2020 is the International Year of the Nurse and the Midwife. This position paper by *Women in Global Health Germany* outlines the situation of women in health professions, both at a global level and in Germany.

Women make up 70 percent of the global health workforce. Additionally, most women provide care to children and the aged – typically without being paid. Many women migrate with the aim for better work and payment conditions, leaving their homes and families. Furthermore, women are affected to a greater extent than men by the effects of climate change and other environmental changes.

The COVID-19 (Sars-CoV-2) pandemic has shown that as women make up a large proportion of the health workforce, they face higher risks of infection. Additionally, as women in general take care of much more household tasks than men, they also face greater challenges due to daycare and school closures and the necessity to combine work from home with childcare and household work.

Thus, women in health professions face more and different challenges compared to their male colleagues. In order to improve the situation, *Women in Global Health Germany* makes the following recommendations:

**Compatibility of work and family, and financial security**
- Flexible work models and ways to re-enter work and full-time positions
- Access to reliable, affordable childcare, also outside of core working hours
- Abolishing the *Ehegattensplitting* income tax policy in Germany
- More education for women on the pension gap caused by part-time work and care periods

**Women in leadership positions in the health sector**
- Parity in leadership and decision-making positions in the health sector
- Ending gender and pension pay gaps
- Further academization of health professions and establishment of nursing and therapist associations

**Migration of healthcare professionals**
- Gathering data on challenges, needs, work and living conditions of migrant healthcare workers in Germany
- Institutionalized expansion of support structures of migrant health workers, establishment of a transnational social security system
- Prevention of ‘brain drain’
Digitalization in the healthcare sector

- Digital products with user-friendly interfaces that are easy to handle, optically attractive, and sex/gender sensitive
- Software specifically designed for healthcare professionals that does not create additional work
- Training concepts that can be integrated into daily work processes

Sex/Gender and health

- New findings of sex and gender differences in medicine and the social sciences should be adequately taken into consideration in the prevention, diagnosis and therapy of diseases
- Support for studies focusing on evidence-based research and practice in the health professions, ensuring gender-sensitive study design, and gender sensitive analysis of findings
- Integration of sex- and gender-specific content into the curricula of the health professions

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Position Paper

Women in Health Professions

Executive Summary

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The COVID-19 (Sars-CoV-2) pandemic has shown that as women make up a large proportion of the health workforce, they face higher risks of infection. Additionally, as women in general take care of much more household tasks than men, they also face greater challenges due to daycare and school closures and the necessity to combine work from home with childcare and household work.

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What is Women in Global Health Germany?

Women in Global Health (WGH) is a globally active network with the aim to achieve more equal opportunities in global health and thus contributing to the improvement of global public health. In 2018, Germany founded the first national “Chapter” of WGH, “Women in Global Health – Germany” (WGH-GER), and established a list of “Women in Global Health - Germany” with 170 qualified women, available at www.womeningh.org/wgh-germany. Since February 2019, WGH-GER is affiliated with the Center for Global Health at the Charité – Medical University Berlin. Additionally, WGH-GER is a member of the Global Health Hub Germany and participated in the revision of the Federal Government's Strategy on Global Health. The European Chapters have established a European Chapters Executive Board, for which Germany currently holds the presidency. Besides Europe, chapters in America, Asia and Africa have been founded. This network exchanges information on a regular basis. A current campaign by WGH is "Operation 50/50" (womeningh.org/covid5050), which was initiated due to the COVID-19 (SARS-CoV-2) pandemic.
Current Situation

International Challenges for Women in Global Health

The growing burden of age-associated diseases and the increasing demand for needs-based healthcare is expected to create 40 million new jobs in the area of health and social care worldwide by 2030. At the same time, the world faces a severe shortage of around 18 million healthcare professionals, particularly in low- and middle-income countries. To achieve the Sustainable Development Goals (SDGs) and the goal of universal health coverage (UHC, SDG 3.8) the enormous challenges in terms of the number and distribution of healthcare professionals need to be tackled. This global mismatch between supply and demand affects the healthcare systems worldwide.

This imbalance can only be corrected if sex/gender-specific dynamics in the occupational fields are taken into account. 70% of the work in health and social care is performed by women - in other areas of employment the figure is only 41%.1 Additionally, worldwide women are taking care of the majority of informal work, e.g. household tasks and childcare, which usually is unpaid. Many women migrate for their job with the expectation of a higher income and leave their place of residence and families. Furthermore, due to social structures, women are affected to a greater extent than men by the direct or indirect effects of climate change and other environmental changes.2 Hence, female healthcare professionals face more and different challenges than their male colleagues. This leads in part to poorer health and socio-economic status and slows down progress in gender equality.

The year 2020 is the International Year of Nurses and Midwives. For the very first time, countries around the globe are celebrating these professional groups and their outstanding contribution to global public health. A report by the UN High-Level Commission on Employment and Inclusive Economic Growth in Healthcare concluded that the investment in education and job creation in the health and social sectors leads to threefold added value such as improved health outcomes for all, global health security and inclusive economic growth.3

Nursing and midwifery professions make up a significant proportion of the female workforce. According to forecasts by the World Health Organization (WHO), these two professions will account for 50% (with around 9 million jobs) of the world’s labour shortage in 2030. Countries in Southeast Asia and Africa are particularly affected by this shortage. Every country needs competent and motivated healthcare professionals who have to be adequately rewarded and recognized for their work.4 Nurses, midwives and community nurses as essential part of home

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3 https://apps.who.int/iris/bitstream/handle/10665/250047/9789241511308-eng.pdf?sequence=1
4 https://www.who.int/news-room/fact-sheets/detail/nursing-and-midwifery
visit teams as well as community health workers form the backbone of healthcare systems in every country and are essential for universal health coverage (UHC).

Women, girls and other marginalized groups must have the opportunity to participate in social life and to be actively involved in shaping it. Gender equality and the promotion of health and well-being are overarching goals at international level. They are included in the 2030 Agenda through the Sustainable Development Goals 3 (Health and Well-being) and 5 (Gender Equality), as well as in the global strategy for the health of women, children and adolescents 2016-2030. Gender sensitive policymaking and the implementation of gender equality in all areas, including health professions, is necessary in order to contribute to the Sustainable Development Goals. As stated by the WHO Director General Dr. Tedros during International Women's Day 2018: "Gender equality must be at the core of health for all." 

Challenges that need to be addressed

Compatibility of work and family, and financial security

Women often still earn less than men for the same job and are less likely to hold managerial positions, including in the health sector. How does this relate to the compatibility of work and family (e.g. children / caring for one's own parents) or the overall work-life balance (e.g. time for paid versus unpaid activities)? What are the effects in the health sector where shift work and long, irregular working hours are the daily norm? Who leaves the job more often? And who is not promoted to managerial positions?

In countries like Germany, where statutory maternity leave and parental leave is the norm, women tend to quit their jobs more often after giving birth. In many countries, including Germany, women generally take longer parental leave than men and are more often taking part-time positions after parental leave. Additionally, women are more often informal caregivers of family members compared to men. This affects their career opportunities and promotions in jobs with long or irregular working hours and shift work and can result in a pension gap. Women also take care of the majority of household work, which leaves them even less time for paid work.

There is still a lack of childcare facilities in Germany (especially outside of core hours or in rural regions). The organization of care in the event of illness or other unplanned circumstances represents a particular challenge. Additionally, large differences in salaries between spouses affects particularly the gross income of women, due to the Ehegottensplitting income tax policy. Critical career phases often overlap with the phase in which women have children or have to look after relatives. Already during their education, many women miss female role

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models as female professors, for example, are still a minority. The proportion of female medical students accounts for around 60%, one therefore often speak of the “feminisation of medicine”. In order to remain in their positions and to counteract the shortage of skilled healthcare professionals, the working conditions must therefore be adapted to the needs of women such as family-friendly duty planning, longer opening hours of childcare facilities, flexible working time models, mobile working, division of labor, job sharing models and the legal right to return from part-time to full-time employment.  

This applies to all health and social care professions.

In Northern Europe, childcare as well as the return to full-time positions are better organized, and the pay gap is smaller. Due to statutory quotas, there are more women in managerial positions than in Germany. Nurses and midwives are better paid, and national policies encourage men to take more parental leave and engage more in housework. This relieves women, helps them to return to work and enables them to cope better with critical career phases.

The approaches to deal with ‘care work’, the support of families and the educational as well as career opportunities for women in the health sector are very heterogeneous around the world. In exchange with international partners, Germany can identify the prerequisites for inclusive policies that empower and support women in the health sector. National strategies and joint international initiatives can be established.

**Recommendations**

- Flexible work models and ways to re-enter work and full-time positions
- Access to reliable, affordable childcare, also outside of core working hours
- Abolishing the *Ehegattensplitting* income tax policy in Germany
- More education for women on the pension gap caused by part-time work and care periods

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Women in leadership positions in the health sector

Worldwide, 70% of the health care workforce and even 90% of the nurses are female.\textsuperscript{13} Data of the WHO (2019) show that the proportion of female medical doctors in Europe accounts for 50%, in Africa around one third and in Southeast Asia 39%.

In Europe 84%, in Africa 65% and in Southeast Asia 70% of nurses are female. In Germany, about 78% of the workforce in the healthcare sector are women, in nursing women account for 80%, in human and dental medicine for 47% and in geriatric care for 84%.\textsuperscript{14}

Although women, especially nurses and midwives, have an important role in healthcare systems around the world, only 25% are in leadership positions. Only one third of health ministers worldwide and 28% of the deans of the globally most renowned public health and medical faculties are female.\textsuperscript{15} The proportion of women in European parliaments accounts for 31.7% (Germany: 31.4%) and in executive boards in Europe for 28.8% (Germany: 35.6%).\textsuperscript{16} Worldwide, the gender pay gap in the health sector is 28%\textsuperscript{17}, in Europe it is on average 16%; the gender pay gap in Germany (21%) is after Estonia the second highest in Europe, in comparison to Luxemburg (4.6%) and Romania (3%).\textsuperscript{18}

In Germany, women are underrepresented in the committees and decision making bodies of the healthcare system. In 10 out of 17 members of the Associations of Statutory Health Insurance Physicians, no women hold executive board positions. In the Federal Association of Psychotherapists 4 out of 5 members of the executive board are men, although 75% of psychological psychotherapists are female. 70% of the employees in health insurance are women, but their proportion in the executive boards accounts for 0-21% only.\textsuperscript{19}

In inpatient care, the proportion of female doctors in leadership positions accounts for 43.3% in general medicine, 24.4% in psychosomatic medicine, 24% in gynecology, around 23% in psychiatry and psychotherapy, and 18.4% in pediatrics. In internal medicine the proportion is a little lower (12%), and in surgery and urology very low (7.3%; 3.3%).\textsuperscript{20}

A study by the German Medical Women’s Association showed similar results for academic medicine in Germany. On average, the proportion of women in top leadership positions is

\begin{itemize}
  \item \textsuperscript{13} World Health Organization. Delivered by women, led by men: A gender and equity analysis of the global health and social workforce. Geneva, 2019 (Human Resources for Health Observer Series No.24)
  \item \textsuperscript{14} Statistisches Bundesamt. Gesundheitspersonalrechnung. 2018. www.gbe-bund.de (last assessed 13 March 2020).
  \item \textsuperscript{15} World Health Organization. Delivered by women, led by men: A gender and equity analysis of the global health and social workforce. Geneva, 2019 (Human Resources for Health Observer Series No.24)
  \item \textsuperscript{16} Europäisches Statistisches Bundesamt. \url{https://ec.europa.eu/eurostat/web/sdi/gender-equality} (last assessed 13 March 20)
  \item \textsuperscript{17} World Health Organization. Delivered by women, led by men: A gender and equity analysis of the global health and social workforce. Geneva, 2019 (Human Resources for Health Observer Series No.24)
  \item \textsuperscript{18} Europäisches Statistisches Bundesamt. \url{https://ec.europa.eu/eurostat/web/sdi/gender-equality} (last assessed 13 March 20)
  \item \textsuperscript{19}Korzelius, Heike. Selbstverwaltung im Gesundheitswesen. Frauen fordern Parität. Deutsches Ärzteblatt | PP | Heft 3 | March 2019 \url{https://www.aerzteblatt.de/nachrichten/101257/Frauen-im-Gesundheitswesen-fordern-Paritaet-in-Gremien-Selbstverwaltung}
  \item \textsuperscript{20} Bundesärztekammer. Ärztestatistik, Berlin 2018.
\end{itemize}
13%\textsuperscript{21}, whereas the percentage of women is lowest in urology with 3% and orthopedics and highest in pediatrics with 21% as well as 25% in mental health. In gynecology, the proportion of women in leadership position reaches 19%. The proportion of female senior physicians (middle management) is on average 31% with the highest proportion in gynecology (55%), and urology (15%) as well as surgery (16%) with the lowest proportions. In total, the number of female professors amounts to 428 (16%) (men: 2751).\textsuperscript{22}

In the context of the ongoing COVID-19 (Sars-CoV-2) pandemic, only few women are involved as experts, although they provide the majority of work in the healthcare sector. Only 5 women are part of the \textit{WHO Emergency Committee on nCoV2019} (in total 21 persons), which is less than a quarter. In the expert panel supporting the German federal government, the ratio of women and men is 1:6.\textsuperscript{23}

Even though international studies show that health systems are stronger when female health professionals are included in decision-making processes, in the development of national health plans and health policies,\textsuperscript{24,25} Women in leadership positions set other priorities and support topics like women’s health, education for girls and a general access to health systems especially for women.\textsuperscript{26,27} Furthermore, the quality of medical care is often better when provided by female compared to male doctors.

Women work in a more patient-centered manner and put greater emphasis on sex/gender and culturally sensitive care. Outcomes of care provided by female doctors show lower readmissions to hospitals as well as a lower mortality of patients.\textsuperscript{28,29} In general, female doctors take more time for consultation, conduct preventive measures and laboratory tests more often and provide more health counselling. They initiate surgeries less often, prescribe less medication and treat more patients with psychosocial problems.\textsuperscript{30,31}

Gender equality is therefore essential for the promotion and protection of public health worldwide.\textsuperscript{32} The academization of health professions can offer better career and income opportunities for women. The establishment of nursing and therapist associations offers

\textsuperscript{21} Deutscher Ärztinnenbund e.V. Medical Women on Top. Update. Berlin 2019.
\textsuperscript{22} Deutscher Ärztinnenbund e.V. Medical Women on Top. Berlin, 2016.
\textsuperscript{23} Women in Global Health – Germany (2020). Own analysis (T. Schneider, C. Hoffmann)
\textsuperscript{24} Downs J, Reif L, Hokororo A et al. (2014) Increasing women in leadership in global health. Acad Med 89(8)
\textsuperscript{25} Newman C (2014) Time to address gender discrimination and inequality in the health workforce. Human Resources for Health 12(25)
\textsuperscript{27} Beaman L, Duflo E, Pande R, Topalova P. Female leadership raises aspirations and educational attainment for girls: a policy experiment in India. Science (80-) 2012; 335(6068):582–6.
\textsuperscript{29} Ludwig S, Dettmer S, Wurl W, Seeland U, Maaz A, Harm Peters H. Evaluation of curricular relevance and actual integration of sex/gender and cultural competencies by final year medical students: effects in student diversity subgroups and by curriculum. GMS Journal for Medical Education. Angenommen, im Druck
women more opportunities to participate in health policy decision making and should therefore be supported.\textsuperscript{33}

In addition, further diversity aspects such as e.g. socioeconomic and migration background, ethnicity, age and disabilities should also be taken into consideration when implementing gender parity in leadership positions.\textsuperscript{34}

The achievement of the global goals on gender equity in all sectors would lead to an increase of US$ 28 trillion in global GDP, or US$ 12 trillion if every country would reach the gender equity goal of the country with the lowest gender gaps in their respective region.\textsuperscript{35}

**Recommendations**

- Parity in leadership and decision-making positions in the healthcare sector
- Ending gender and pension pay gaps
- Further academization of health professions and establishment of nursing and therapist associations

**Migration of healthcare professionals**

The global shortage of healthcare professionals is estimated to account for over 4.3 million doctors, midwives, and nurses. This shortage will continue to rise due to the increase of the burden of age-related diseases. Already today, more immigrated than local health professionals are working in big industrial countries such as Australia, Canada, America, and Sweden. Countries in Europe and the Middle East benefit from the emigration of mainly women from developing countries.\textsuperscript{36,37}

The increasing number of emigrating health professionals not only represents a lost investment in training for the countries of origin, but also amplifies their local shortage of skilled workers and thus the average workload of healthcare professionals.\textsuperscript{38} Women from developing and emerging countries most often choose emigration for economic reasons, leaving a gap in their home country, not only in primary care, but also in the care of family members and children.\textsuperscript{39} This “care drain” increasingly aggravates the double burden of those women who remain in the private sphere.\textsuperscript{40}

Migrant women often work in private households and informal employment without health or social insurance. Only an estimated 15% of migrant healthcare professionals work in formal employment. Migrant healthcare workers are facing a structural imbalance, since as "external" employees they are often exposed to an increased workload and to more shift work, work during the weekend or night.

Foreign education certificates are often not recognized, which often results in an employment in a lower position than in the home country. Different cultural and social customs, norms, values and expectations make the professional and private integration of the migrant skilled health workers difficult.

State-funded language programs in the home country and in host countries should therefore facilitate the social and professional integration of migrant healthcare professionals. In order to keep them permanently in the host country, they need to be supported and actively integrated into the society of their new home country. For urgently needed skilled workers, bureaucratic hurdles for family reunification should be lowered. In many cases, cooperation with the authorities in the home countries can facilitate the reunification of families. All migrant healthcare professionals should have the right to health and social insurance in the host country.

Counseling and assistance in bureaucratic matters can counteract discrimination and accelerate administrative processes. On the institutional level, counseling and distribution centers for migrant healthcare professionals that are tied to specific institutions can provide an overview of personnel-related structures and thus of inequalities and, if necessary, find solutions to prevent discrimination based on professional or duty rostering criteria by consulting the respective department. Personal discrimination and xenophobia can be counteracted by educating staff and providing institutionalized care services for migrant healthcare professionals. Medical training programs should be expanded in order to counteract a possible lack of medical expertise in the home country.

To meet the ever-growing demand for skilled personnel in the health care sector, Germany depends on the expertise of migrant healthcare professionals. Adequate healthcare can only be guaranteed if these professionals, most of them women, find stable conditions and are valued adequately. This means to overcome language as well as professional barriers, and to create socially secure working conditions.

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Recommendations

- Gathering data on challenges, needs, work and living conditions of migrant healthcare workers in Germany
- Institutionalized expansion of support structures of migrant health workers, establishment of a transnational social security system
- Prevention of ‘brain drain’

Digitalization in the healthcare sector: A longitudinal task and chance

Worldwide healthcare systems are facing similar challenges such as an increasing demand for healthcare services due to aging societies, a demand for high quality services, a shortage of healthcare professionals, as well as limited access to healthcare and increasing costs. Digitalization as the "key technology of the 21st century" is seen as one if not the solution for many of the challenges outlined above.

Digitalization will not replace the majority of the activities in the healthcare sector, but it will change and complement these. Since a large proportion of the work in social and healthcare systems is carried out by women, digitalization will have a significant impact on their work and should therefore be - to a large extent - shaped by women.

From the perspective of Women in Global Health Germany two questions arise in this context:

1. What can digitalization provide to adequately meet the aforementioned challenges in the healthcare sector?

Digitalization can provide better support, increase participation, knowledge and the possibilities for exchange related to healthcare among women and thus significantly improve their lives (flexibility in time, access, development opportunities), i.e. ultimately lead to better results and success.

Examples

**Healthcare systems**
- Digital and mobile tools for documentation
- Support systems for treatment processes and communication (e.g. digital checklists, robotics, AI diagnostic tools)
- Access to data bases & community

**Family welfare**
- High-quality information / advice online
- Telemonitoring / medicine
- e-prescriptions / appointments
- Health promoting programs for risk groups

**Personal care**
- Monitoring (e.g. menstrual cycle, pregnancy)
- Networking, social inclusion
- Offers for a healthy lifestyle / sports
- Digital health applications

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44 [https://www.bundesgesundheitsministerium.de/e-health-initiative.html#c2846](https://www.bundesgesundheitsministerium.de/e-health-initiative.html#c2846); Accessed on 31 March 2020.
In general, only a few of these developments are specific to women, but they could develop a particularly high potential if they were tailored towards the needs of women.

2. What needs to be done to ensure that a) women have good access to digital processes and products in the healthcare system, b) sex and gender differences are considered in the design of digital applications and c) sustainable support to women is provided?

Women present the minority in the “IT world”, often described as the “digital gender gap”.45 The aim of promoting girls in STEM subjects can be a measure to induce change in the technical field. Female advisors should be included in e.g. advisory boards, in order to involve women in the development of applications and in turn to increase the acceptance of such. Interestingly, women have advantages in a digitalized working environment46 due to their social and team skills, their ability to innovate and learn, and their competencies for interdisciplinary cooperation and understanding. Women needed to make use of these advantages and skills and deal with the upcoming changes due to digitalization. They should see them as an opportunity and get actively involved to shape them.

Women would accept digital developments and applications more, if those could lead to abolish time-consuming duplicate structures (e.g. additional paper documentation). However, for more women than men, the limited access to a stable and affordable internet connection and digital devices is seen as a real obstacle47 for gender equal participation.

For women it will be crucial with which aim digitalization in the healthcare systems is being pursued. If digital devices are developed to support, facilitate or improve processes and activities, promote networking, and improve preventive care and treatment, then it could lead to an increased attractiveness of health and social professions, not only for women.

Recommendations
  - Digital products with user-friendly interfaces that are easy to handle, optically attractive, and sex/gender sensitive
  - Software specifically designed for healthcare professionals that does not create additional work
  - Training concepts that can be integrated into daily work processes

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Sex/Gender and health

Results of national and international health surveys as well as sex and gender research in medicine / gender medicine show sex and gender differences in the prevention, pathogenesis, manifestation, diagnosis and therapy as well as in the incidence, prevalence and mortality of diseases. These differences can be attributed to the biological dimension (“sex”) as well as to the sociocultural dimension (“gender”), whereas biological sex includes e.g. genes and hormones and gender, as sociocultural dimension, health behavior and lifestyle. However, both are mutually dependent and influence each other. There are sex and gender differences in mental disorders, cardiovascular diseases, musculoskeletal diseases, cancer, life expectancy and the causes of death, but also in health behavior and prevention.

Women suffer more often from depression and are more often affected by musculoskeletal disorders than men: the prevalence of osteoarthritis, osteoporosis and rheumatoid arthritis is higher in women than in men. Data show that more drugs are prescribed to women, especially psychotropic drugs, that women have a higher participation rate in preventive programs and that they go to the doctor more often. There are also differences in health behavior: women generally eat healthier and are more attentive to their own health. Additionally, women are often underrepresented in clinical drug trials, thus there is less evidence on the efficacy and safety of drugs in women. For a better quality of medical care, it is therefore necessary to consider sex and gender differences in the prevention, disease development, diagnosis and therapy.

Recommendations

- New findings of sex and gender differences in medicine and the social sciences should be adequately taken into consideration in the prevention, diagnosis and therapy of diseases
- Support for studies focusing on evidence-based research and practice in the health professions, ensuring gender-sensitive study design, and gender-sensitive analysis of findings
- Integration of sex- and gender-specific content into the curricula of the health professions

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49 Oertelt-Prigione S, Regitz-Zagrosek V (Hrsg.) Sex and Gender Aspects in Clinical Medicine, London 2012.
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