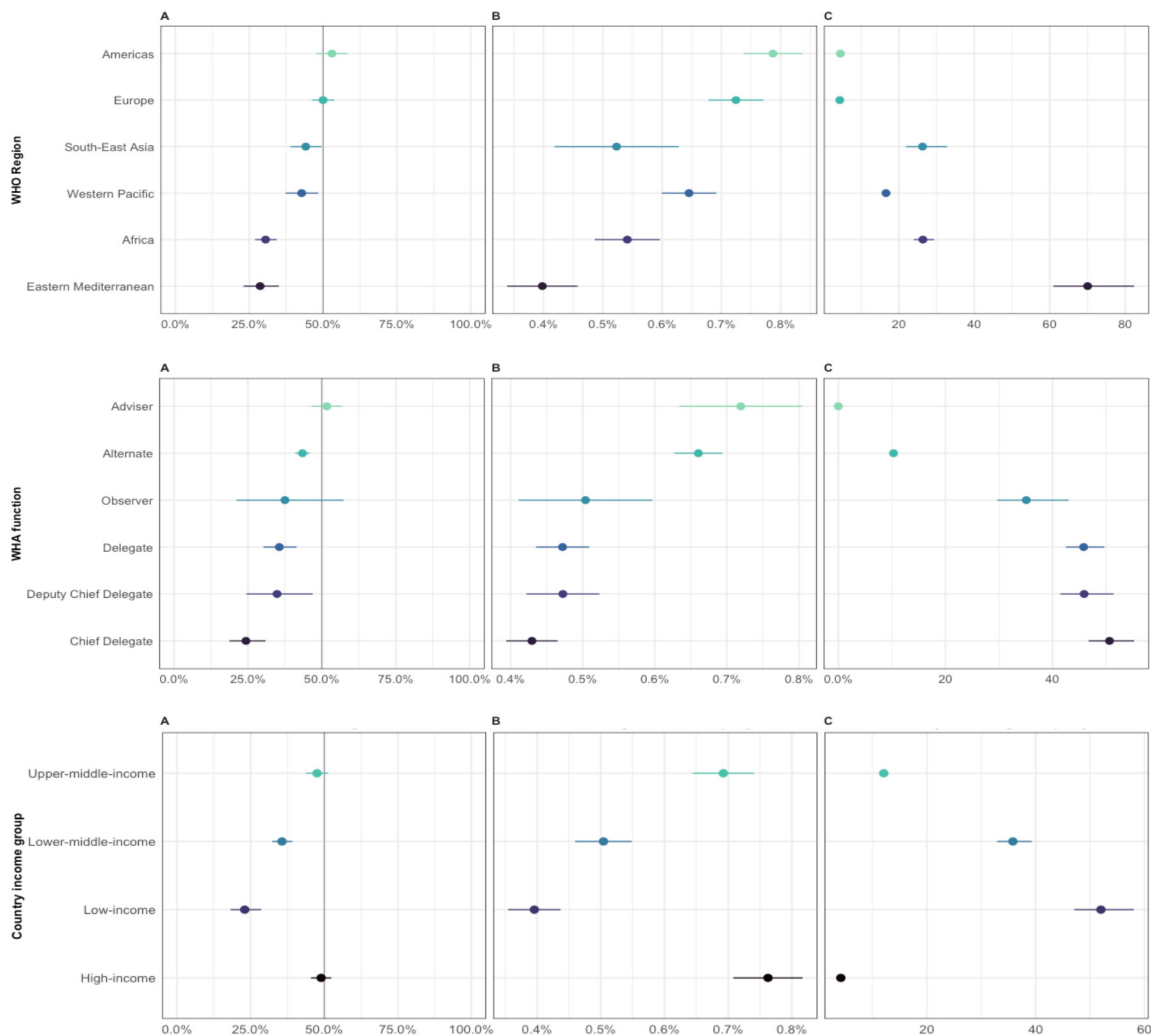


Figure 2 Women’s representation at the World Health Assembly (WHA) by WHO region (top), WHA function (middle) and country income group (bottom). (A) Proportion (%)±95% CI of inferred women delegation members at the WHA in 2019. (B) Estimated change (%)±SE of inferred women delegation members at the WHA per year. (C) Estimated years±SE until gender parity (45%–55% inferred women) from 2010 to 2019.

participation in overall high-income country delegations has doubled in that time, reaching gender parity in that income group (figure 1B). Based on current trends, it is estimated that the overall low-income country group will take around 50 years to achieve gender parity (figure 2, bottom).

Across the entire time period of 1948–2021, 82.9% of delegations (n=9068 of 10 944 delegations) had a majority of men representing their delegation, 8.9% a majority of women (n=972) and 8.3% demonstrated gender parity (n=904). General trends in the composition of delegations can be observed over 1948–2021 with a decreasing number of majority men delegations and increasing number of delegations with gender parity or majority women (figure 3). Yet, even after 2000, only 13.5% of all WHA delegations displayed gender parity, with 69% (2887 out of 4186 delegations) still being composed of majority men (2000–2021). In 2021 (WHA74), it was estimated that 54.9% of delegations (106 out of 192) were majority men, 22.1% majority women and 23% displayed

gender parity. While the COVID-19 pandemic impacted the total number of WHA delegates in 2020, 1655 delegates in 2020 versus 2583 delegates in 2019 (online supplemental figure 2), the percentage of total inferred women was 42% in both 2019 and 2020. In 2021, delegation size and percentage of women delegates rose to 46% inferred women of 2274 total delegates.

Women have been less represented in higher-powered delegation roles (here considered to be Chief Delegate and Deputy Chief Delegate) in all WHO regions over 1948–2021. Less than 30% of Chief Delegates and Deputy Chief Delegates were inferred to be women in 2021, ranging from 0% to 30% (see online supplemental figure 3). At the current rate of change, it is estimated to take over 40 years to achieve gender parity in the role of Chief Delegate across all WHA delegations (figure 2, middle). In contrast, women’s participation in WHA delegations is higher in the roles of an Adviser or Alternate, with over 55% of delegation advisers being women in 2021 (online supplemental figure 3A).

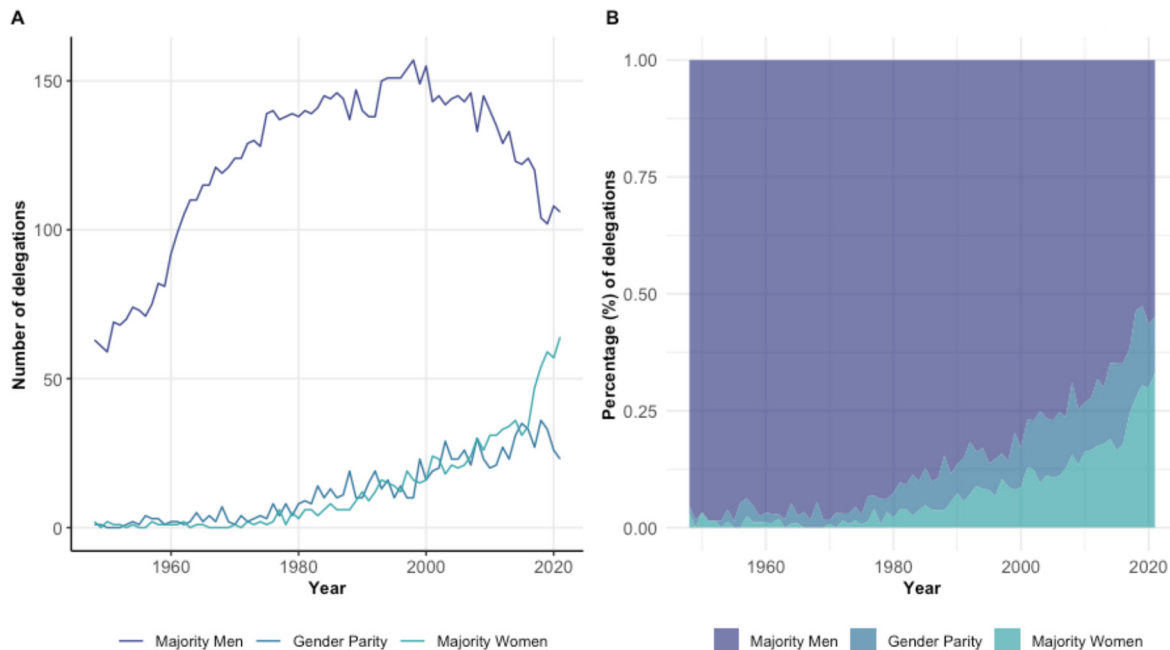


Figure 3 Inferred delegation composition at the WHA over the years (1948–2021). Majority men (>55% inferred men), gender parity (45%–55% inferred women) and majority women (>55% inferred women). (A) Number of delegations with majority men, gender parity or majority women. (B) Proportion of delegations with majority men, gender parity or majority women.

Women’s representation in 2019 (i), per cent change in women’s representation by year (trend) (ii) and years until gender parity (iii) varies widely across Member States (figures 4 and 5 and online supplemental figure 4), and Observers (online supplemental figure 5). When comparing countries with adjusted p values <0.01 for trend (figure 4), only Bangladesh is estimated to take over 100 years to reach gender parity in their overall WHA delegation members from the 2010–2019 baseline—while others are expected to take several years (eg, Mexico, Greece, Uganda), or have already reached gender parity (eg, Finland, Argentina). More variation can be observed when comparing the countries with adjusted p values for trend of >0.01 and <0.05 (figure 5)—with several countries estimated to take at least several decades before reaching gender parity in their WHA delegations. While, i, ii and iii are also presented in online supplemental figure 4 for Member States with adjusted trend p values >0.05, interpretation of ii and iii should be done with caution.

When plotting i, ii and iii against the GII at a country level, statistically significant negative trends with the per cent of women delegates in 2019 (figure 6A) and the per cent change in women delegates per year can be observed (figure 6B); statistically significant positive trends are observed with the number of years until parity and GII (figure 6C). In other words, a higher GII seems to be correlated to lower women’s representation in WHA delegations (figure 6). Similarly, when plotting i, ii and iii against the *Voice & Accountability* and *Government Effectiveness* Worldwide Governance indicators, statistically significant positive trends can be observed with the per cent of women delegates in 2019 (online supplemental figure 6A, 7A) and per cent change in women delegates per year

(online supplemental figure 6B, 7B), while significantly negative trends can be observed with years until parity (online supplemental figure 6C, 7C). This may suggest correlations between women’s representation and governance performance on these indicators.

Lastly, when comparing the distribution of i, ii and iii, no significant differences in the distributions were observed between countries with a woman HoS or HoG and countries without a woman HoS or HoG in the past 5 years (2017–2022). However, statistically significant differences could be observed for the distributions of i, ii and iii between countries that had a woman MoH in the past 5 years—with a higher per cent of women being part of 2019 delegations in countries who had a woman MoH (p value=0.004), a higher per cent change in women delegation members per year (p value=0.003) and a lower number of years until parity (p value=0.009) compared with countries who did not have a woman MoH.

DISCUSSION

While highlighting the progress of women’s representation in WHA delegations over time, this study presents a timely expose on the prevailing levels of gender inequality and exclusion of gender-diverse voices in global health leadership and decision-making bodies. Our quantitative data from 10994 delegations and 75 815 delegation members spanning 74 years (1948–2021), illustrates that men remain over-represented in most WHA delegations of Member States, Associate Members and Observers to date. From 1948 to 2021, 82.9% of delegations were represented by a majority of men and no WHA had more than 30% of women Chief Delegates in

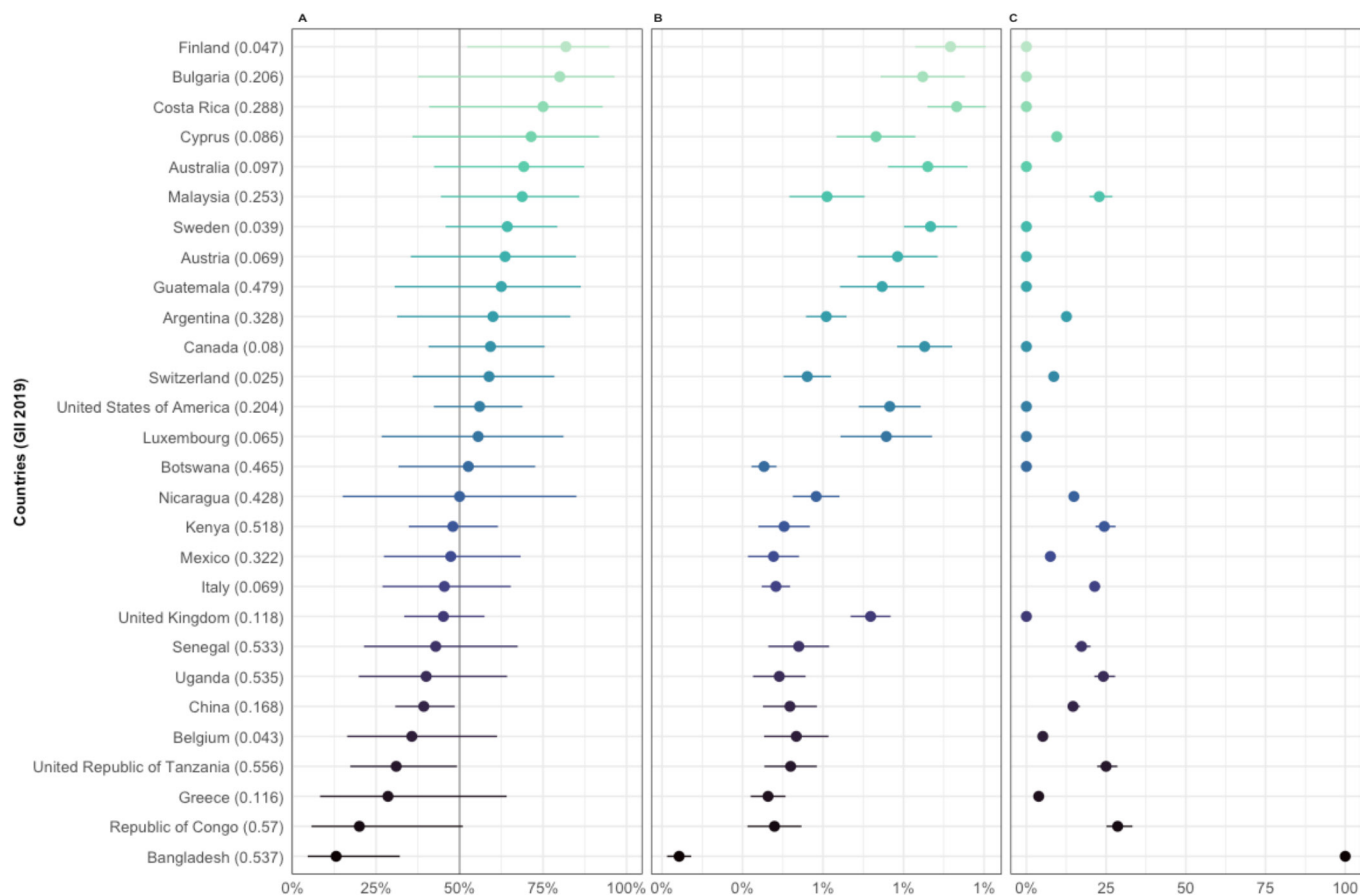


Figure 4 Women’s representation in countries with a trend in estimated change of percentage women delegation members per year adjusted p value<0.01. (A) Proportion (%)±95% CI of inferred women delegation members at the World Health Assembly in 2019. (B) Estimated change (%)±SE of inferred women delegation members at the World Health Assembly per year. (C) Estimated years±SE until gender parity (45%–55% inferred women) from 2010 to 2019. Note, only countries that were Member States in 2019 are included. GII, Gender Inequality Index.

the 74-year period. Wide variation in trends over time could be observed across different geographical regions, income groups and countries. This is likely the result of different prolonged and multifaceted context-specific social, cultural and institutional factors that inhibit meaningful equitable participation within different countries. Based on our estimated trends, some countries may take over 100 years to reach gender parity (45%–55% women) in their WHA delegations. The lack of representation at this lead global health governance platform is in stark contrast to the health workforce where women constitute over 70%. This unjust disparity in representation fuels real world inequities experienced by women globally.

Unsurprisingly, a higher GII, which indicated higher disparities between women and men in a country, seems to be correlated with a lower proportion of women delegation members in 2019, lower per cent change per year and more years until gender parity. Simultaneously, correlations with the aggregate WB’s *Voice & Accountability* and *Governance Effectiveness* indicators seem to have the opposite direction. Countries that are perceived to have a strong performance on the *Voice & Accountability* indicator (citizen’s participation in selecting their government, freedom of expression, association and free media)

as well as countries that have a perceived strong performance on the *Governance Effectiveness* indicator (quality of public and civil services, quality of policy formulation and implementation and credibility of government’s commitments to such policies) are estimated to have a higher proportion of women delegation members, higher per cent change per year and fewer years until gender parity. These indicators may serve as a proxy for other factors related to the political and socioeconomic context, history and culture of a country that influence its societal norms and structures which may enable higher gender equality and/or participatory governance.¹⁷ Importantly, while useful for broad cross-country comparisons and trends over time, these broad composite represent complex phenomena which cannot be used to elucidate direct or clear associations and therefore to inform specific action for governance reforms.¹⁵ Hence interpretation of these correlations should be approached with caution.

The progress seen today may partially be attributed to a culmination of decades of advocacy, focused on gender equality in international governance. Established in 1946, UN Commission on the Status of Women was the first global intergovernmental body within the UN entirely dedicated for advocating gender equality and

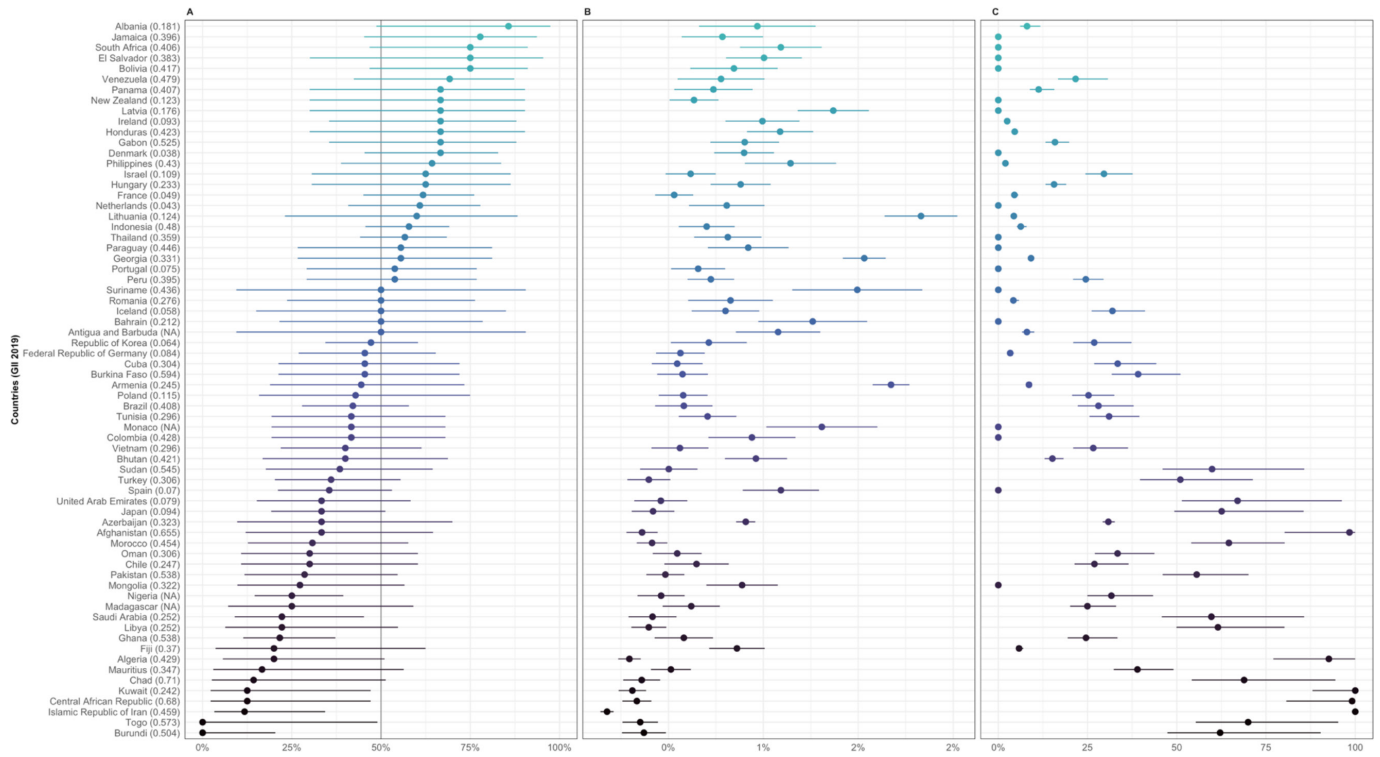


Figure 5 Women's representation in countries with a trend in estimated change of percentage women delegation members per year adjusted p value<0.05 but>0.01. (A) Proportion (%)±95% CI of inferred women delegation members at the World Health Assembly in 2019. (B) Estimated change (%)±SE of inferred women delegation members at the World Health Assembly per year. (C) Estimated years±SE until gender parity (45%–55% inferred women) from 2010 to 2019. Note, only countries that were Member States in 2019 are included. GII, Gender Inequality Index.

the empowerment of women.¹⁸ Nearly 50 years later, the 1995 Beijing Platform for Action was adopted at the World Conference on Women in Beijing, highlighting ‘Women in power and decision-making,’ as one of the 12 critical areas where urgent action was demanded to ensure greater equality for women and girls.¹⁹ In the Beijing Platform for Action, 189 country governments

committed to having women in 30% of their decision-making roles and the proportion of women in countries’ governing bodies nearly doubled since.²⁰ Subsequent years continued to witness a growth of women in leadership roles across global health governance, including Dr Gro Harlem Brundtland, who served as the first woman in the role of WHO Director-General in 1998.²¹ These

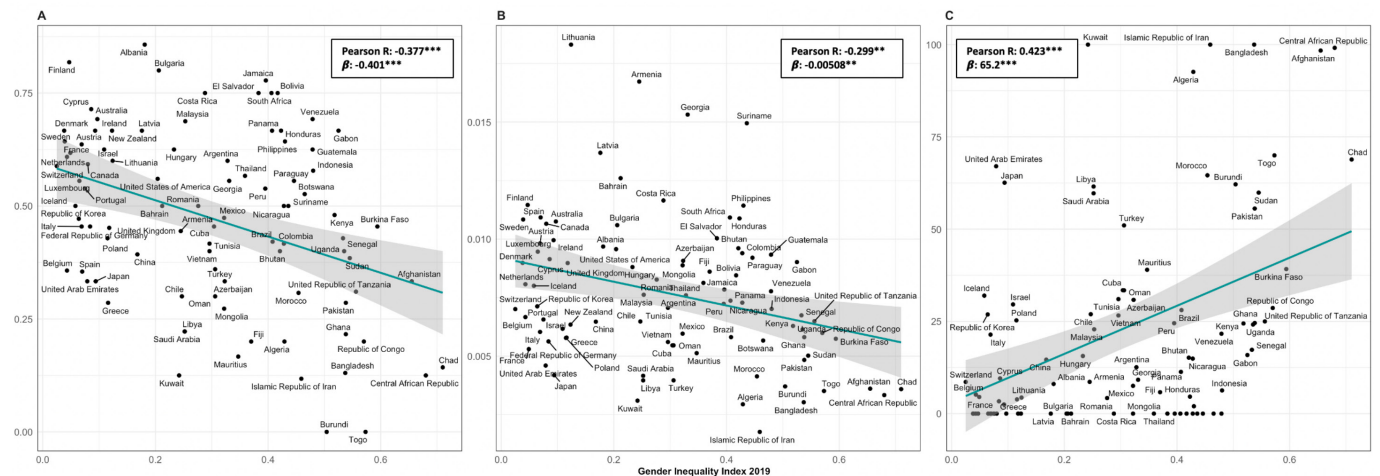


Figure 6 Women’s representations by Member State’s Gender Inequality Index (GII) 2019. (A) Proportion (%)±95% CI of inferred women delegation members at the World Health Assembly in 2019 by GII 2019. (B) Estimated change (%)±SE of inferred women delegation members at the World Health Assembly per year by GII 2019. (C) Estimated years±SE until gender parity (45%–55% inferred women) from 2010 to 2019 by GII 2019. Note, only countries with a trend in estimated change of percentage women delegation members per year adjusted p value<0.05 were included.

changes emerging from global governance platforms and international declarations/commitments, are accompanied by overall societal shifts surrounding gender equity such as changing perspectives around gender roles, identities and expectations—enabling improvements in women's participation in governance and leadership across the world.²²

Policy implications: responsibilities of the WHO

Through its leadership and normative authority, the WHO holds a central role in promoting gender equity in global health leadership. Global health governance benefits from the inclusion of a variety of perspectives in order to inform more comprehensive and transformative health systems programmes and policies.^{2 23 24} Diverse teams (gender, ethnicity, etc) tend to be higher performing, are more innovative and can contribute to inclusion and equality in wider communities.²⁵ Role-modelling diversity in WHO staff (not only in gender, but also across other socio-demographic factors through an intersectional lens) encourages other global health organisations and governments to follow suit, and use the rich dividends of diverse expertise, experiences and perspectives in global health.

WHO has signalled its commitment to promoting gender equity in WHA delegations,⁵ and could consider more active strategies to ensure this is achieved. This may include supporting Member States to develop leadership programmes or the implementation of gender diversity quotas within delegations. However, it is important to recognise that while gender quotas can be an important method to establish standards for representation, they do not directly correlate to an influence in decision-making. Furthermore, an increased number of women at the table does always or necessarily equate to more gender-diverse, inclusive and improved decision-making. For example, women may still not have as many opportunities to speak, access to power and quotas do not take into consideration the formal and informal mechanisms through which gender inequity in leadership occurs.²⁶ Policies on inclusive leadership should consider more than representation in numbers, but consider the entire enabling environment for the inclusion of diverse voices and perspectives using an intersectional approach to global health decision-making and policy.

The WHO could further commit to monitoring progress on delegation representation over time through the collection of data that is disaggregated by gender and other social identities that may affect the participation of under-represented people, perspectives and expertise in global health leadership.²⁷ Tracking this information is an important factor for accountability—while presenting this information to Member States may also serve as powerful impetus for meaningful change. When collecting data on WHA participants, WHO should acknowledge that gender is not binary and provide appropriate options during registration, including the ability to self-identify as gender non-binary or -conforming.

Policy implications: responsibilities of Member States

The responsibility for elevating this continuing imbalance in gender participation in WHA delegations lies with each individual Member State and should be supported by the WHO and the international community. While it is imperative to increase women's participation in country delegations, women and gender minorities of diverse backgrounds and origin, should also be meaningfully included in leadership positions within government and international organisations. This would reflect their existing roles, work, expertise and contributions to the global health field, and will further inclusive engagement in conversations related to their own health and well-being. Advocates and academics alike have suggested a spectrum of interventions relating to environmental, institutional and individual factors to encourage and empower women's continued involvement and leadership in global health roles.²⁸ These structural and systematic interventions such as leadership grants, formal policies to safeguard women in the workplace and peer-training and mentorship opportunities could facilitate the meaningful participation in decision-making and leadership roles.^{28 29}

Individual Member States play an important role in ensuring fair and equitable representation in global health governance, including in their WHA delegations. Member States with a current commitment to gender equity should remain dedicated to their individual country targets, as outlined by their recent and relevant commitments.^{30 31} Member States without a current commitment to gender equity in governance, could make explicit public commitments and adopt strategies, policies and practices to enable equitable participation in global health governance. As factors influencing equitable participation in global health governance will differ across settings, this will require active commitments to identify, assess and respond to the prolonged and multifaceted social, cultural and institutional factors that inhibit meaningful equitable participation in global health governance across different country contexts. A recent systematic review on leadership in health identified that cultural change and leadership commitment across five emergent categories were of particular importance to facilitate meaningful equitable participation in leadership: organisational processes, training and development, awareness and engagement, mentoring and networking, and organisational support tools.³²

However, it is important to note that, the inclusion of more women does not explicitly assure the full spectrum of gender transformative policies nor can it be assumed that women are always gender-inclusive advocates.^{26 33} Beyond gender parity in representation, it is imperative to recognise that women are not a homogenous group and differences in class, income, race, religion, ability and nationality must also be considered in the development and implementation of global health policies.^{26 27} Tacking such an intersectional approach to global health can be used to address not only representation in global

health multilateral systems, but the systemic inequalities and power hierarchies that influence power in global health decision-making.^{2 24 26 27 34}

Strengths and limitations

Our study has several strengths. The scope of this analysis provides the first comprehensive large-scale longitudinal quantitative assessment of delegation's gender representation since the WHO's inception in 1948. The data disaggregation enabled further descriptive evaluation of trends between countries, regions, income groups and delegate roles. Furthermore, the data generated provides a strong foundation for further gender equitable data collection and in-depth analysis the authors and/or WHO may want to commit to monitor progress in WHA participation over time.

However, our study also has several limitations. First, while our analysis enables the assessment of gender representation over time, it does not allow us to assess the influence delegates have on WHA decision-making processes—nor allow us to directly assess whether increasing gender diversity in WHA delegations may produce more equitable gender-transformative global health policies and agreements at the WHA. Arguably, many decisions on behalf of nations may have already been agreed on before the WHA actually convenes, limiting the influence of representative delegation members on formal decision-making processes.

Second, inferring likely gender was largely limited to binary definitions of gender, as authors were dependent on the prefixes and other gendered language used in WHO/online documentation and a binary gender-to-name algorithm, instead of delegates self-identification. As a result, some inferred genders may have misrepresented the gender identity of delegates. These limitations further point to the need for better data collection around gender and sex in order to promote transparency and accountability in gender-inclusive governance (eg, options for delegates to self-identify their gender in the WHA registration process).

CONCLUSION

Despite some progress in recent decades, women continue to be under-represented in global health leadership and decision-making at the highest level. The ongoing under-representation of women has implications for not only gender equality but also for global health systems worldwide, from the global to local level. Prioritising equitable intersectional approaches, which prioritise equity of various forms beyond gender, and inclusive representation in decision-making enables transformative policy-making that fosters transparent, accountable, functional and just health systems. Urgent action is required by the global health community, with particular attention to regions and Member States (countries) where progress has been stagnant in the past 74 years.

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Patient consent for publication Not applicable.

Ethics approval Not applicable.

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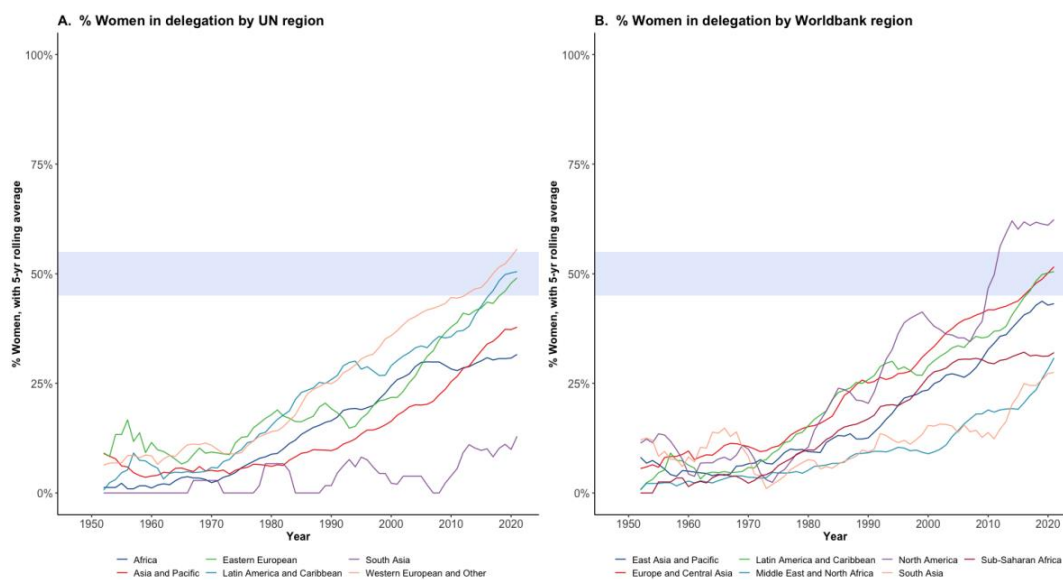
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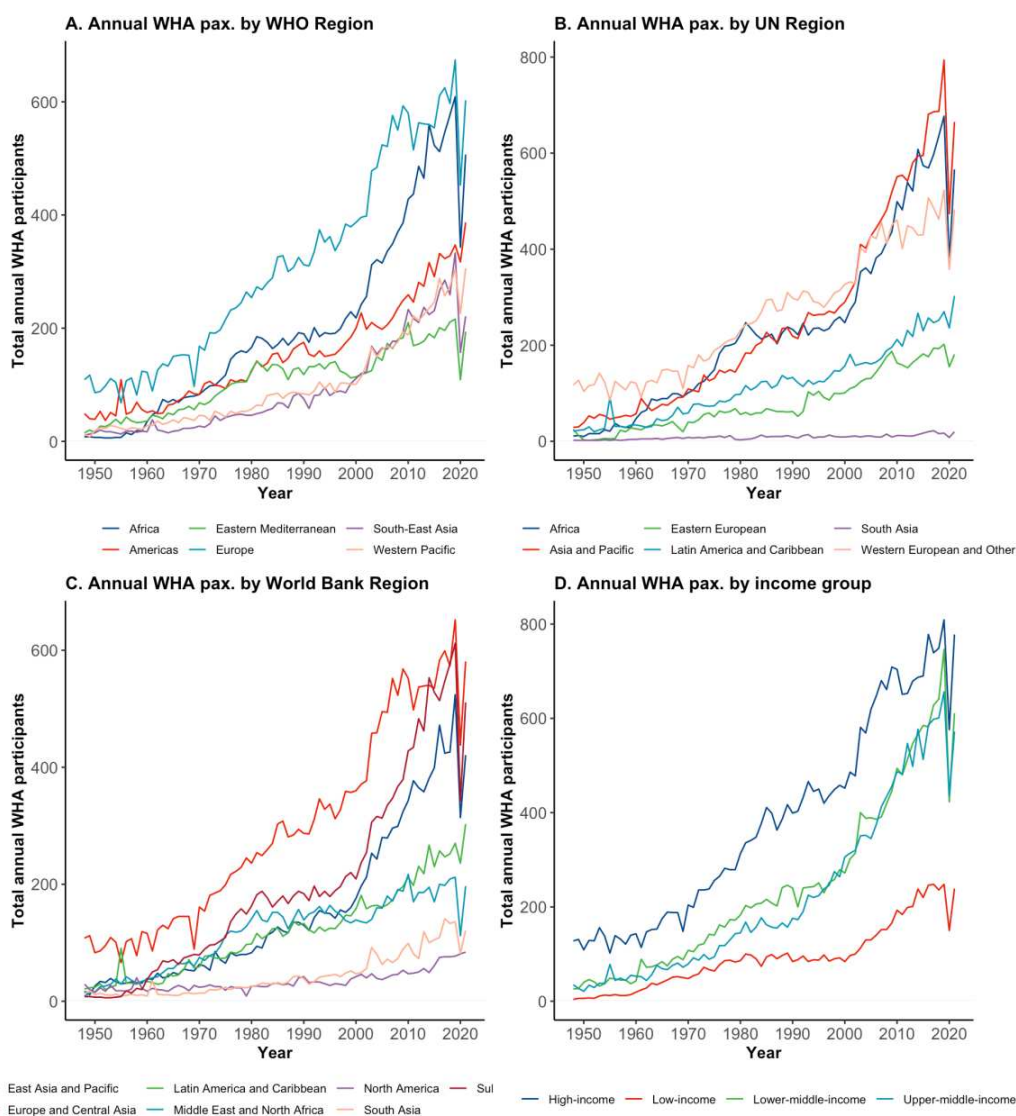
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Does Global Health Governance Walk the Talk? Gender representation in World Health Assemblies over 1948-2021

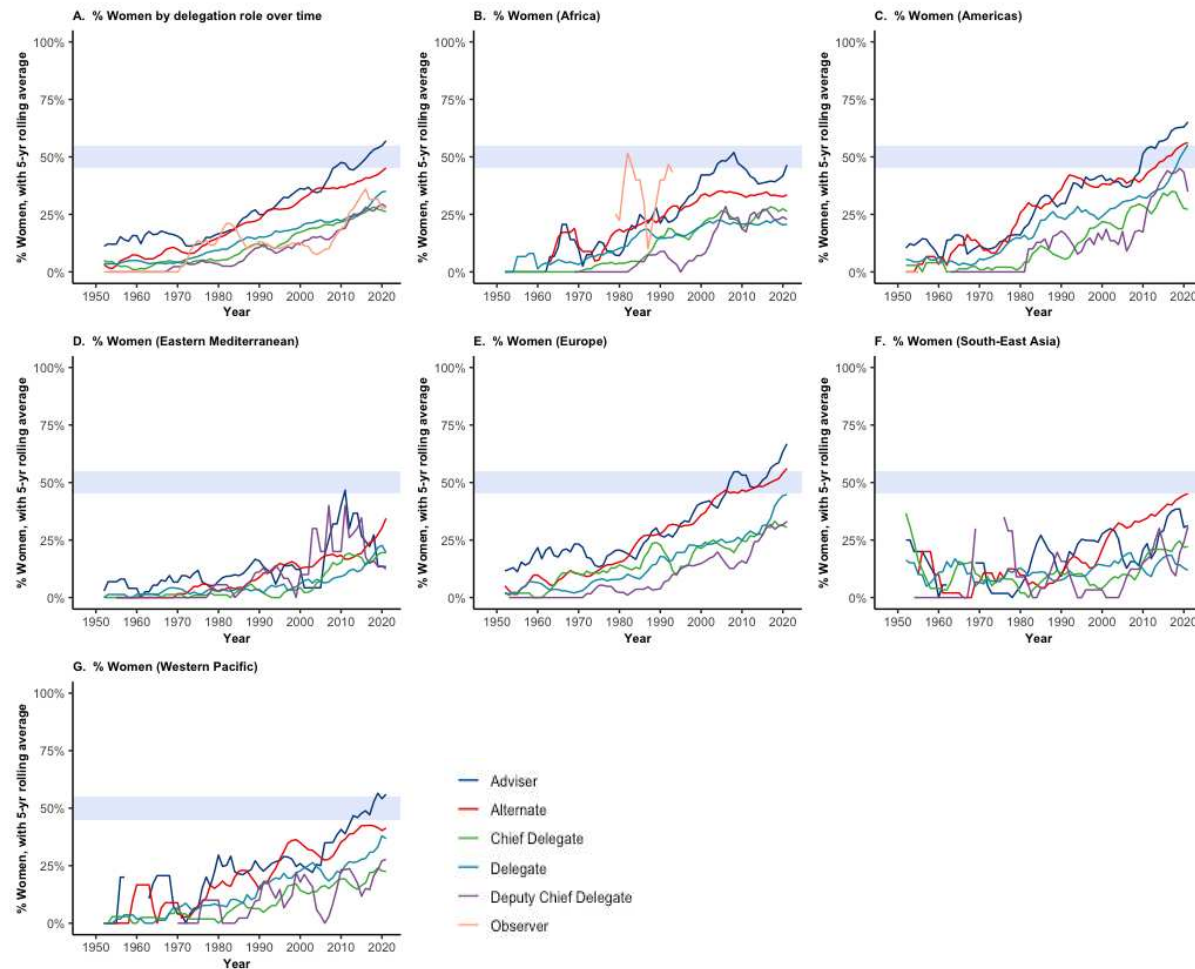
Supplement Materials



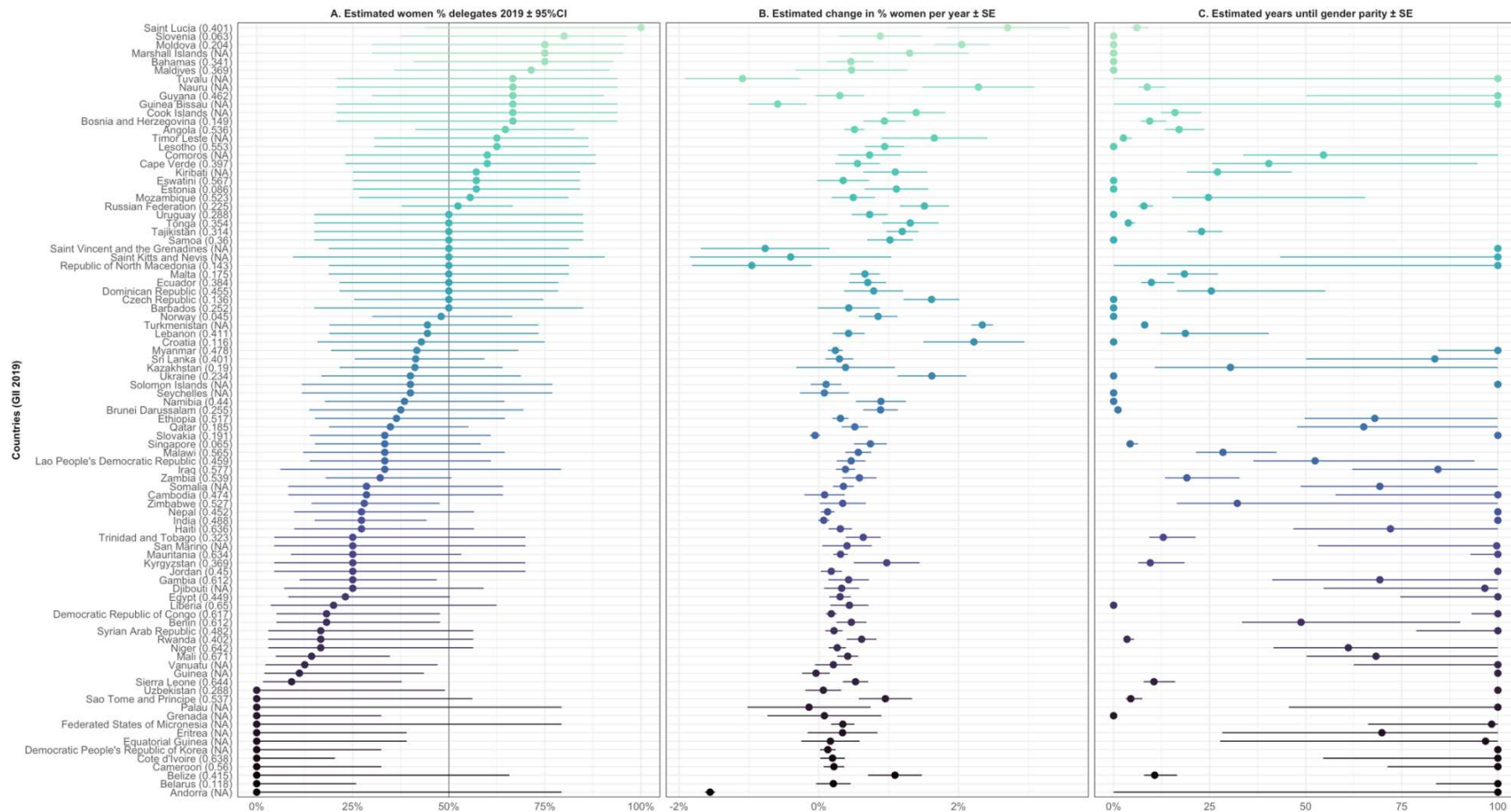
Supplement Figure 1. Proportion (%) of inferred women delegation members at the World Health Assembly over the years (1948-2021) by (a) UN region¹, and (b) World Bank region².



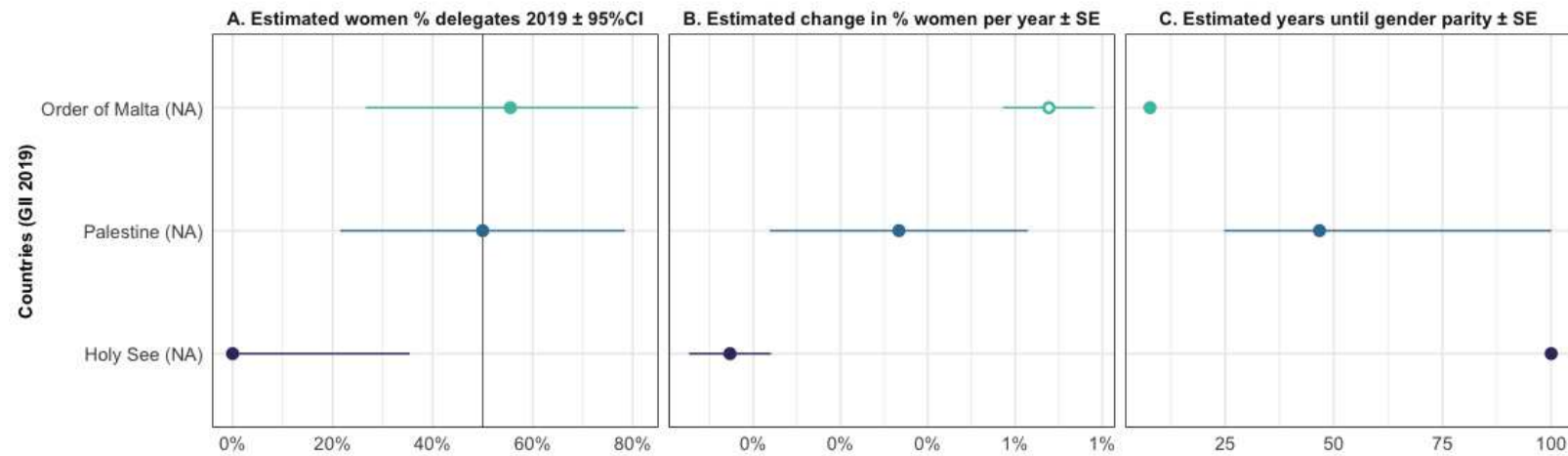
Supplement Figure 2. Total number of delegation members (pax.) at each World Health Assembly over the years (1948-2021). Member states, associate members and (permanent) observers are included. Groupings provided by (a) WHO region³, (b) UN region¹, and (c) World Bank region² and (d) income group (World Bank)².



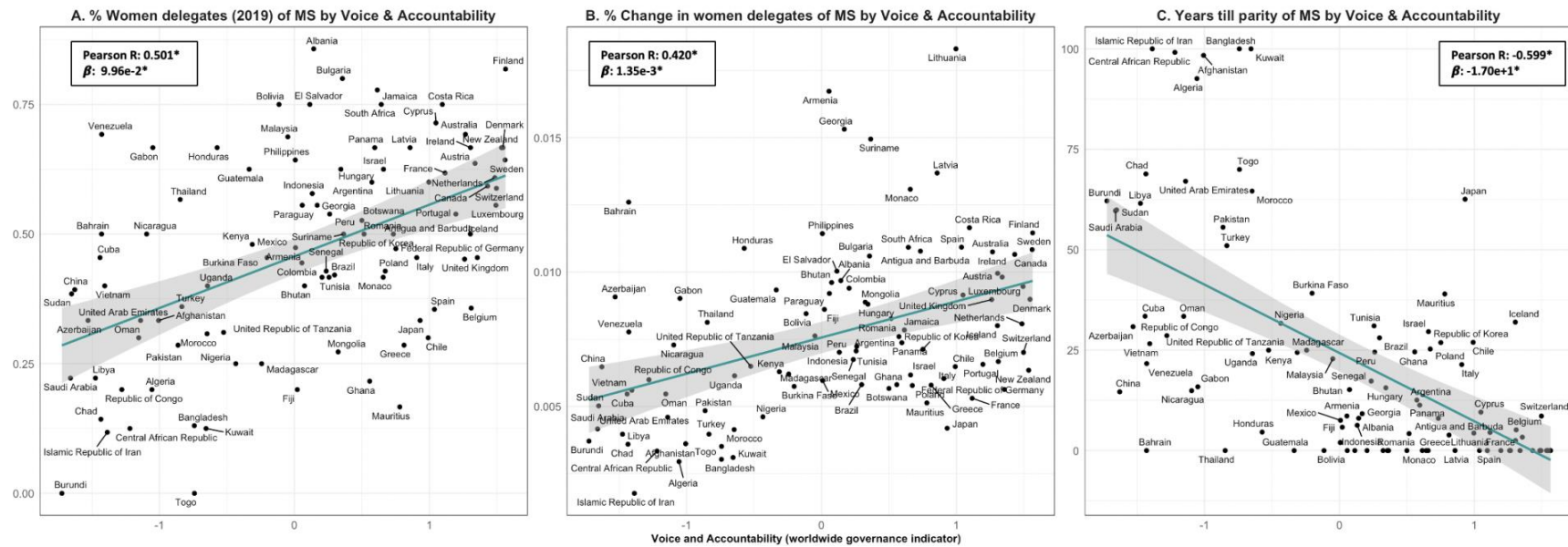
Supplement Figure 3. % Inferred women by delegation role over time (1948-2021) including (a) all delegates, and by WHO Region³; (b) Africa, (c) Americas, (d) Eastern Mediterranean, (e) Europe, (f) South-East Asia, (g) Western Pacific.



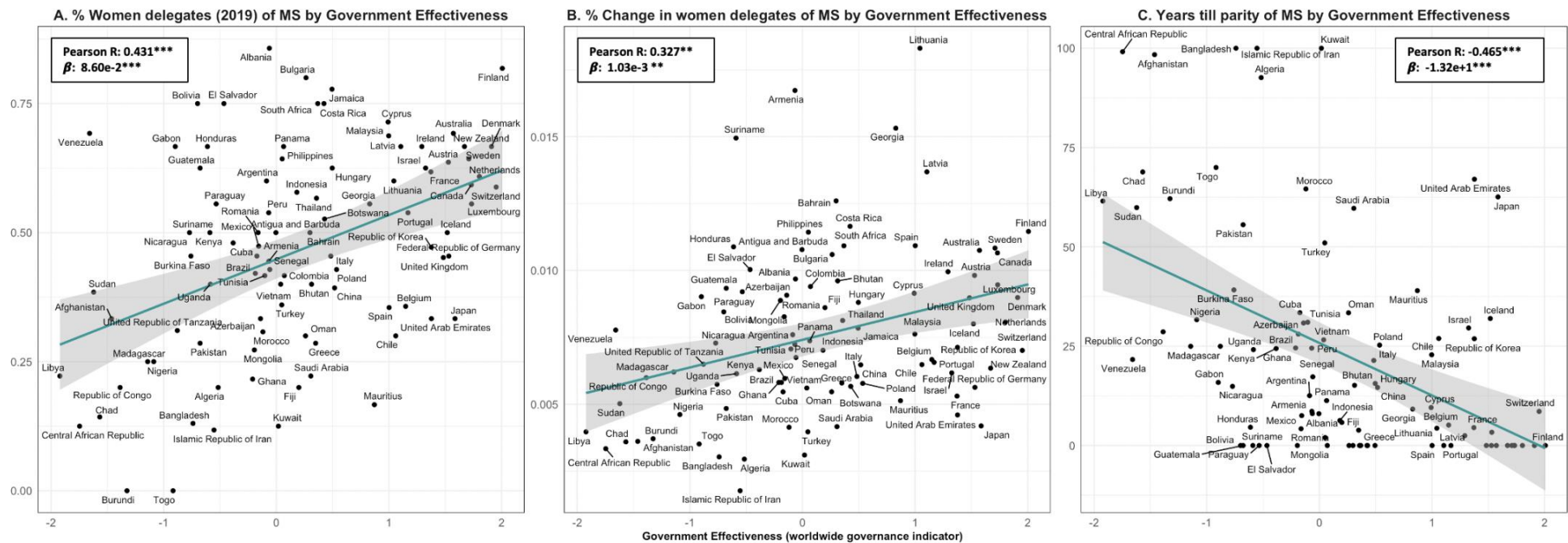
Supplement Figure 4. Women's representation in countries with trend in estimated change of % women delegation members per year adjusted P -value >0.05 . (a) Proportion (%) \pm 95% Confidence Interval (CI) of inferred women delegation members at the World Health Assembly in 2019. (b) Estimated change (%) \pm standard error (SE) of inferred women delegation members at the World Health Assembly per year. (c) Estimated years \pm standard error (SE) until gender parity (45%-55% inferred women) from 2010-2019. *Note, only countries that were Member States in 2019 are included.*



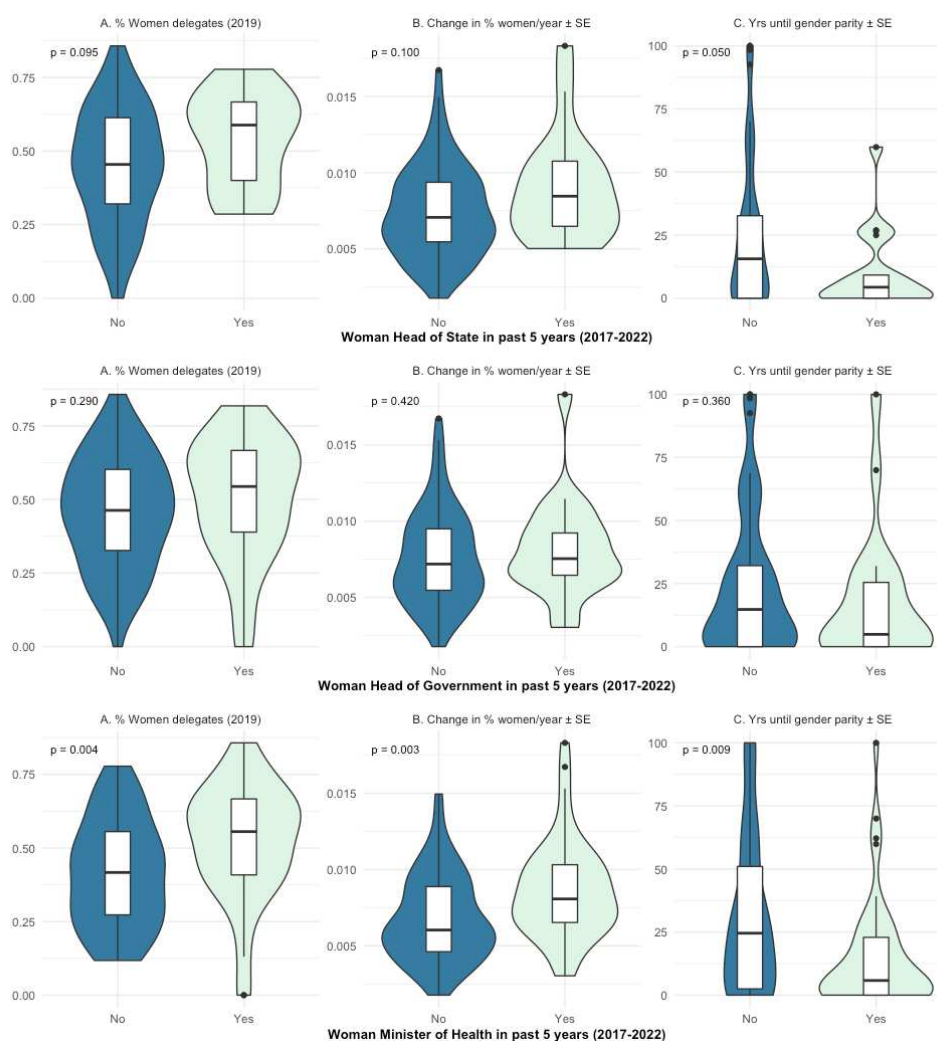
Supplement Figure 5. Women's representation in Observers of the 2019 World Health Assembly. White filled point: adjusted P -value for trend is <0.05 . (a) Proportion (%) \pm 95% Confidence Interval (CI) of inferred women delegation members at the World Health Assembly in 2019. (b) Estimated change (%) \pm standard error (SE) of inferred women delegation members at the World Health Assembly per year. (c) Estimated years \pm standard error (SE) until gender parity (45%-55% inferred women) from 2019.



Supplement Figure 6. Women's representations by Member State's Voice & Accountability Worldwide Governance Indicator (2019). (a) Proportion (%) \pm 95% Confidence Interval (CI) of inferred women delegation members at the World Health Assembly in 2019 by Voice & Accountability indicator 2019. (b) Estimated change (%) \pm standard error (SE) of inferred women delegation members at the World Health Assembly per year by Voice & Accountability indicator 2019. (c) Estimated years \pm standard error (SE) until gender parity (45%-55% inferred women) from 2010-2019 by Voice & Accountability indicator 2019. *Note, only countries with trend in estimated change of % women delegation members per year adjusted P-value <0.05 were included.* The Voice and Accountability Worldwide governance indicator is a reflection of the perceived extent to which a country's citizens are able to participate in selecting their government, freedom of expression, freedom of association and free media. Estimates of governance performance on these indicators ranges from 2.5 (strong) to -2.5 (weak).^{4,5}



Supplement Figure 7. Women’s representations by Member State’s Government Effectiveness Worldwide Governance Indicator (2019). (a) Proportion (%) \pm 95% Confidence Interval (CI) of inferred women delegation members at the World Health Assembly in 2019 by Government Effectiveness indicator 2019. (b) Estimated change (%) \pm standard error (SE) of inferred women delegation members at the World Health Assembly per year by Government Effectiveness indicator 2019. (c) Estimated years \pm standard error (SE) until gender parity (45%-55% inferred women) from 2010-2019 by Government Effectiveness indicator 2019. *Note, only countries with trend in estimated change of % women delegation members per year adjusted P-value <0.05 were included.* The Government Effectiveness Worldwide governance indicator is a reflection of the perceived public services quality, civil service quality and degree of independence from political pressure, policy formulation and implementation quality, and the credibility of government’s commitment to policies. Estimates of governance performance on these indicators ranges from 2.5 (strong) to -2.5 (weak).^{4,5}



Supplement Figure 8. Distribution of gender representation in WHA delegations in countries with a woman HoS, HoG or MoH in the past five years (2017-2022). (a) Proportion (%) \pm 95% Confidence Interval (CI) of inferred women delegation members at the World Health Assembly in 2019 by countries having a woman HoS, HoG or MoH in the past five years. (b) Estimated change (%) \pm standard error (SE) of inferred women delegation members at the World Health Assembly per year by countries having a woman HoS, HoG or MoH in the past five years. (c) Estimated years \pm standard error (SE) until gender parity (45%-55% inferred women) from 2010-2019 by countries having a woman HoS, HoG or MoH in the past five years. The non-parametric Wilcoxon signed-rank test was utilised to test for the difference in distributions – with a p-value <0.05 considered to be statistically significant.

Note, only countries with trend in estimated change of % women delegation members per year adjusted P-value <0.05 were included.

Supplement Table 1. Overview with documentation used to extract delegation members for each World Health Assembly (1-74).

#	Documentation reference
1	https://apps.who.int/iris/bitstream/handle/10665/85592/Official_record13_eng.pdf?sequence=1&isAllowed=y
2	https://apps.who.int/iris/handle/10665/85600?search-result=true&query=Second+world+health+assembly+verbatim+records&scope=&rpp=10&sort_by=score&order=desc
3	https://apps.who.int/iris/handle/10665/85607?search-result=true&query=Third+World+Health+Assembly+Verbatim+Records+Plenary&scope=&rpp=10&sort_by=score&order=desc
4	https://apps.who.int/iris/bitstream/handle/10665/85614/Official_record35_eng.pdf?sequence=1&isAllowed=y
5	https://apps.who.int/iris/bitstream/handle/10665/85641/Official_record42_eng.pdf?sequence=1&isAllowed=y
6	https://apps.who.int/iris/bitstream/handle/10665/85647/Official_record48_eng.pdf?sequence=1&isAllowed=y
7	https://apps.who.int/iris/handle/10665/85654?search-result=true&query=Seventh+World+Health+Assembly+verbatim+records&scope=%2F&filtertype_0=dateIssued&filter_relational_operator_0=equals&filter_0=%5B1920+TO+1959%5D&rpp=10&sort_by=score&order=desc
8	https://apps.who.int/iris/bitstream/handle/10665/85662/Official_record63_eng.pdf?sequence=1&isAllowed=y
9	https://apps.who.int/iris/handle/10665/85678?search-result=true&query=Second+World+Health+Assembly%2C+Geneva+24+June+to+24+July+1948%3A+plenary+meetings%3A+verbatim+records%3A+main+committees%3A+summary+of+resolutions+and+decisions&scope=%2F&rpp=10&sort_by=score&order=desc&page=1
10	https://apps.who.int/iris/handle/10665/85686?search-result=true&query=Second+World+Health+Assembly%2C+Geneva+24+June+to+24+July+1948%3A+plenary+meetings%3A+verbatim+records%3A+main+committees%3A+summary+of+resolutions+and+decisions&scope=%2F&rpp=10&sort_by=score&order=desc&page=1
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- 14 https://apps.who.int/iris/handle/10665/85738?search-result=true&query=Second+World+Health+Assembly%2C+Geneva+24+June+to+24+July+1948%3A+plenary+meetings%3A+verbatim+records%3A+main+committees%3A+summary+of+resolutions+and+decisions&scope=%2F&rpp=10&sort_by=score&order=desc&page=2
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- 18 https://apps.who.int/iris/bitstream/handle/10665/85781/Official_record144_eng.pdf?sequence=1&isAllowed=y
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- 20 https://apps.who.int/iris/handle/10665/85801?search-result=true&query=Twentieth+world+health+assembly+verbatim+records&scope=%2F&rpp=10&sort_by=score&order=desc
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- 22 https://apps.who.int/iris/bitstream/handle/10665/85817/Official_record177_eng.pdf?sequence=1&isAllowed=y
- 23 https://apps.who.int/iris/bitstream/handle/10665/85825/Official_record185_eng.pdf?sequence=1&isAllowed=y
- 24 https://apps.who.int/iris/handle/10665/85835?search-result=true&query=Twenty+fourth+World+Health+Assembly+verbatim+records&scope=%2F&rpp=10&sort_by=score&order=desc
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- 26 https://apps.who.int/iris/bitstream/handle/10665/85863/Official_record210_eng.pdf?sequence=1&isAllowed=y
- 27 https://apps.who.int/iris/bitstream/handle/10665/85875/Official_record218_eng.pdf?sequence=1&isAllowed=y
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- 45 https://apps.who.int/iris/handle/10665/175630?search-result=true&query=WHA45%2F1992%2FREC%2F1&scope=&rpp=10&sort_by=score&order=desc
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- 47 https://apps.who.int/iris/handle/10665/177049?search-result=true&query=WHA47%2F1994%2FREC%2F1&scope=&rpp=10&sort_by=score&order=desc
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Supplement Table 2. Overview of gendered prefixes/names used for inferring likely gender based on the list of delegates provided in WHO documentation.

Men's prefixes	Women's Prefixes	Not gendered
Baron	Dame	Abbot
Comte	Datin	Admiral
Dato	Dra. (Spanish)	Archbishop
King	First Lady	Assoc. Prof.
Lord	Lady	Brigadier
M. (French)	Miss	Captain
Monsignor	Mlle. (French)	Cardinal
Mr.	Mme. (French)	Colonel (Col.)
Pehin	Mrs.	Comte
Prince	Ms.	Count
Rev. Father	Princess	Dr.
Shk.	Profesora (Spanish)	Dr. Jur.
Sir.	Queen	H.E.
Sr.	Sister	Inspecteur General
Sultan	Sra. (Spanish)	Lt. Col.
Tan Sri	Srta. (Spanish)	Prof.
		Reverend
		Senator
		Surgeon General
		The Hon.
		Vice Amiral

Supplement Table 3. Recoding of (former) countries, territories and political parties including their geopolitical context.

Recoded (former) country names		
Extracted	Recoded as	Geopolitical context
Burma	Myanmar	"Union of Burma" was renamed "Union of Myanmar" in 1989 by the military government. Myanmar being the Burmese word for Burma. ⁶
Ceylon	Sri Lanka	In 1948, the colony of Ceylon gained independence from the British. In 1972 Ceylon was renamed the "Republic of Sri Lanka." ⁶
Congo-Brazzaville	Republic of the Congo	When the French colonized this region, Brazzaville (the region's capital) was used in the name to distinguish from the DRC. ⁷
Congo-Leopoldville	Democratic Republic of the Congo (DRC)	The DRC was named in 1964, but the capital name Leopoldville was used to distinguish from the Republic of the Congo. Leopoldville was renamed Kinshasa in 1966. ⁸
Dahomey	Benin	Dahomey was a kingdom in Benin, but the name formally changed to the "Republic of Benin" in 1990. ⁶
Democratic Kampuchea	Cambodia	Between 1975 and 1979, Democratic Kampuchea was the name given to Marxist-Leninist controlled Cambodia. ⁹
Federation of Nigeria	Nigeria	From 1954-1960, the Federation of Nigeria was the name of the British protectorate until the country gained formal independence in 1960. ⁶
Former Yugoslav Rep of Macedonia	Republic of North Macedonia	In 1991, the Republic of Macedonia (which was renamed as the Republic of North Macedonia in 2019) became one of the successor states of Yugoslavia. ⁶
Gold Coast	Ghana	The Gold Coast was a former British colony and was renamed Ghana upon independence in 1957. ⁶
Khmer Republic	Cambodia	The Khmer Republic was declared after a military coup in 1970. It fell in 1975 and the Kingdom of Cambodia was restored briefly until 1976 when it became Democratic Kampuchea. ⁹
Libyan Arab Jamahiriya & Libyan Arab Republic	Libya	Libya's name changed several times while Muammar Gaddafi was in power. From 1969-1977, it was the Libyan Arab Republic. In 1977, it became the Socialist People's Libyan Arab Jamahiriya. In 1986, it was known as the Great Socialist People's Libyan Arab Jamahiriya. The fall of the last pro-Gaddafi site and Gaddafi's assassination in 2011 marked the end of the Libyan Arab Jamahiriya. ^{6,10}
Northern Rhodesia	Zambia	Northern Rhodesia was a British protectorate in South Central Africa, and became independent in 1964 as Zambia. ⁶
Palestine Liberation Organization	Palestine	The Palestinian Liberation Organization, founded in 1964, serves as the official government of the State of Palestine and has received UN observer status since 1974. ¹¹
People's Republic of the Congo	Republic of the Congo	The People's republic of Congo was a Marxist-Leninist one-party socialist state between 1969-1992 in the Republic of the Congo. ⁷
Siam	Thailand	Siam was the historical name for the Kingdom of Thailand until 1939. It was briefly known as Siam again from 1946-1948 and then reverted to Thailand in 1948. ¹²
Southern Rhodesia	Zimbabwe	A land locked self-governing colony of the Britain that existed from 1932 to 1979 is now part of present-day Zimbabwe. ⁶
Swaziland	Eswatini	Swaziland was the English name for the Kingdom of Eswatini. Swaziland was a British protectorate from 1903-1968. The name was officially changed to Eswatini (the Swazi language) in 2018. ⁶

Tanganyika	Tanzania	The Kingdom of Tanganyika was renamed as Tanzania in 1964. ⁶
Ukrainian Soviet Socialist Republic	Ukraine	Soviet Ukraine was one of the constituent republics of the Soviet Union from 1919-1991. ¹³
Union of South Africa	South Africa	In 1910, the South Africa Act brought together the British Cape colonies as the Union of South Africa. It was dissolved and became the Republic of South Africa in 1961. ¹⁴
Upper Volta	Burkina Faso	Upper Volta gained independence from the French in 1960 and renamed to Burkina Faso in 1984. ⁶
Vatican City	Holy See	The Holy See describes the region under the jurisdiction of the Pope, which includes Vatican City. ¹⁵
Western Samoa	Samoa	Samoa gained independence from New Zealand in 1962 and was known as Western Samoa until 1997. ⁶
Zaire	Democratic Republic of the Congo	Following a coup in 1965, the country was renamed as the Republic of Zaire in 1971 until 1997 when its name reverted to the Democratic Republic of the Congo. ⁶
Zanzibar	United Republic of Tanzania	In 1964, the United Republic of Tanganyika and Zanzibar was renamed as the United Republic of Tanzania, where Zanzibar remains as a self-governing state. ¹⁶

Not recoded, including (former) countries, (former) territories, and (former) political party names

Country, territory, political party	Geopolitical context
African National Congress (South Africa)	South African political party was founded in 1912 as the South African Native National Congress. The main goal was to maintain voting rights for Black Africans and Coloured persons in Cape Province. In 1923 it was renamed as the African National Congress and from 1940 it focused on eliminating apartheid. Between 1960-1990 the ANC was banned. After the ban in 1994 Nelson Mandela (president of ANC) was elected the head of government. ¹⁷
African National Congress (Zimbabwe)	The Southern Rhodesia African National Congress was a political party in Southern Rhodesia over 1957-1959. The party was committed to promoting the welfare of indigenous Africans. ¹⁸
African Party for the Independence of Guinea and Cape Verde	Political party in Guinea-Bissau founded in 1954 (abbreviation PAIGC). It was originally formed to advocate for the independence from Portugal. Guinea-Bissau gained independence in 1973. PAIGC also governed Cape Verde from 1975 to 1980. ¹⁹
Chinese Taipei	In most international forums and organisations, Taiwan (Republic of China) participates under the name "Chinese Taipei as compromise with the People's Republic of China (PRC). ²⁰
Czechoslovakia	Czechoslovakia was a sovereign state in central Europe from 1918 until sometime between 1939-1945. ²¹
Federation of Malaya	The Federation of Malaya unified the territories that were British colonies and existed between 1948 and 1963. ²²
Federation of Rhodesia and Nyasaland	The Federation of Rhodesia and Nyasaland, also known as the Central African Federation, was a colonial federation that consisted of three southern African territories: the self-governing British colony of Southern Rhodesia and the British protectorates of Northern Rhodesia and Nyasaland. It existed between 1953 and 1963. ^{6,23}
German Democratic Republic (East Germany)	East Germany, officially the German Democratic Republic, was a state that existed from 1949 to 1990 in eastern Germany as part of the Eastern Bloc in the Cold War. ²⁴
Germany - British Zone of Occupation	Post-World War II, the country was divided into four occupation zones from 1945 to 1949. In May 1949 the British, French, and American zones were joined to form the Federal Republic of Germany. ²⁵
Germany - French Zone of Occupation	Post-World War II, the country was divided into four occupation zones from 1945 to 1949. In May 1949 the British, French, and American zones were joined to form the Federal Republic of Germany. ²⁵
Germany - American Zone of Occupation	Post-World War II, the country was divided into four occupation zones from 1945 to 1949. In May 1949 the British, French, and American zones were joined to form the Federal Republic of Germany. ²⁵

Holy See	The Holy See is the universal government of the Catholic Church. It operates from Vatican City State which is an sovereign, independent territory. The Holy See has a permanent observer status at the United Nations. ¹⁵
Morocco (French Zone)	The French protectorate of Morocco was the French military occupation of a large part of Morocco. The protectorate was officially established 30 March 1912, when Sultan Abd al-Hafid signed the Treaty of Fes. Independence was proclaimed in 1956. ²⁶
Morocco (Spanish Zone)	The Spanish protectorate in Morocco existed from 1912 to 1956 and is now part of present-day Morocco. ²⁶
Muscat and Oman	The Sultanate of Muscat and Oman, was a sovereign state that encompassed the present-day Oman and parts of present-day United Arab Emirates and Gwadar, Pakistan. It existed between 1856–1970. ²⁷
North Vietnam	North Vietnam was a socialist state in Southeast Asia from 1945 to 1976. Also called Democratic Republic of Vietnam (DRV). ²⁸
Order of Malta	Since 1113 the Sovereign Order of Malta is a lay religious order of the Catholic Church and a subject of international law. The Order of Malta has diplomatic relations with over 100 states and has a permanent observer status at the United Nations. ²⁹
Palestine	Palestine is considered to be a de jure sovereign state in Western Asia, comprising the Gaza strip, West Bank and parts of modern Israel. ²²
Pan Africanist Congress of Azania (South Africa)	The Pan Africanist Congress of Azania was a national liberation movement and now a political party, formally launched in 1959 that advocates for a South Africa based on African nationalism. ³⁰
Patriotic Front (Zimbabwe)	This was a coalition of two parties (the Zimbabwe African People's Union (ZAPU) and the Zimbabwe African National Union (ZANU) which collaborated against White minority rule in Rhodesia. ³¹
Puerto Rico	Puerto Rico is an unincorporated territory of the United States, but not an independent country or U.S. state. ³²
Ruanda-Urundi	Ruanda-Urundi (also Rwanda-Burundi) was a colonial territory ruled by Belgium from 1916-1962. ³³
Seychelles Democratic Party	Political party in the Seychelles that was founded in 1964. It governed Seychelles from 1976-1977. ³⁴
Seychelles Popular Party	Liberal political party in the Seychelles, which was formed in 1994 by the merger of the National Alliance Party, Parti Seselwa and the Seychelles National Movement.
Serbia and Montenegro	Serbia and Montenegro existed between 1992-2006, when it was dissolved after the breakup of Yugoslavia. ³⁵
South Vietnam	A part of present-day Vietnam that was a separate country from 1955 to 1975 during the Cold War. ²⁸
South Yemen	A country that existed from 1967-1990 in what are now the eastern provinces of present-day Republic of Yemen and the island of Socotra. ³⁶
Southern Korea (American Zone of Occupation)	The Southern half of the Korean Peninsula was governed by the United States Army Military Government in Korea from September 1945 to August 1948. ³⁷
Tokelau	Dependent territory of New Zealand, previously known as the Union Islands. ³⁸
Union of the Soviet Socialist Republics	The USSR was a communist state that existed from 1922 to 1991 and spanned Eurasia. Its dissolution led to multiple nation states including Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. ³⁹
United Arab Republic	Between 1958 and 1971, the United Arab Republic was a sovereign state in the Middle East - until 1961 this was a political relationship between Egypt and Syria, at which point Syria seceded after a coup. Egypt continued to be known as the United Arab Republic until 1971. ⁴⁰
Yugoslavia	A nation that was founded after WWI and was dissolved after a number of conflicts in the early 1990s. Was made up of what is present day Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia (including the regions of Kosovo and Vojvodina) and Slovenia. ⁴¹

Supplement Table 4. Classification of countries, territories and political parties in World Health Organization (WHO) region, United Nations (UN) region, World Bank region, World Bank income group and gender inequality index (GII).

Country	WHO region 2022 ³	UN region 2022 ¹	World Bank region 2022 ²	World Bank income group 2022 ²	GII 2019 ⁴²
Afghanistan	Eastern Mediterranean	Asia and Pacific	South Asia	Low-income	0.655
African National Congress (South Africa)	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
African National Congress (Zimbabwe)	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
African Party for the Independence of Guinea and Cape Verde	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
Albania	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.181
Algeria	Africa	Africa	Middle East and North Africa	Lower-middle-income	0.429
Andorra	Europe	Western European and Other	Europe and Central Asia	High-income	NA
Angola	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.536
Antigua and Barbuda	Americas	Latin America and Caribbean	Latin America and Caribbean	High-income	NA
Argentina	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.328
Armenia	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.245
Australia	Western Pacific	Western European and Other	East Asia and Pacific	High-income	0.097
Austria	Europe	Western European and Other	Europe and Central Asia	High-income	0.069
Azerbaijan	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.323
Bahamas	Americas	Latin America and Caribbean	Latin America and Caribbean	High-income	0.341
Bahrain	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	High-income	0.212
Bangladesh	South-East Asia	Asia and Pacific	South Asia	Lower-middle-income	0.537
Barbados	Americas	Latin America and Caribbean	Latin America and Caribbean	High-income	0.252
Belarus	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.118
Belgium	Europe	Western European and Other	Europe and Central Asia	High-income	0.043
Belize	Americas	Latin America and Caribbean	Latin America and Caribbean	Lower-middle-income	0.415
Benin	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.612

Bhutan	South-East Asia	Asia and Pacific	South Asia	Lower-middle-income	0.421
Bolivia	Americas	Latin America and Caribbean	Latin America and Caribbean	Lower-middle-income	0.417
Bosnia and Herzegovina	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.149
Botswana	Africa	Africa	Sub-Saharan Africa	Upper-middle-income	0.465
Brazil	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.408
Brunei Darussalam	Western Pacific	Asia and Pacific	East Asia and Pacific	High-income	0.255
Bulgaria	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.206
Burkina Faso	Africa	Africa	Sub-Saharan Africa	Low-income	0.594
Burundi	Africa	Africa	Sub-Saharan Africa	Low-income	0.504
Cambodia	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.474
Cameroon	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.560
Canada	Americas	Western European and Other	North America	High-income	0.08
Cape Verde	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.397
Central African Republic	Africa	Africa	Sub-Saharan Africa	Low-income	0.68
Chad	Africa	Africa	Sub-Saharan Africa	Low-income	0.71
Chile	Americas	Latin America and Caribbean	Latin America and Caribbean	High-income	0.247
China	Western Pacific	Asia and Pacific	East Asia and Pacific	Upper-middle-income	0.168
Chinese Taipei	Western Pacific*	Asia and Pacific*	East Asia and Pacific	High-income	NA
Colombia	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.428
Comoros	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	NA
Cook Islands	Western Pacific	Asia and Pacific	East Asia and Pacific	NA	NA
Costa Rica	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.288
Cote d'Ivoire	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.638
Croatia	Europe	Eastern European	Europe and Central Asia	High-income	0.116
Cuba	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.304
Cyprus	Europe	Asia and Pacific	Europe and Central Asia	High-income	0.086

Czech Republic	Europe	Eastern European	Europe and Central Asia	High-income	0.136
Czechoslovakia	Europe*	Eastern European*	Europe and Central Asia*	NA	NA
Democratic People's Republic of Korea (North Korea)	South-East Asia	Asia and Pacific	East Asia and Pacific	Low-income	NA
Democratic Republic of Congo	Africa	Africa	Sub-Saharan Africa	Low-income	0.617
Denmark	Europe	Western European and Other	Europe and Central Asia	High-income	0.038
Djibouti	Eastern Mediterranean	Africa	Middle East and North Africa	Lower-middle-income	NA
Dominica	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	NA
Dominican Republic	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.455
Ecuador	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.384
Egypt	Eastern Mediterranean	Africa	Middle East and North Africa	Lower-middle-income	0.449
El Salvador	Americas	Latin America and Caribbean	Latin America and Caribbean	Lower-middle-income	0.383
Equatorial Guinea	Africa	Africa	Sub-Saharan Africa	Upper-middle-income	NA
Eritrea	Africa	Africa	Sub-Saharan Africa	Low-income	NA
Estonia	Europe	Eastern European	Europe and Central Asia	High-income	0.086
Eswatini	Africa	Africa	Sub-Saharan Africa	Low-income	0.567
Ethiopia	Africa	Africa	Sub-Saharan Africa	Low-income	0.517
Faroe Islands	Europe*	Western European and Other*	Europe and Central Asia	High-income	NA
Federal Republic of Germany	Europe	Western European and Other	Europe and Central Asia	High-income	0.084
Federated States of Micronesia	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	NA
Federation of Malaya	Western Pacific*	Asia and Pacific*	East Asia and Pacific*	NA	NA
Federation of Rhodesia and Nyasaland	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
Fiji	Western Pacific	Asia and Pacific	East Asia and Pacific	Upper-middle-income	0.37
Finland	Europe	Western European and Other	Europe and Central Asia	High-income	0.047
France	Europe	Western European and Other	Europe and Central Asia	High-income	0.049
Gabon	Africa	Africa	Sub-Saharan Africa	Upper-middle-income	0.525
Gambia	Africa	Africa	Sub-Saharan Africa	Low-income	0.612

Georgia	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.331
German Democratic Republic	Europe*	Eastern European*	Europe and Central Asia*	NA	NA
Germany - Americal Zone of Occupation	Europe*	Western European and Other*	Europe and Central Asia*	NA	NA
Germany - British Zone of Occupation	Europe*	Western European and Other*	Europe and Central Asia*	NA	NA
Germany - French Zone of Occupation	Europe*	Western European and Other*	Europe and Central Asia*	NA	NA
Ghana	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.538
Greece	Europe	Western European and Other	Europe and Central Asia	High-income	0.116
Grenada	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	NA
Guatemala	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.479
Guinea	Africa	Africa	Sub-Saharan Africa	Low-income	NA
Guinea Bissau	Africa	Africa	Sub-Saharan Africa	Low-income	NA
Guyana	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.462
Haiti	Americas	Latin America and Caribbean	Latin America and Caribbean	Lower-middle-income	0.636
Holy See	NA	NA	NA	NA	NA
Honduras	Americas	Latin America and Caribbean	Latin America and Caribbean	Lower-middle-income	0.423
Hungary	Europe	Eastern European	Europe and Central Asia	High-income	0.233
Iceland	Europe	Western European and Other	Europe and Central Asia	High-income	0.058
India	South-East Asia	Asia and Pacific	South Asia	Lower-middle-income	0.488
Indonesia	South-East Asia	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.48
Iraq	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	Upper-middle-income	0.577
Ireland	Europe	Western European and Other	Europe and Central Asia	High-income	0.093
Islamic Republic of Iran	Eastern Mediterranean	South Asia	Middle East and North Africa	Lower-middle-income	0.459
Israel	Europe	Western European and Other	Middle East and North Africa	High-income	0.109
Italy	Europe	Western European and Other	Europe and Central Asia	High-income	0.069
Jamaica	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.396
Japan	Western Pacific	Asia and Pacific	East Asia and Pacific	High-income	0.094

Jordan	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	Upper-middle-income	0.45
Kazakhstan	Europe	Asia and Pacific	Europe and Central Asia	Upper-middle-income	0.19
Kenya	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.518
Kiribati	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	NA
Kuwait	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	High-income	0.242
Kyrgyzstan	Europe	Asia and Pacific	Europe and Central Asia	Lower-middle-income	0.369
Lao People's Democratic Republic	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.459
Latvia	Europe	Eastern European	Europe and Central Asia	High-income	0.176
Lebanon	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	Upper-middle-income	0.411
Lesotho	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.553
Liberation front of the Somalian Coast	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
Liberia	Africa	Africa	Sub-Saharan Africa	Low-income	0.65
Libya	Eastern Mediterranean	Africa	Middle East and North Africa	Upper-middle-income	0.252
Lithuania	Europe	Eastern European	Europe and Central Asia	High-income	0.124
Luxembourg	Europe	Western European and Other	Europe and Central Asia	High-income	0.065
Madagascar	Africa	Africa	Sub-Saharan Africa	Low-income	NA
Malawi	Africa	Africa	Sub-Saharan Africa	Low-income	0.565
Malaysia	Western Pacific	Asia and Pacific	East Asia and Pacific	Upper-middle-income	0.253
Maldives	South-East Asia	Asia and Pacific	South Asia	Upper-middle-income	0.369
Mali	Africa	Africa	Sub-Saharan Africa	Low-income	0.671
Malta	Europe	Western European and Other	Middle East and North Africa	High-income	0.175
Marshall Islands	Western Pacific	Asia and Pacific	East Asia and Pacific	Upper-middle-income	NA
Mauritania	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.634
Mauritius	Africa	Africa	Sub-Saharan Africa	Upper-middle-income	0.347
Mexico	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.322
Moldova	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.204

Monaco	Europe	Western European and Other	Europe and Central Asia	High-income	NA
Mongolia	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.322
Montenegro	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.109
Morocco	Eastern Mediterranean	Africa	Middle East and North Africa	Lower-middle-income	0.454
Morocco - French Zone	Eastern Mediterranean*	Africa*	Middle East and North Africa*	NA	NA
Morocco - Spanish Zone	Eastern Mediterranean*	Africa*	Middle East and North Africa*	NA	NA
Mozambique	Africa	Africa	Sub-Saharan Africa	Low-income	0.523
Muscat and Oman	Eastern Mediterranean*	Africa*	Middle East and North Africa*	NA	NA
Myanmar	South-East Asia	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.478
Namibia	Africa	Africa	Sub-Saharan Africa	Upper-middle-income	0.44
Nauru	Western Pacific	Asia and Pacific	East Asia and Pacific	High-income	NA
Nepal	South-East Asia	Asia and Pacific	South Asia	Lower-middle-income	0.452
Netherlands	Europe	Western European and Other	Europe and Central Asia	High-income	0.043
New Zealand	Western Pacific	Western European and Other	East Asia and Pacific	High-income	0.123
Nicaragua	Americas	Latin America and Caribbean	Latin America and Caribbean	Lower-middle-income	0.428
Niger	Africa	Africa	Sub-Saharan Africa	Low-income	0.642
Nigeria	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	NA
Niue	Western Pacific	Asia and Pacific*	East Asia and Pacific*	NA	NA
North Vietnam	Western Pacific*	Asia and Pacific*	East Asia and Pacific*	NA	NA
Norway	Europe	Western European and Other	Europe and Central Asia	High-income	0.045
Oman	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	High-income	0.306
Order of Malta	NA	NA	NA	NA	NA
Pakistan	Eastern Mediterranean	Asia and Pacific	South Asia	Lower-middle-income	0.538
Palau	Western Pacific	Asia and Pacific	East Asia and Pacific	High-income	NA
Palestine	Europe*	Western European and Other*	Middle East and North Africa*	NA	NA
Pan Africanist Congress of Azania (South Africa)	Africa*	Africa*	Sub-Saharan Africa*	NA	NA

Panama	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.407
Papua New Guinea	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.725
Paraguay	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.446
Patriotic Front (Zimbabwe)	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
Peru	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.395
Philippines	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.43
Poland	Europe	Eastern European	Europe and Central Asia	High-income	0.115
Portugal	Europe	Western European and Other	Europe and Central Asia	High-income	0.075
Puerto Rico	Americas*	Western European and Other*	Latin America and Caribbean	High-income	0.204
Qatar	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	High-income	0.185
Republic of Congo	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.57
Republic of Korea	South-East Asia	Asia and Pacific	East Asia and Pacific	High-income	0.064
Republic of North Macedonia	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.143
Romania	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.276
Ruanda-Urundi	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
Russian Federation	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.225
Rwanda	Africa	Africa	Sub-Saharan Africa	Low-income	0.402
Saint Kitts and Nevis	Americas	Latin America and Caribbean	Latin America and Caribbean	High-income	NA
Saint Lucia	Americas	Latin America and Caribbean	Latin America and Caribbean	Lower-middle-income	0.401
Saint Vincent and the Grenadines	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	NA
Samoa	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.36
San Marino	Europe	Western European and Other	Europe and Central Asia	High-income	NA
Sao Tome and Principe	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.537
Saudi Arabia	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	High-income	0.252
Senegal	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.533
Serbia	Europe	Eastern European	Europe and Central Asia	Upper-middle-income	0.132

Serbia and Montenegro	Europe*	Eastern European*	Europe and Central Asia*	NA	NA
Seychelles	Africa	Africa	Sub-Saharan Africa	High-income	NA
Seychelles Democratic Party	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
Seychelles Popular Party	Africa*	Africa*	Sub-Saharan Africa*	NA	NA
Sierra Leone	Africa	Africa	Sub-Saharan Africa	Low-income	0.644
Singapore	South-East Asia	Asia and Pacific	East Asia and Pacific	High-income	0.065
Slovakia	Europe	Eastern European	Europe and Central Asia	High-income	0.191
Slovenia	Europe	Eastern European	Europe and Central Asia	High-income	0.063
Solomon Islands	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	NA
Somalia	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	NA
South Africa	Africa	Africa	Sub-Saharan Africa	Upper-middle-income	0.406
South Sudan	Africa	Africa	Sub-Saharan Africa	Low-income	NA
South Vietnam	Western Pacific*	Asia and Pacific*	East Asia and Pacific*	NA	NA
South Yemen	Eastern Mediterranean*	Asia and Pacific*	Middle East and North Africa*	NA	NA
Southern Korea - American Zone of Occupation	South-East Asia*	Asia and Pacific*	East Asia and Pacific*	NA	NA
Spain	Europe	Western European and Other	Europe and Central Asia	High-income	0.07
Sri Lanka	South-East Asia	Asia and Pacific	South Asia	Lower-middle-income	0.401
Sudan	Eastern Mediterranean	Africa	Sub-Saharan Africa	Low-income	0.545
Suriname	Americas	Latin America and Caribbean	Latin America and Caribbean	Upper-middle-income	0.436
Sweden	Europe	Western European and Other	Europe and Central Asia	High-income	0.039
Switzerland	Europe	Western European and Other	Europe and Central Asia	High-income	0.025
Syrian Arab Republic	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	Low-income	0.482
Tajikistan	Europe	Asia and Pacific	Europe and Central Asia	Lower-middle-income	0.314
Thailand	South-East Asia	Asia and Pacific	East Asia and Pacific	Upper-middle-income	0.359
Timor Leste	South-East Asia	Asia and Pacific	East Asia and Pacific	Lower-middle-income	NA
Togo	Africa	Africa	Sub-Saharan Africa	Low-income	0.573

Tokelau	Western Pacific*	Western European and Other*	East Asia and Pacific*	NA	NA
Tonga	Western Pacific	Asia and Pacific	East Asia and Pacific	Upper-middle-income	0.354
Trinidad and Tobago	Americas	Latin America and Caribbean	Latin America and Caribbean	High-income	0.323
Tunisia	Eastern Mediterranean	Africa	Middle East and North Africa	High-income	0.296
Turkey	Europe	Western European and Other	Europe and Central Asia	Upper-middle-income	0.306
Turkmenistan	Europe	Asia and Pacific	Europe and Central Asia	Upper-middle-income	NA
Tuvalu	Western Pacific	Asia and Pacific	East Asia and Pacific	Upper-middle-income	NA
Uganda	Africa	Africa	Sub-Saharan Africa	Low-income	0.535
Ukraine	Europe	Eastern European	Europe and Central Asia	Lower-middle-income	0.234
Union of the Soviet Socialist Republics	Europe*	Eastern European*	Europe and Central Asia*	NA	NA
United Arab Emirates	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	High-income	0.079
United Arab Republic	Eastern Mediterranean*	Asia and Pacific*	Middle East and North Africa*	NA	NA
United Kingdom	Europe	Western European and Other	Europe and Central Asia	High-income	0.118
United Republic of Tanzania	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.556
United States of America	Americas	Western European and Other	North America	High-income	0.204
Uruguay	Americas	Latin America and Caribbean	Latin America and Caribbean	High-income	0.288
Uzbekistan	Europe	Asia and Pacific	Europe and Central Asia	Lower-middle-income	0.288
Vanuatu	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	NA
Venezuela	Americas	Latin America and Caribbean	Latin America and Caribbean	NA [†]	0.479
Vietnam	Western Pacific	Asia and Pacific	East Asia and Pacific	Lower-middle-income	0.296
Yemen	Eastern Mediterranean	Asia and Pacific	Middle East and North Africa	Low-income	0.795
Yugoslavia	Europe*	Eastern European*	Europe and Central Asia*	NA	NA
Zambia	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.539
Zimbabwe	Africa	Africa	Sub-Saharan Africa	Lower-middle-income	0.527

*Refer to former and current countries, territories or political parties for which we have extended the WHO region, UN region and World Bank region classifications based on their former or current geographical location.

[†] Venezuela has been temporarily unclassified in the World Bank income groupings, pending revised national accounts statistics (per July 2021).²

Table 5. Included Worldwide Governance Indicators (World Bank).^{4,5}

Country / Territory	Voice and Accountability Worldwide Governance Indicator (2019)	Government Effectiveness Worldwide Governance Indicator (2019)
Afghanistan	-1.006792426109314	-1.4630650281906128
Albania	0.14271074533462524	-6.2213201075792313E-2
Algeria	-1.056199312210083	-0.51639986038208008
Antigua and Barbuda	0.73324227333068848	-4.1233780793845654E-3
Argentina	0.57400608062744141	-8.6998365819454193E-2
Armenia	5.5476590991020203E-2	-6.6646300256252289E-2
Australia	1.2674413919448853	1.5715552568435669
Austria	1.3387953042984009	1.5277369022369385
Azerbaijan	-1.5295077562332153	-0.14017026126384735
Bahrain	-1.4292947053909302	0.29849055409431458
Bangladesh	-0.74182093143463135	-0.74028491973876953
Belgium	1.3102433681488037	1.1481317281723022
Bhutan	7.4757985770702362E-2	0.31243914365768433
Bolivia	-0.11432570219039917	-0.69932210445404053
Botswana	0.49996182322502136	0.42825746536254883
Brazil	0.29746577143669128	-0.186902716755867
Bulgaria	0.35563969612121582	0.26338973641395569
Burkina Faso	-0.20275132358074188	-0.75875735282897949
Burundi	-1.7234870195388794	-1.3264447450637817
Canada	1.4319146871566772	1.7312934398651123
Central African Republic	-1.2193750143051147	-1.7469326257705688
Chad	-1.4344154596328735	-1.5684139728546143
Chile	0.99114978313446045	1.0602893829345703
China	-1.6281181573867798	0.51700061559677124
Colombia	0.20484550297260284	7.0711903274059296E-2
Costa Rica	1.096335768699646	0.4225594699382782
Cuba	-1.4406877756118774	-0.17278853058815002
Cyprus	1.0486133098602295	0.99218153953552246
Denmark	1.5452375411987305	1.9102110862731934
El Salvador	0.11417551338672638	-0.46541833877563477
Federal Republic of Germany	1.3555911779403687	1.5311622619628906
Fiji	2.1415282040834427E-2	0.19961780309677124
Finland	1.564906120300293	2.006594181060791
France	1.1164376735687256	1.3721402883529663
Gabon	-1.0492092370986938	-0.89782404899597168
Georgia	0.16872023046016693	0.82873988151550293

Ghana	0.55790746212005615	-0.21064327657222748
Greece	0.81240028142929077	0.34902435541152954
Guatemala	-0.33547094464302063	-0.67697829008102417
Honduras	-0.57272619009017944	-0.6119987964630127
Hungary	0.34397643804550171	0.49605315923690796
Iceland	1.3039740324020386	1.5179398059844971
Indonesia	0.13210906088352203	0.18205122649669647
Ireland	1.3050894737243652	1.291791558265686
Islamic Republic of Iran	-1.3869702816009521	-0.55372565984725952
Israel	0.66013967990875244	1.3253247737884521
Italy	0.90664374828338623	0.48317438364028931
Jamaica	0.61428910493850708	0.49398410320281982
Japan	0.93134206533432007	1.5863221883773804
Kenya	-0.31264817714691162	-0.38339018821716309
Kuwait	-0.65525496006011963	1.8212368711829185E-2
Latvia	0.85714906454086304	1.1047132015228271
Libya	-1.4748243093490601	-1.9222908020019531
Lithuania	0.9963756799697876	1.0430692434310913
Luxembourg	1.4935524463653564	1.7332957983016968
Madagascar	-0.24306319653987885	-1.1426148414611816
Malaysia	-4.9003709107637405E-2	0.99746757745742798
Mauritius	0.78070950508117676	0.8703991174697876
Mexico	7.9714525490999222E-3	-0.15678699314594269
Monaco	0.65803587436676025	NA
Mongolia	0.32375407218933105	-0.19543415307998657
Morocco	-0.64730942249298096	-0.11948017030954361
Netherlands	1.4854559898376465	1.8032723665237427
New Zealand	1.5352920293807983	1.6705572605133057
Nicaragua	-1.0954198837280273	-0.77085143327713013
Nigeria	-0.43453225493431091	-1.0888626575469971
Oman	-1.1543257236480713	0.25904110074043274
Pakistan	-0.86280936002731323	-0.67713558673858643
Panama	0.59518170356750488	6.4511820673942566E-2
Paraguay	5.8215837925672531E-2	-0.53434425592422485
Peru	0.2613716721534729	-6.7870549857616425E-2
Philippines	6.5084416419267654E-3	5.2008401602506638E-2
Poland	0.6731717586517334	0.53480100631713867
Portugal	1.1964657306671143	1.1686815023422241
Republic of Congo	-1.2791706323623657	-1.387316107749939

Republic of Korea	0.75148493051528931	1.3760876655578613
Romania	0.51632511615753174	-0.16217932105064392
Saudi Arabia	-1.6597045660018921	0.30617403984069824
Senegal	0.23559823632240295	-5.8101300150156021E-2
South Africa	0.64362168312072754	0.36765611171722412
Spain	1.0377616882324219	1.0011752843856812
Sudan	-1.6515998840332031	-1.6220585107803345
Suriname	0.3643706738948822	-0.59028255939483643
Sweden	1.5609753131866455	1.7092572450637817
Switzerland	1.4970487356185913	1.9517581462860107
Thailand	-0.84680747985839844	0.35656705498695374
Togo	-0.74097734689712524	-0.91736841201782227
Tunisia	0.25651702284812927	-0.10294915735721588
Turkey	-0.83429986238479614	4.788932204246521E-2
Uganda	-0.64435797929763794	-0.58546578884124756
United Arab Emirates	-1.1401491165161133	1.3768906593322754
United Kingdom	1.2613987922668457	1.48273766040802
United Republic of Tanzania	-0.52488887310028076	-0.87934422492980957
Venezuela	-1.4283932447433472	-1.6584689617156982
Vietnam	-1.4056812524795532	3.8309685885906219E-2

The Worldwide Governance Indicators are a set of aggregate indicators that combine the views of a large numbers of survey respondents (enterprises, citizens) – combining 30 individual data sources produced by various non-governmental organisations, international organisations, survey institutes, think tanks and private sector firms.

The Voice and Accountability Worldwide Governance Indicator is “*a reflection of the perceived extent to which a country’s citizens are able to participate in selecting their government, freedom of expression, freedom of association and free media.*”^{4,5}

The Government Effectiveness Worldwide Governance Indicator is “*a reflection of the perceived public services quality, civil service quality and degree of independence from political pressure, policy formulation and implementation quality, and the credibility of government’s commitment to policies.*”^{4,5}

Information on the methodology can be found in Kaufmann *et al.* 2010⁵ and

<http://info.worldbank.org/governance/wgi/>

Supplement Table 6. Summary of the data characteristics.

Data	
Membership to the WHA (total N = 75,815)	% (N)
<i>Member State</i>	98.17% (74,430)
<i>Associate Member</i>	0.22% (167)
<i>Observer</i>	1.61% (1,218)
WHA delegation roles (total N = 75,815)	% (N)
<i>Chief Delegate</i>	13.18% (9,994)
<i>Deputy Chief Delegate</i>	4.36% (3,303)
<i>Delegate</i>	20.68% (15,678)
<i>Alternate</i>	46.74% (35,439)
<i>Adviser</i>	13.33% (10,105)
<i>Observer</i>	1.62% (1,231)
<i>Other</i>	0.09% (65)
Inferred gender delegate (total N = 75,815)	% (N)
<i>Men</i>	68.89% (52,230)
<i>Women</i>	25.34% (19,212)
<i>Unknown</i>	5.77% (4,373)
Inferred gender diversity (1948-2021) (total N = 10,944)	% (N)
<i>Majority women (>55% women)</i>	8.88% (972)
<i>Gender parity (45-55% women)</i>	8.26% (904)
<i>Majority men (>55% men)</i>	82.86% (9,068)
WHO Region of delegates (total N = 78,815)	% (N)
<i>Africa</i>	21.09% (15,993)
<i>Americas</i>	15.55% (11,792)
<i>Eastern Mediterranean</i>	11.37% (8,618)
<i>Europe</i>	31.87% (24,164)
<i>South-East Asia</i>	9.14% (6,933)
<i>Western Pacific</i>	10.20% (7,730)
<i>Not applicable</i>	0.77% (585)
Socio-economic status of delegate country (total N = 75,815)	% (N)
<i>High-income</i>	39.16% (29,689)
<i>Upper-middle income</i>	9.99% (7,573)
<i>Lower-middle income</i>	24.75% (18,762)
<i>Low income</i>	22.32% (16,925)
<i>Not applicable</i>	3.78% (2,866)
Other information	
<i>Total number of unique countries, territories, political parties</i>	228
<i>Total number of delegations (1948-2021)</i>	10944
<i>Range of Gender Inequality Index 2019</i>	0.025-0.795
<i>Time period</i>	1948-2021

Supplement Table 7. Woman head of state (HoS), head of government (HoG) or minister of health (MoH) over the past 5 years by country (2017-2022). Former countries, former territories and political parties are considered *not applicable*. Current territories with their own HoS, HoG and MoH are included. Note, the function of HoS has in many parliamentary countries a ceremonial function with a separate HoG (e.g. in the British Monarch), whilst in presidential systems the HoS is often also the HoG. Some semi-presidential system have both a HoS and HoG functioning as *de facto* leaders.

Country	Head of State	Head of Government	Minister of Health
Afghanistan	No	No	No
African National Congress (South Africa)	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
African National Congress (Zimbabwe)	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
African Party for the Independence of Guinea and Cape Verde	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Albania	No	No	Ogerta Manastirliu (2017)
Algeria	No	No	No
Andorra	No	No	No
Angola	No	No	Silvia Paula Valentim Lutucuta (2017-present)
Antigua and Barbuda	Queen Elizabeth II	No	No
Argentina	No	No	Carla Vizzotti (2021-present) Carolina Stanley (2018-2019)
Armenia	No	No	Anahit Avanesyan (2021-present)
Australia	Queen Elizabeth II	No	No
Austria	No	Brigitte Bierlein (2019-2020)	Brigitte Zarfl (2019-2020), Beate Hartinger-Klein (2017-2018)
Azerbaijan	No	No	No
Bahamas	Queen Elizabeth II (1952-present), Gov General Marguerite Pindling (2014-2019)	No	No
Bahrain	No	No	Faeqa bint Saeed Al Saleh (2015-present)
Bangladesh	No	Sheikh Hasina (2009-present)	No
Barbados	Sandra Mason (2021-present)	Mia Mottley (2018-2021)	No
Belarus	No	No	No
Belgium	No	Sophie Wilmès (2019-2020)	Maggie De Block (2014-2020)
Belize	Queen Elizabeth II (1952-present), Gov General Froyla Tzalam (2021-present)	No	No
Benin	No	No	No
Bhutan	No	No	Dasho Dechen Wangmo (2018-present)
Bolivia	Jeanine Áñez (2019-2020)	Jeanine Áñez (2019-2020)	Ariana Campero (2015-2018)
Bosnia and Herzegovina	No	No	No

Botswana	No	No	No
Brazil	No	No	No
Brunei Darussalam	No	No	No
Bulgaria	No	No	Asena Serbezova (2021-present)
Burkina Faso	No	No	Leonie Claudine Lougué Sorgho (2019-2021)
Burundi	No	No	Sabine Ntakarutimana (2010-2020)
Cambodia	No	No	No
Cameroon	No	No	No
Canada	Queen Elizabeth II (1952-present), Gov General Mary Simon (2017-2021) Gov General Julie Payette (2021-present)	No	Patty Hajdu (2019-2021), Ginette Petitpas Taylor (2017-2019), Jane Philpott (2015-2017)
Cape Verde	No	No	No
Central African Republic	No	No	No
Chad	No	No	No
Chile	Michelle Bachelet (2014-2018)	Michelle Bachelet (2014-2018)	María Begoña Yarza (2022-present), Carmen Castillo Taucher (2015-2018)
China	No	No	No
Chinese Taipei (Taiwan)	Tsai Ing-wen (2016-present)	No	No
Colombia	No	No	No
Comoros	No	No	Loub Yakout Zaïdou (2019-present), Fatima Rashid (2017-2019)
Cook Islands	Queen Elizabeth II (1952-present)	No	Rose Toki-Brown (2018-2021)
Costa Rica	No	No	Giselle Amador Munoz (2018-2019)
Cote d'Ivoire	No	No	No
Croatia	Kolinda Grabar-Kitarović (2015-2020)	No	No
Cuba	No	No	No
Cyprus	No	No	No
Czech Republic	No	No	No
Czechoslovakia	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Democratic People's Republic of Korea	No	No	O Chun-bok (2019-2021)
Democratic Republic of Congo	No	No	No
Denmark	Queen Margrethe II (1972-present)	Mette Frederiksen (2019-present)	Ellen Trane Nørby (2016-2019)
Djibouti	No	No	No
Dominica	No	No	No
Dominican Republic	No	No	No
Ecuador	No	No	Ximena Garzón-Villalba (2021-present), Catalina Andramuño (2019-2020), María Verónica Espinosa Serrano (2017-2019)
Egypt	No	No	Hala Zayed (2018-present)

El Salvador	No	No	Violeta Menjívar (2014-2019), Ana Orellana Bendek (2019-present)
Equatorial Guinea	No	No	No
Eritrea	No	No	Amna Nurhusein (2009-present)
Estonia	Kersti Kaljulaid (2016-2021)	Kaja Kallas (2021-present)	Riina Sikkut (2018-2019)
Eswatini	No	No	Lizzy Nkosi (2020-present)
Ethiopia	Sahle-Work Zewde (2018-present)	No	Lia Tadesse (2020-present)
Faroe Islands	Queen Margrethe II (1972-present)	No	Sirið Stenberg (2015-present)
Federal Republic of Germany	No	Angela Merkel	No
Federated States of Micronesia	No	No	No
Federation of Malaya	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Federation of Rhodesia and Nyasaland	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Fiji	No	No	Rosy Sofia Akbar (2018-present)
Finland	No	Sanna Marin (2019-present)	Hanna Sarkkinen (2021-present), Aino-Kaisa Pekonen (2019-2021), Pirkko Mattila (2016-2019)
France	No	No	Agnès Buzyn (2017-2020), Marisol Touraine (2012-2017)
Gabon	No	Rose Christiane Raponda (2020-present)	No
Gambia	No	No	No
Georgia	Salome Zourabichvili (2018-present)	No	Ekaterine Tikaradze (2019-2021)
German Democratic Republic (East Germany)	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Germany - Americal Zone of Occupation	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Germany - British Zone of Occupation	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Germany - French Zone of Occupation	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Ghana	No	No	No
Greece	Katerina Sakellariopoulou (2020 - Present)	No	No
Grenada	Queen Elizabeth II (1952-present), Gov General Cécile La Grenade, (2013 - Present)	No	No
Guatemala	No	No	Amelia Flores (2020-2021), Lucrecia Hernández Mack (2016 - 2017)
Guinea	No	No	No
Guinea Bissau	No	No	Magda Robalo Correia E Silva (2019 - 2020)

Guyana	No	No	Volda Lawrence (2018 - 2020)
Haiti	No	No	Marie Gréta Roy Clement (2017 - Present)
Holy See	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Honduras	Xiomara Castro (2022-Present)	Xiomara Castro (2022-Present)	No
Hungary	No	No	No
Iceland	No	Katrín Jakobsdóttir (2017 - Present)	No
India	No	No	No
Indonesia	No	No	No
Iraq	No	No	No
Ireland	No	No	No
Islamic Republic of Iran	No	No	No
Israel	No	No	No
Italy	No	No	No
Jamaica	Queen Elizabeth II (1952-present)	No	No
Japan	No	No	No
Jordan	No	No	No
Kazakhstan	No	No	Azhar Giniyat (2022-present)
Kenya	No	No	No
Kiribati	No	No	No
Kuwait	No	No	No
Kyrgyzstan	No	No	No
Lao People's Democratic Republic	No	No	No
Latvia	No	No	Ilze Viņķele (2019 - 2021), Anda Chaksha (2016 - 2019)
Lebanon	No	No	No
Lesotho	No	No	No
Liberation front of the Somalian Coast	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Liberia	Ellen Johnson Sirleaf (2006-2018)	Ellen Johnson Sirleaf (2006-2018)	Wilhelmina Jallah (2015-2018), Bernice Dahn (2018-present)
Libya	No	No	No
Lithuania	Dalia Grybauskaitė (2009-2019)	Ingrida Šimonytė (2020-present)	No
Luxembourg	No	No	Paulette Lenert (2020-present), Lydia Mutsch (2013-2018)
Madagascar	No	No	No
Malawi	No	No	Khumbize Kandodo Chiponda (2020-present)
Malaysia	No	No	No
Maldives	No	No	No
Mali	No	No	Fanta Siby
Malta	No	No	No
Marshall Islands	No	No	No
Mauritania	No	No	No
Mauritius	No	No	No

Mexico	No	No	No
Moldova	Maia Sandu (2020-present)	Natalia Gavrilița (2021-present), Maia Sandu (2019)	Ala Nemerenco (2019; 2021-present), Viorica Dumbraveanu (2019-2020)
Monaco	No	No	No
Mongolia	No	No	No
Montenegro	No	No	Jelena Borovinić-Bojović (2020-present)
Morocco	No	No	No
Morocco (French Zone)	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Morocco (Spanish Zone)	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Mozambique	No	No	No
Muscat and Oman	NA	No	No
Myanmar	No	No	No
Namibia	No	Saara Kuugongelwa-Amadhila (2015-present)	No
Nauru	No	No	Isabella Dageago (2019-present)
Nepal	Bidya Devi Bhandari (2015-present)	No	No
Netherlands	No	No	Edith Schippers (2010-2017)
New Zealand	Queen Elizabeth II (1952-present), Gov General Cindy Kiro (2021-present), Gov General Patsy Reddy (2016-2021)	Jacinda Ardern (2017-present)	No
Nicaragua	No	No	Martha Veronica Reyes Alvarez (2020-present), Sonia Castro Gonzalez (2011-2020)
Niger	No	No	No
Nigeria	No	No	No
Niue	Queen Elizabeth II (1952-present), Gov General Cindy Kiro (2021-present), Gov General Patsy Reddy (2016-2021)	No	No
North Vietnam	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Norway	No	No	Ingvild Kjerkol (2021-present)
Oman	No	No	No
Order of Malta	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Pakistan	No	No	No
Palau	No	No	No
Palestine	No	No	Mai al-Kaila (2019-present)
Pan Africanist Congress of Azania (South Africa)	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Panama	No	No	Rosario Turner (2019-2020)
Papua New Guinea	Queen Elizabeth II (1952-present)	No	No
Paraguay	No	No	No
Patriotic Front (Zimbabwe)	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Peru	No	No	Pilar Elena Mazzetti Soler

			(2020-2021), Elizabeth Hinostroza (2019- 2020), Zulema Thomas (2019), Silvia Pesah (2018-2019)
Philippines	No	No	No
Poland	No	No	No
Portugal	No	No	Marta Temido (2018-present)
Puerto Rico	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Qatar	No	No	Hanan Mohamed Al Kuwari (2016-present)
Republic of Congo	No	No	No
Republic of Korea	No	No	No
Republic of North Macedonia	No	No	No
Romania	No	No	No
Ruanda-Urundi	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Russian Federation	No	No	No
Rwanda	No	No	No
Saint Kitts and Nevis	Queen Elizabeth II (1952- present)	No	Akilah Byron-Nisbet (2020- Present)
Saint Lucia	Queen Elizabeth II (1952- present), Gov General Pearlette Louisy (1997-2017)	No	Mary Isaac (2016-present)
Saint Vincent and the Grenadines	Queen Elizabeth II (1952- present), Gov General Susan Dougan (2019-present)	No	No
Samoa	No	Fiamē Naomi Mata‘afa (2021-present)	Faimalotoa Kika Stowers (2019-2021)
San Marino	Grazia Zafferani (2020), Mariella Mularoni (2019), Mimma Zavoli (2017), Vanessa D'Ambrosio (2017) *two captains regents elected every 6 months	N/A	No
Sao Tome and Principe	No	No	No
Saudi Arabia	No	No	No
Senegal	No	No	Awa Marie Coll-Seck (2012- 2017)
Serbia	No	Ana Brnabić (2017-present)	No
Serbia and Montenegro	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Seychelles	No	No	Peggy Vidot (2020-present)
Seychelles Democratic Party	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Seychelles Popular Party	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Sierra Leone	No	No	No
Singapore	Halimah Yacob (2017 - Present)	No	No
Slovakia	Zuzana Čaputová (2019 - Present)	No	No
Slovenia	No	No	No
Solomon Islands	Queen Elizabeth II (1952- present)	No	No
Somalia	No	No	Fawziya Abikar Nur (2017 - Present)

South Africa	No	No	No
South Sudan	No	No	Elizabeth Achuei (2021 - 2022), Awel Deng (2022 - Present)
South Vietnam	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
South Yemen	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Southern Korea – American Zone of Occupation	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Spain	No	No	Carolina Darias (2021 - Present), María Luisa Carcedo (2018 - 2020), Carmen Montón (2018), Dolors Montserrat (2016 - 2018)
Sri Lanka	No	No	Pavithra Wanniarachchi (2019-2021)
Sudan	Raja Nicola (2019 - 2021), Aisha Musa el-Said (2019 - 2021), (Member of Collective HoS)	No	Sara Abdelazeem (2020 - 2021)
Suriname	No	No	No
Sweden	No	Magdalena Andersson (2021 - Present)	Lena Hallengren (2019-Present)
Switzerland	Simonetta Sommaruga (2020), Viola Amherd (2019 - Present), Karin Keller-Sutter (2019 - Present), Doris Leuthard (2006 - 2018), (Swiss Federal Council)	Doris Leuthard (2016 - 2017)	No
Syrian Arab Republic	No	No	No
Tajikistan	No	No	No
Tanganyika	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Thailand	No	No	No
Timor Leste	No	No	Odete Maria Freitas Belo (2020 - Present)
Togo	No	Victoire Tomegah Dogbé (2020 - Present)	No
Tokelau	Queen Elizabeth II	No	No
Tonga	No	No	No
Trinidad and Tobago	Paula-Mae Weekes	No	No
Tunisia	No	Najla Bouden	No
Turkey	No	No	No
Turkmenistan	No	No	No
Tuvalu	Queen Elizabeth II (1952-present), Gov General Teniku Talesi Honolulu (2019-2021)	No	No
Uganda	No	Robinah Nabbanja (2021 - Present)	Jane Aceng
Ukraine	No	No	Zoriana Skaletska (2019-2020), Ulana Suprun (2016-2019)
Union of the Soviet Socialist Republics	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
United Arab Emirates	No	No	No
United Arab Republic	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>

United Kingdom	Queen Elizabeth II	Theresa May (2016-2019)	No
United Republic of Tanzania	Samia Suluhu Hassan (2021-present)	Samia Suluhu Hassan (2021-present)	Ummu Mwalimu (2022-present; 2015-2020), Dorothy Gwajima (2020-2022)
United States of America	No	No	No
Uruguay	No	No	No
Uzbekistan	No	No	No
Vanuatu	No	No	No
Venezuela	No	No	Antonieta Caporale Zamora (2017)
Vietnam	Đặng Thị Ngọc Thịnh (2016 - 2021)	No	Nguyễn Thị Kim Tiến (2019 - 2021)
Yemen	No	No	No
Yugoslavia	<i>Not applicable</i>	<i>Not applicable</i>	<i>Not applicable</i>
Zambia	No	No	No
Zimbabwe	No	No	No

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