

# Mind the 'inequality' gap: intersectionality-informed scoping review of inequalities and adverse experiences of health and care workers globally

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## ABSTRACT

**Context** Health and care workers' well-being is critical for comprehensive human resources for health (HRH) planning. However, system-wide factors such as wage disparities and career advancement barriers remain underexplored, while most existing planning frameworks focus on gender, ignoring other interactions shaping the HRH experiences.

**Objective** To systematically map literature on adverse HRH experiences, underlying inequalities and the resulting impact using an intersectional equity lens.

**Methods** A rigorous scoping protocol was developed which guided the search in four bibliographic databases (SCOPUS, Web of Science, PubMed and CINAHL Ultimate). Literature was screened by two reviewers independently, charted and thematically analysed.

**Results** From 21 184 records, 511 articles were included. 76% of the excluded articles were duplicates, while the rest were ineligible (non-English, grey literature, irrelevant publication type, etc). The review unpacked six types of adverse experiences (invisibilisation, disproportionate scrutiny, denial of opportunities, verbal abuse, physical abuse and sexual harassment) across 72 countries. 20 social locations, such as gender, race, ethnicity, cadre and their interactions shaped these experiences.

55% of these studies were based in high-income countries and only 2% in low-income countries. 45% of articles studied these experiences across only two or more social locations, with the most common combinations being race–sex. Adverse manifestations included wage disparities, career advancement barriers, poor mental health and high turnover. The existing literature lacked an equity gaze, missing the underlying systematic drivers and rarely exploring intersecting unique positionalities of health and care workers.

**Implications** Using an intersectionality lens, this scoping review identifies three key gaps: regional evidence imbalances, lack of an explicit intersectional equity focus and absence of translation of the scant intersectional evidence into HRH policy tools. These gaps restrict global HRH planning and hinder the development of inclusive, context-specific strategies—especially in low- and middle-income countries facing the most severe workforce challenges.

## WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Existing research on human resources for health (HRH) discrimination focuses on mostly single-axis inequalities like just gender or race, lacking any intersectional perspective.

## WHAT THIS STUDY ADDS

⇒ This review has systematically mapped evidence on adverse HRH experiences across 72 countries across 20 social locations and has revealed three critical gaps in existing literature.  
⇒ First, regional/geographical skew of evidence; second, the lack of an explicit intersectional equity focus; third and final, absence of translation of the scant intersectional evidence into practical HRH policy tools.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ This study underscores the need for an intersectional lens in designing HRH research and developing responsive equity-informed HRH policies to address systematic inequalities hindering universal health coverage.

## INTRODUCTION

Health and care workers, more often referred to as human resources for health (HRH), are persons engaged in 'actions whose primary intent is to enhance health', such as physicians, nurses, midwives and surgeons (see online supplemental file 4 for more detailed definition in the published protocol). HRH are key for a resilient health system, directly influencing health service delivery, accessibility and quality, thereby advancing universal health coverage (UHC).<sup>1–3</sup> Despite this central framing within the sustainable development goals, there remains a persistent critical gap in translating the global commitments into strategies and operationalising thoughtful

investment in HRH to achieve sustainable and inclusive global prosperity.<sup>4 5</sup> Most recently, the pandemic has clearly highlighted the need for an adequate number of relevantly trained, equitably distributed, appropriately deployed, properly equipped, institutionally supported and motivated HRH to be able to manage public health hazards, in addition to other resources and planning.<sup>6</sup> These needs emerged from the pandemic exposing deep-seated inequalities specifically in lower-middle-income country (LMIC) settings, where pre-existing shortages of HRH were exacerbated and compounded by severe scarcity of personal protective equipment, excessive workloads and systematic violence.<sup>7 8</sup> Post-COVID HRH satisfaction, well-being, protection, retention and safety have in fact emerged as critical considerations for policymaking and future planning for HRH. These concerns are increasingly realised not just by the policymakers but upcoming and aspiring health and care workers as well.<sup>9</sup> As a result, there is increasing emphasis on health-systems-led approach for HRH analysis, planning and investment.<sup>10</sup> This prioritisation highlights the need for a deeper examination of the systematic and structural factors and dimensions of the health labour market (HLM) and aligning the planning to the rapidly evolving epidemiology and demographic transition for a resilient and responsive HRH of the future.

Traditionally, HRH mismatch is framed as a shortage of numbers or skills mismatch. Sousa *et al*'s HLM framework advanced this understanding by visualising HLM as a dynamic pipeline, with a pool of health workers entering, moving and exiting it. The distinct stages within the HLM included training, workforce distribution, HRH migration, employment conditions and performance management. This conceptualisation formed the premise of policy levers around workforce production, flow management and regulation, as also discussed in the WHO global HRH strategy too.<sup>11 12</sup>

However, the WHO's 2023 handbook on healthcare workforce analysis has now described a third dimension to the HRH mismatches, that of discrimination and inequalities they experience,<sup>13</sup> now also centred in the health workers' compact.<sup>14</sup> This new framing acknowledges the existing societal and structural fractures and historical injustices, and their reflection within HLM. It exacts new guides and strategic frameworks focussing on improving the work experiences of health workers and capturing data for the same. This growing focus on disparities and inequalities within HRH calls for using an intersectional equity lens to illustrate challenges experienced differently by HRH based on their social locations.<sup>15 16</sup> The intersectionality framework has been used previously to analyse health workforce career progression but from a gendered perspective, blind to other intersections of privileges and disadvantages.<sup>17</sup> This is despite evidence documenting how specialty/department<sup>18 19</sup> cadre<sup>20</sup> and grade too,<sup>21</sup> all command different levels of prestige and resource, meeting the definitions of social locations as positions influencing access to resources,

power and opportunities.<sup>22</sup> This scoping review systematically maps the literature on inequalities experienced by HRH, and unpacks their drivers, their subsequent manifestations and the resulting impact on health system using an intersectional equity lens.

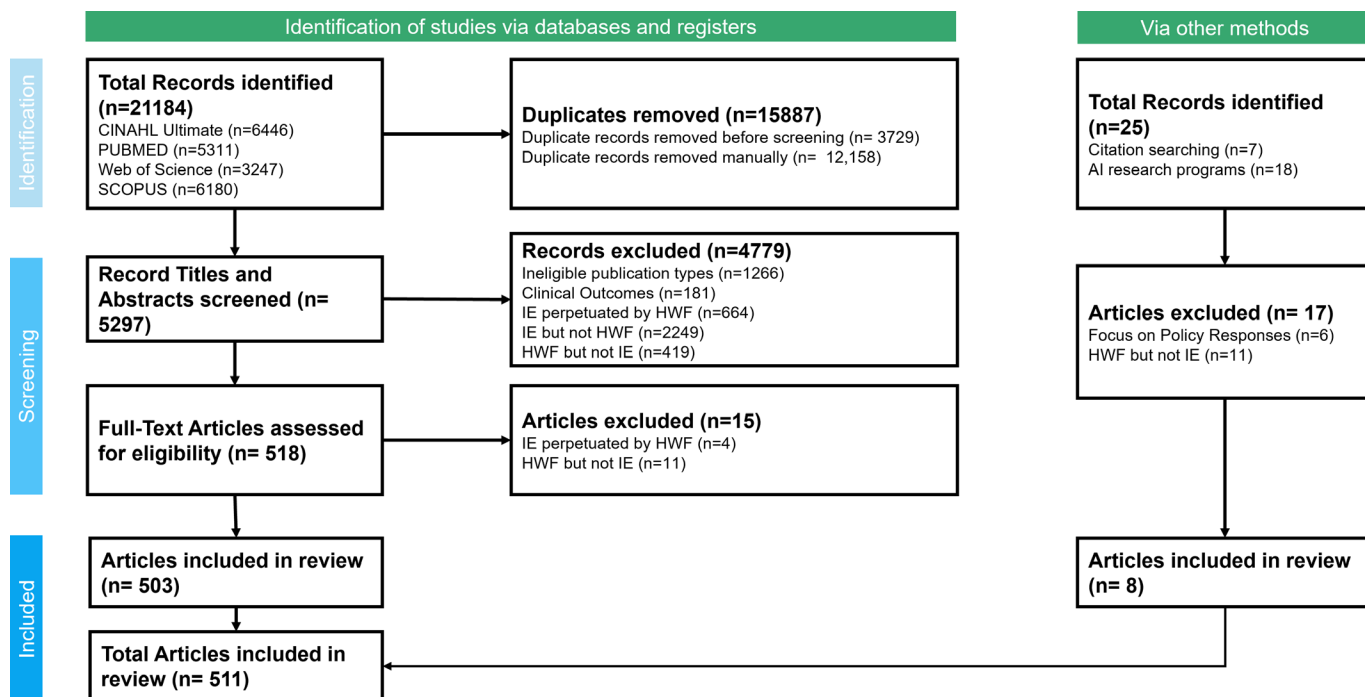
## METHODS

### Developing protocol

A comprehensive search of existing protocols was conducted and confirmed no prior protocols on this topic. Ergo, a priori protocol for this scoping review was developed and first preregistered in Open Science Framework (OSF) in March 2023 registration (URL: [osf.io/ktrvm](https://osf.io/ktrvm)) to ensure procedural and methodological rigour. The complete methodology for this scoping review was published in April 2024.<sup>23</sup> Following the establishment of the rationale, a thorough keyword search was initiated for the main search elements (healthcare workforce and inequalities). Relevant systematic reviews on HRH, and on inequalities and discrimination at the workplace were identified by HRH and human resource experts as seed reviews, whose search strings and search terms were extracted. Based on added terms, more reviews were identified and searched. This search and review of search strategies continued until exhaustive lists of search terms for HRH and inequalities were developed. HRH experts and university librarians were involved at the time of protocol design, to reflect on review questions, search strategy and inclusion exclusion criteria (online supplemental file 3). After experts and librarian reviews, the final strategy was approved, and the final search strings were run on 31 January 2024 in PubMed, CINAHL Ultimate, Web of Science and SCOPUS after being adapted to their respective search operators. Due to the nature of a review and non-involvement of any human participants, ethical clearance was not required and therefore not sought. However, acknowledging the potential biases inherent in scoping secondary data, efforts were made to systematically detail the methodology and source literature from multiple databases and artificial intelligence research network platforms. While critical appraisal was not done, given the requirements of a scoping review, a diverse range of sources and perspectives were considered to mitigate bias in reporting. However, a key limitation is the under-representation of inputs from LMIC due to use of regional languages and non-indexed publication or other formats like reports and briefs.

### Articles screening and selection

A total of 21 184 articles were imported from the four databases into Rayyan Software. Within the software, duplicates were removed and a consolidated excel file was produced for screening and charting. The software detected and removed 3729 duplicates, while 12 156 duplicates were removed manually. Two reviewers independently screened the titles and abstracts in the first round, followed by a second round of full text reading,



**Figure 1** PRISMA flow diagram. From: Page *et al.*<sup>100</sup> AI, artificial intelligence; HWF, Health Workforce; IE, Inequalities; PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

excluding another 4779 articles. Of the remaining 518 articles, 503 articles were finally included for the scoping review. The second and third authors were consulted to smooth out any discrepancies or disagreements and provide a final decision on inclusion or exclusion of the articles in question. From the final articles, a list of 10 highly relevant articles was extracted and entered into Research Rabbit App and Connected Papers App to identify the closest network of 25 relevant papers, which were also scoped and reviewed for inclusion, with eight being finally included for data charting, making it a total of 511 unique articles (figure 1 and online supplemental file 1).

### Data extraction and charting

The data charting form was developed to collect diverse data on multiple social factors and locations such as sex/gender, race/ethnicity, age, cadre (role), specialty/department, marital status, contract type, urban/rural location, employment sector (public/private) and citizenship status using an intersectional equity lens. Data charting form also includes a variety of experiences and outcomes that were later consolidated during analysis and mapped against the intersecting social locations. Instances of intersecting social locations were also noted, for example, unique experiences of female nurses (sex x cadre).

### Descriptive and thematic analysis

Basic descriptive analysis was undertaken to map the characteristics of sources of evidence and present graphically, followed by a thematic analysis<sup>24</sup> guided by the Braun and Clarke's method with some modification.<sup>25 26</sup> Modifications included using a deductive approach towards

themes development, extraction of themes on dual axes, that is, adverse experiences of inequalities versus manifestations; consolidation of themes guided by severity and intensity of workplace experiences instead of focussing on emerging recurring patterns, ignorance of violence typologies to focus on adverse experiences and inequalities to align with the study objectives, and integration of quantitative data from the review alongside thematic findings to accommodate the scoping review framework itself, the study objectives and the scope of intersectional inequalities in HRH. The analysis discusses (1) the range of inequalities experienced by the health and care workers, differing because of their unique positionalities (eg, socioeconomic, cultural constructs) within the HLM and (2) the manifestations of these experiences. The papers included in this review study systematic unfair treatment/inequality which ranges from tacit experiences to verbal and violent actions; can be structural, mental, emotional, physical or sexual and at multiple levels<sup>27</sup> and that multiple experiences may have been unpacked within a single study.

While undertaking the thematic analysis, the shortcomings of existing workplace inequalities, violence and discrimination typologies were also realised.<sup>28</sup> This review did not intend to discuss types of violence but types of inequalities and adverse experiences at the workplace. Not all instances of untoward experiences emerge from inequality or discrimination. Since, due to the inclusion criteria, all the charted adverse experiences constitute some kind of injustice or discrimination, these terms have not been used to define any of the themes. The primarily studied adverse and inequitable experiences



	Sex / Gender	Specialty or Department	Cadre	Race / Ethnicity	Age	Contract Type	Grade/ Seniority	Place of Qualification	Nationality/ Migrant Status	Urban / Rural	Marital Status/ Parenthood	Type of Sector (Pub/Priv)	Disability	Religion/ Faith	Socioeconomic Status	Sexual identity/ Orientation
Sex / Gender	36	36	36	41	32	16	13	15	10	8	14	4	3	0	2	3
Specialty/ Department	36	36	0	5	21	13	7	1	5	3	1	3	2	0	1	0
Cadre	36	0	36	18	17	9	14	9	2	9	5	0	2	4	4	0
Race / Ethnicity	41	5	18	36	15	4	5	17	18	7	5	2	4	3	2	2
Age	32	21	17	15	32	13	5	6	3	3	7	3	2	0	0	0
Contract Type	16	13	9	4	13	16	1	3	3	2	1	1	1	1	0	0
Grade/ Seniority	13	7	14	5	5	1	1	1	0	0	1	0	0	0	3	0
Place of Qualification	15	1	9	17	6	3	1	10	10	3	1	0	0	0	2	0
Nationality/ Migrant Status	10	5	2	18	3	3	0	10	0	0	1	1	1	1	1	0
Urban / Rural	8	3	9	7	3	2	0	3	0	0	2	0	0	0	0	2
Marital Status/ Parenthood	14	1	5	5	7	1	1	1	1	2	0	0	1	1	0	0
Type of Sector (Pub/Priv)	4	3	0	2	3	1	0	0	1	0	0	0	0	0	0	0
Disability	3	2	2	4	2	1	0	0	1	0	1	0	0	0	0	0
Religion/ Faith	0	0	4	3	0	1	0	0	1	0	1	0	0	0	0	0
Socioeconomic Status	2	1	4	2	0	0	3	2	1	0	0	0	0	0	0	0
Sexual Identity/ Orientation	3	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0

**Figure 3** Intersectional heat map of social locations determining adverse experiences of HRH. HRH, human resources for health; Priv, private; Pub, public.

care workers and 2% (n=12) on community/home-based health workers. Over 14% of the studies (n=73) studied multiple cadres and talked about healthcare providers in general.

Among the social locations/identities studied in the context of discrimination, 32.5% of the workplace discrimination studies have examined sex/gender (n=166), 31.9% have focused inequalities experienced by health workers within a specific specialty/department of workers (n=163), 23.7% on cadre (n=121), 15.7% race/ethnicity (n=80), 11.9% age (n=61), 7.4% (n=38) on type of contract that is, permanent or ad hoc, 7% on grade/seniority (n=36), 5.9% on place (country or institution) of qualification (n=30) and 5.3% on nationality or citizenship status (n=27). Small proportions (1–4%) have explored location of work that is, urban or rural (n=20), marital status (n=18), employment sector, that is, public or private (n=10), disability (n=9), religion/faith (n=8) and sexual identity/orientation (n=3). Applying the intersectionality lens enabled unpacking of 20 such locations across the 511 articles, with 54.99% of the studies (n=281) focussing on only one social location/base, 38.35% (n=196) studying two to three social locations, while the remaining 7% (n=34) covered four or more locations (figure 4). The most common combination of social locations studied includes race–sex (n=41), followed by specialty–sex (n=36), cadre–sex (n=36) and age–sex (n=32) (figure 3). Across country income groups, 41% of the 279 studies in HIC focus on sex (n=115), followed by 26% focussing on specialty (n=73). However, in the studies in UMIC, LMIC and LIC settings, more than 40% of the studies focus on specialty or department, followed by sex and cadre. Most of the articles studying sex and ethnicity are based in North America, while the

majority of cadre-focusing studies are from Asia. Results of individual sources of the final 511 articles have been provided in online supplemental file 1.

### Emerging themes

Analysis of adverse experiences of health and care workers revealed six recurring themes. Overall, 56% on verbal abuse (n=284), 49% on physical abuse (n=248), 42% of the articles explore invisibilisation of health workers (n=217), 23% on denial of opportunities (n=118), 19% focus on disproportionate scrutinisation (n=98) and 14% on sexual harassment (n=71) (figure 4). Different social positions create multilayered vulnerabilities and result in variation in the intensity of these experiences at any single intersection. This has been documented in Filut *et al's* systematic review, which highlights disadvantageous positions of health workers at the intersection of gender, ethnicity and race—a ‘double minority’ experience,<sup>29</sup> and in some cases, even a ‘triple bind’, adding first-generation born status to it.<sup>30</sup>

When mapping against regions, most of the studies on verbal abuse (n=104), physical abuse (n=62) and sexual harassment (n=23) have been done in Asia, while studies on disproportionate scrutinisation (n=44) and denial of opportunities (n=60) are clustering in North America. Across all income groups, the most studied adverse experience is verbal abuse (89% in LIC, 72% in UMIC, 67% in LMIC and 46% in HIC). Within the 279 studies in the HIC group, there is a balanced spread across the six themes, unlike UMIC or LMIC, which are mostly focusing on three themes (physical abuse, verbal abuse and overlooking/invisibilisation). It is also worthwhile to note that across all studies in HIC settings, verbal abuse has been studied the most (n=129); however, in UMIC

Experience Themes >		Overlooked/ Invisibilized n=217	Disproportionate Scrutiny n=98	Denial of opportunities n=118	Verbal Abuse n=284	Physical Violence n=248	Sexual harassment n=71
Income Groups	HIC n=279	30%	27%	35%	46%	37%	12%
	UMIC n=99	62%	8%	5%	72%	71%	15%
	LMIC n=78	60%	8%	8%	67%	64%	13%
	LIC n=9	89%	33%	11%	89%	78%	44%
	Multiple n=46	35%	11%	20%	52%	39%	20%
Based/ Social Locations	Sex / Gender	20%	64%	72%	27%	19%	34%
	Specialty / Department	47%	16%	8%	36%	45%	27%
	Cadre	23%	23%	25%	22%	23%	25%
	Race / Ethnicity	6%	22%	31%	15%	5%	13%
	Age	9%	17%	12%	13%	10%	13%
	Contract Type	10%	4%	3%	8%	10%	10%
	Grade/ Seniority	6%	9%	8%	8%	5%	10%
	Place of Qualification	2%	10%	12%	4%	2%	3%
	Nationality/ Migrant Status	3%	8%	11%	5%	2%	3%
	Urban / Rural	3%	1%	4%	4%	4%	0%
	Marital Status/ Parenthood	1%	8%	8%	4%	2%	7%
	Type of Sector (Pub/Priv)	2%	0%	2%	2%	2%	4%
	Disability	2%	2%	3%	2%	2%	4%
	Religion/ Faith	1%	1%	3%	1%	1%	3%
	Socioeconomic Status	1%	3%	2%	1%	1%	0%
Sexual Identity/ Orientation	0%	2%	1%	1%	0%	0%	

**Figure 4** Gradient colour map of experiences across income groups and social locations. HIC, high-income country; LIC, lower income country; LMIC, lower-middle-income country; Priv, private; Pub, public; UMIC, upper-middle-income country.

and LMIC settings, overlooking and invisibilisation, as well as physical abuse, has been studied as much as verbal abuse.

**Theme 1: overlooked/invisibilised**

This theme covers experiences where the system has been blind to health workers’ plight, completing the invisibilisation of them. Overall, 42% (n=217) studies have captured HRH’s experiences of invisibilisation or being overlooked by the system, that is, the organisational culture or the system being blind to HRH needs, their challenges or inequalities confronting them. Nearly half of these studies (47%, n=101) examine frontline roles as basis of inequality, 23% of these studies (n=45) are examining this phenomenon along the lines of cadre while 20% (n=43) are exploring the axis of gender. Most of these studies (67%, n=146) are based in UMIC and HIC countries. Within this theme, 17 studies have covered experiences during the pandemic, documenting general ignorance of the need for appropriate protective gear and equipment for women, ethnic minorities or professionals with low economic standing; absence of protection at the workplace for frontline workers or less likelihood of receiving necessary tests, etc.<sup>8 31 32</sup> For instance, Shelton *et al* documented how the personal protective equipment (PPE) prototypes released at the outset of the pandemic were designed for Caucasian male face and body type, completely ignoring non-white and female body types,

or the diversity within health workforce.<sup>8</sup> Invisibilisation has particularly been noted in cases of patient-initiated violence where there has been no protective policies or systems for frontline workers (47%, n=101 studies). This invisibilisation has been more clearly documented in studies on cadres other than doctors (n=202).

**Theme 2: disproportionate scrutiny**

This includes experiences of being closely or critically examined or observed, unfairly evaluated, made to work extra explicitly or tacitly, or held against harder benchmarks and unequal expectations. Themes of heightened visibility, scrutiny and benchmarking against stricter standards were explored in 19% of the studies (n=98). In 64% of these studies (n=63), health workers perceive that they are scrutinised extraordinarily because of their sex, while in 22% of the studies (n=22), they perceive the cause to be their race/ethnicity, with 13 studies exploring intersectional experiences of race and sex,<sup>33</sup> as also recognised by the health workers themselves, ‘As a Black male nurse from Africa, I have to be careful. I have to be doubly vigilant with what I say, how I say it and what I do’, Iheduru-Anderson 2020. Another intersection was that of cadre and minority religion, documenting higher turnover of Muslim physicians experiencing religious discriminatory experiences, including being passed over for career advancement opportunities.<sup>34</sup> Research on doctors is more likely to explore disproportionate

scrutiny (n=47), followed by nurses (n=34). Studies also explore how health workers who are visibly different are singled out for additional workload, considered for lower positions, subjected to heightened checks, higher scrutiny and even harsher punitive measures.<sup>35–41</sup> Gender discrimination specifically segues into reproductive expectations from women too, for example, being pressured to delay childbearing<sup>42</sup> and ‘been punished’ for their maternity leaves by being subjugated to higher performance/unreasonable expectations, stereotyped as ‘less professional’.<sup>41 43–49</sup>

### Theme 3: denial of opportunities

This theme includes active actions against HRH during recruitment or career progression, general task distribution, denied networking or mentorship, promotion, isolation, avoidance, separation or not being accepted, etc. These experiences may be due to biases, being stereotyped against, being undermined, etc. This would also include exclusion from decision-making. Experiences of health workers being excluded, segregated and denied opportunities (career growth, promotion, other career advancement avenues like training, etc, have been unpacked in 23% of the studies (n=118).<sup>34 40 50</sup> Gender is the most studied base, with 7 out of 10 studies in this theme exploring denial experienced by female healthcare workers (n=85), followed by race/ethnicity (31%, n=36), and 23 studies examining the interaction of race/ethnicity with gender. 103 of these 114 studies are set in HIC settings. Overall, more than half of the papers documenting denial of opportunities have explored this experience in doctors (n=60), while one-third have studied these barriers in nurses (n=37).

Specifically, gender stereotyping of roles set off a cycle of limited opportunities for women, starting with little expectations of intellectual potential or leadership traits, highlighting the humanity and compassion angle of their caregiver role while ignoring the scientific, skill-based aspect of the profession; thereby increasing benevolent sexism, harming their potential to engage in scientific endeavours or rightfully receive due credit.<sup>37 51</sup> As a result, most early-career women physicians shift to fewer hours, less demanding/less paying specialties and flexi-timings, deliberately choosing to not specialise or choosing specialisations allowing for better work-life balance with limited ‘unsubsidized overtime work’, the ‘motherhood penalty’ leading to wage gap, leadership gap, progression barriers, etc.<sup>42 52 53</sup>

### Theme 4: verbal abuse

This theme covers verbal abuse, scolding, insulting, shaming and reprimanding, humiliation, belittling, bullying, threatening, etc. Over half of the studies (n=284, 56%) have explored forms of verbal abuse, including bullying, intimidating or threatening verbally, insulting, humiliating or belittling, which includes most instances of lateral/horizontal violence (n=82) at the workplace. Among these, 36% (n=101) document experiences of

frontline workers/specific specialties while 76 studies have unpacked gendered experiences vis-à-vis verbal abuse. Notably, 6 out of 10 studies documenting verbal abuse have focused on nurses’ experiences (n=168). A subset of studies (10%, n=28) explored these experiences of health workers/frontline workers during COVID-19,<sup>8 31 39 54–56</sup> and how most health workers considered bullying and/or harassment as a mandatory ‘normal’ workplace evil that they had to live with. Peers and supervisors’ tendency to be prejudiced, bully, discriminate and abuse power against subordinates has been noted in 20% of the studies (n=58), mostly based on race and gender.<sup>30 42 57–60</sup> Additionally, 17% (n=47) studies have explored verbal abuse along the lines of race and ethnicity, documenting reactions like ‘they should learn English’ or ‘go back to where they came from’.<sup>30 56 61–63</sup> Even within people of colour, race intersecting with female sex and a non-English primary language is more likely to result in refusal of care and belittling, verbal and sexual abuse.<sup>30 50 64–67</sup> Bakken *et al* have also described similar intersectional experiences of pharmacists, with black and Asian males receiving most of the demeaning comments and insults about their race and ethnicity.<sup>33</sup> Articles have documented verbal violence ranging from 64% at workplace, with higher incidence in larger hospital settings,<sup>68</sup> to as high as 87.9% during COVID.<sup>69</sup>

### Theme 5: physical violence

This involved physical abuse of any kind, including instances of mobbing. Nearly half of the studies (49%, n=248) have reported physical violence and assault experiences of HRH. Out of these, 23% (n=56) studies explore client-on-provider violence (violence at the hands of distraught public, patients and attendants), with 19 studies covering experiences during COVID, such as instances when healthcare workers of Asian descent were labelled as China Influenza, Kung Influenza, COVID-19 carriers and faced discrimination, bullying and physical violence at the hands of the public, patients and in some cases even peers, while the institutional policies remained silent vis-à-vis their protection.<sup>39 56</sup> A significant number of studies (34%, n=84) have reviewed health workers’ experiences specifically within the departmental settings of psychiatry and emergency. Another 23% (n=58) studies are examining experiences of physical violence specific to a cadre, and 19% (n=46) focus on gender. In 22% of cases (n=56), other coexisting situations in papers studying physical abuse included busy central facilities, high patient load and long waiting times resulting in patient aggression.<sup>70 71</sup> Additionally, one-fifth of these studies (20%, n=49) are based in LMIC and LIC settings. Overall, physical violence has been studied more in nurses, compared with doctors or other cadres (60%, n=148).

### Theme 6: sexual harassment

This theme includes sexual harassment, abuse and assault. A total of 14% studies (n=71) have delved into

sexual harassment, with nearly half of them (49%, n=35) based in UMIC/HIC countries. In their studies, Castner, Newman *et al* and Fleming and Fisher have suggested a continuum of gender-based violence stemming from workplace violence as an extension, making gender bias at the workplace a consequence of system-wide gender discrimination<sup>44</sup> and the lack of clarity in defining what constitutes sexual harassment<sup>37</sup> also resulting in the unlikelihood of reporting by the victims, on top of the fear of possible career consequences.<sup>57</sup> Among the studies on sexual harassment, 25% have focused on the lines of cadre (n=18), with 46% of the studies on sexual harassment studying nurses (n=33), while 32% studying doctors (n=23). This is more rampant in male-dominated departments like general surgery.<sup>57</sup>

**Manifestations**

The experience themes discussed above express differently based on environmental, social and structural factors and their intersection with social identities of health workers. For instance, race and ethnicity are more prominent determinants of discriminatory experiences in the northern hemisphere than Asia or Africa. Another example is how internationally educated nurses experience employment discrimination at multiple levels, including lack of opportunities, physical and verbal violence, aggression, racism, unfair work distribution,<sup>72</sup> but this is specific to nurses ‘internationally’ educated in

LMIC or LICs and working in HIC and not vice versa. The included studies reveal six broad manifestations, that is, how health workers across different social locations have coped with these adverse experiences and what has been the consequence of these experiences, as summarised in the evidence heat map below. While the studies based in North America have captured almost all six manifestations, in Asia and Europe, most studies have explored poor mental health and impact on workplace retention (figure 5).

Overall, three-fourths of the studies documenting wage disparity and barriers to career advancement are studying gender. Among the 195 studies on poor mental health and 58 studies on compromised performance, approximately one-third of studies use the gender lens. Nearly half (47%) of the 182 studies on market exit explore inequalities related to specialty/department. Additionally, 37% of the studies exploring distrust in system focus on sex, compared with 33% of the studies on compromised performance.

**Wage disparities**

Wage disparities were examined in 9% (n=44) of the, primarily focussing on gender-based gaps (n=33), followed by race (n=9), cadre (n=17), age (n=7), educational background (n=5), etc.<sup>49 73–75</sup> Studies have also documented sex differences as having a stronger impact on pay disparities than ethnic/race differences,<sup>76</sup> such

Manifestations >		Wage Disparity n=44	Barriers to Career Advancement n=72	Poor Mental Health n=195	Loss of Trust in System n=49	Compromised Performance n=58	Effect on turnover and intent to quit n=182
Country Income Groups	HIC n=279	11%	23%	35%	11%	8%	42%
	UMIC n=99	3%	2%	48%	7%	14%	27%
	LMIC n=78	8%	1%	37%	8%	18%	29%
	LIC n=9	0%	11%	44%	11%	33%	22%
	Multiple n=46	11%	9%	33%	9%	11%	28%
Based/ Social Locations	Sex / Gender	75%	76%	27%	37%	17%	47%
	Specialty / Department	7%	10%	35%	24%	33%	20%
	Cadre	39%	22%	24%	14%	28%	24%
	Race / Ethnicity	20%	26%	14%	29%	5%	31%
	Age	16%	13%	10%	8%	12%	12%
	Contract Type	9%	0%	8%	4%	2%	5%
	Grade/ Seniority	5%	11%	7%	6%	10%	9%
	Place of Qualification	11%	11%	3%	4%	3%	9%
	Nationality/ Migrant Status	0%	11%	5%	12%	5%	11%
	Urban / Rural	7%	1%	4%	6%	5%	5%
	Marital Status/ Parenthood	11%	11%	3%	8%	5%	7%
	Type of Sector (Pub/Priv)	5%	0%	1%	0%	0%	2%
	Disability	2%	3%	1%	6%	2%	2%
	Religion/ Faith	0%	1%	1%	4%	2%	2%
	Socioeconomic Status	0%	3%	1%	0%	0%	2%
Sexual Identity/ Orientation	0%	1%	1%	2%	2%	1%	

**Figure 5** Gradient colour map of manifestations across income groups and social locations. HIC, high-income country; LIC, lower income country; LMIC, lower-middle-income country; Priv, private; Pub, public; UMIC, upper-middle-income country.

as higher hourly wages and annual incomes for males and more reimbursements.<sup>77 78</sup> This has been attributed to males' selection of 'high-paying' specialties, women's disproportionate share of family labour, differences by practice settings and rurality<sup>79</sup> and this gap being a common outcome of gender inequality.<sup>80 81</sup> A longitudinal study over two decades maintains consistent wage disparity between male and female physical assistants—despite the fact that the gender wage gap is lowest in this cadre, still a gender wage gap of 25% exists.<sup>81</sup> The wage gap also influences promotion, networking and conference opportunities, and disparities in publications.<sup>82</sup> Studies on wage disparities comprise 11% (n=30) of the studies set in HIC, but none from the LIC group.

### Barriers in career progression

Barriers to career advancement and leadership roles as outcomes of unequal experiences of health workers have been investigated in 14% of the studies (n=72); documenting discrimination against health workers, and being passed over for growth opportunities, impacting their professional development and career advancement.<sup>36 48 83 84</sup> Overall, 76% of these studies have explored gender (n=55), followed by 26% of studies exploring race/ethnicity (n=19). Within the 279 studies set in the HIC group, 23% are studying barriers to career progression, compared with only 2% and 1% of the studies set in the UMIC and LMIC groups.

### Poor mental health

The impact of inequalities on health workers' mental and emotional health has been investigated in 38% of the included articles (n=195). Of these studies, 35% (n=68) focus on the frontline health workers, 27% are exploring gender (n=52), while 14% are examining race and ethnicity (n=27). Just one or two studies have explored the bases of religion, disability, sexual identity or institutional factors and their relationship with inequalities. Over 66% (n=129) of these articles were investigating different forms of verbal abuse, often manifesting as strong cases of psychological stress, sleep disorders and burnout.<sup>85</sup> However, despite this psychological health crisis, minoritised health workers (eg, Black, Asian and Minority Ethnic, BAME) are less likely to report underlying stress or burnout, attributed to historic and current social injustices they have experienced.<sup>31</sup> In response to such experiences, health workers undergo psychological and professional burnout. These situations worsened during COVID-19, with over 24 studies done specifically in the context of the pandemic and reporting mental health challenges confronting health workers who faced discrimination or were treated unequally. In studies across all income groups (except HIC), the highest proportion focuses on poor mental health.

### Loss of trust in the system

Long-lasting impact of systemic injustices as loss of trust in the system has been highlighted in 10% of the studies

(n=49), which has resulted in reduced efforts and commitment to work on the part of the health workers.<sup>86</sup> Out of these studies, 18 have examined using the gender lens, and 14 along the lines of race/ethnicity. This distrust is not only with regards to specific benefits for health workers (such as the disinterest of black healthcare workers in enrolling for COVID-19 vaccine trials, with the historical evidence around racism and discrimination in medical institutions<sup>31</sup>) but also about the system taking care of the health workers in case of client-on-provider violence. This is reflected in studies where, in cases of discrimination experienced at the hands of patients, health workers often do not report due to a variety of reasons, including the fear of not being believed,<sup>65 87 88</sup> especially since they may be an allied health worker or a paramedic,<sup>89</sup> or that the system may still not protect them.<sup>90 91</sup>

### Compromised performance and impact on patient care

The bearing of discrimination on health workers as demotivation and poor performance at the workplace has been documented in 11% (n=58) studies, ultimately impacting quality of care for patients. Of these studies, 70% (n=41) were investigating verbal violence, with 33% (n=19) studying frontline roles and 28% (n=16) studying cadre. In 65% of the studies (n=35), the population of interest is nurses. Overall, 44.8% (n=26) of these articles are set in Asia.

### Effect on turnover and intent to quit

The impact of discriminatory experiences on health workers intent to continue working has been unpacked in 36% (n=182) studies. Of these studies, 47% (n=85) were focussing on gender, while 31% were studying ethnicity and race (n=56). On experiencing racial or ethnic discrimination, women physicians were more likely than their male counterparts to quit their jobs, and older physicians were more likely than younger ones. There is also a documented lower average annual employment rate for women than men, a higher annual growth in qualitative underemployment, unemployment and labour wastage for women.<sup>92</sup> As a result, most early-career women physicians make career sacrifices like choosing less-paying or flexible specialties allowing for better work-life balance but retire earlier, quit their careers while also suffering from psychological impacts.<sup>42 52 53</sup> Studies also show that even if adjusted for race/ethnicity, gender and age, experiencing racism and ethnic discrimination has been found to be significantly associated with high job turnover and job dissatisfaction.<sup>53 58 93 94</sup> Systemic pervasiveness and situations of power exploitation in healthcare workplace settings impact health workers' ability to voice out any injustice;<sup>57</sup> as a result of which juniors often suffer from mental anguish and even quit their jobs.<sup>53</sup>

## DISCUSSION

Evidence from 72 countries made it to the final list of 511 articles, depicting a representative spread of the literature and understanding of situations prevalent across the

regions. The review incorporated a mix of diverse article types, enriching the final themes and manifestations. While quantitative papers clearly highlighted different incidences and prevalences of inequalities such as wage disparity and violence, qualitative papers have used very diverse methods including ethnographic studies, content analysis, interviews and case studies to illustrate deeper and nuanced reflections on how these injustices are experienced and normalised. They unpacked phenomena such as parenthood penalties, career setbacks tied to race or accent, or the need to fit in or look eligible, for example, the symbolism of community health workers needing to ‘carry weighing scales’ in home visits,<sup>95</sup> or the expectation from non-white supervisors to be ‘nicer’ to white trainees and practice ‘actual listening’ out of fear of the system.<sup>67</sup>

The review illustrates how the six themes—invisibilisation, disproportionate scrutiny, denial of opportunity, verbal violence, physical violence and sexual harassment—are not isolated experiences, but rooted in broader systemic drivers such as gender norms, occupational hierarchies, racialised power dynamics and institutional cultures undervaluing certain cadres. The theme of invisibilisation specifically highlights how policies and systems are ignorant of the needs of cadres other than doctors, particularly in middle-income country and LIC settings, due to the organisational culture and lower positioning of these cadres. Disproportionate scrutiny brings forward the additional penalties experienced by female and minority health workers, who are benchmarked or evaluated against stricter standards due to their social identities and their positioning in specific settings. Denial of opportunities underscores the intersection of sex and cadre, with female doctors suffering from pervasive gender-based discrimination at every level, exacerbated by societal expectations. Verbal violence theme, although very broadly defined by this review, highlights how nursing cadre is disproportionately experiencing this compared with other cadres, and how events like COVID-19 worsen the situation in larger clinical settings. Similarly, physical violence unpacks structural and systematic inequalities that disproportionately affect specific cadres and clinical settings. Lastly, the sexual harassment theme reaffirms the continuum of system-wide gender discrimination.

Based on these insights, the several major gaps identified in the literature all signpost to three critical broad lacunae in HRH research:

A. Spatial skew of evidence: Overall, 4 out of 10 articles are from just five HIC countries, revealing a stark under-representation of LICs and LMICs, despite the fact that these regions have some of the most crisis-struck countries vis-à-vis their health systems and HRH. This may be due to the use of regional languages other than English, limited access to indexed journals due to funding constraints and non-indexing of local/regional journals. The prevalent publication practices and use of alternate platforms like donor and government reports, meeting presen-

tations and policy briefs can be another reason.<sup>96 97</sup>

Over-representation of studies from HICs or under-representation of LICs skews global HRH policy considerations and limits applicability of evidence when planning to counter HRH crises.

B. Narrow focus on single axis of inequality: Most of the literature studies just one axis of inequality/factor of discrimination, such as gender, race or seniority/grade, or investigates a particular experience like bullying or lateral violence, often focussing on only doctors or nurses. This singular exploration ignores examining the ways in which different social, cultural and economic locations intersect and compound to shape HRH experiences. The existing literature has also failed to take a systems approach to capture the full range of inequalities (eg, experiences of discrimination, injustices) across cadres. From the review, the most studied combination of HRH’s social locations is sex-ethnicity (mostly from HICs). This can support the development of gender-just workplace/healthcare systems. However, this finding could also be reflective of the fact that 37 of these 41 studies come from HICs, and that sex and ethnicity are ‘socially visible’ categories, as compared with religion, marital status, socio-economic status which may or may not be visible.<sup>36 98</sup>

There are very few studies exploring challenges of groups with disability, different sexual orientation and other less visible bases. This could be attributed to top-driven research designs, resource challenges and data collection limitations. The dearth of studies exploring other intersections, especially those relevant to LMICs (eg, caste, indigeneity) hinders development of inclusive and equitable solutions in some of the most HRH-crisis laden countries.

Social locations like gender, race, cadre and other social locations do not operate independently but intersect to shape deeply unequal professional realities. All these findings underscore the need to apply an intersectionality lens when designing research and collecting evidence around health and care workers and designing workforce policies, especially if a health systems impact is desired.<sup>16</sup> Yet only six studies explicitly applied an intersectionality framework, contributing to research gaps by not capturing compounded discriminatory experiences of health and care workers at intersecting social locations, for example, female allied health workers of colour. This is also partly due to methodological challenges and knowledge gaps in integrating intersectionality in research design, analysis and policy formulation.

C. The policy-practice chiasm: While the systematic drivers of discrimination within the HLM framework and the global HRH strategy acknowledge the systemic and structural drivers,<sup>99</sup> they have not attempted to address these or provide an actionable framework to understand their intersection within research and policy design. The commitment to achieving UHC and the Compact’s framing of challenges experienced

by HRH<sup>14</sup> exacts the need to produce practical guidance on applying intersectional equity lens for better-designed investment in HRH.<sup>11</sup>

The themes emerging from this review exact a paradigm shift in the process of designing responsive research, and inclusive and inequality-informed policies that go beyond workforce production or distribution, to focus equitably on dignity, protection and growth of health workers at different social locations. Methodologically, future research aiming to understand the complex discriminatory experiences of healthcare workers must prioritise integrating intersectionality in research methodology, such as collection of disaggregated data by sex, ethnicity, cadre; analysis methods going beyond descriptive reporting. From a policy perspective, this calls for integration of equity audits within workforce policy cycles, development of sharper accountability mechanisms to address workplace violence, inclusion of underrepresented cadres and identities in ministerial governance and planning bodies, etc. Incorporating an intersectional equity lens in research and policy design also entails building necessary institutional capacities.

### Study strengths and limitations

To authors' knowledge and based on the literature search undertaken for this, this is the first scoping review of its kind to explore the range and impact of multiple intersecting inequalities experienced by health and care workers; is the latest and most comprehensive endeavour documenting the extensive body of literature detailing these inequalities. Another strength of this study is capturing a wide range of health worker cadres across different regions, by bases of discrimination as well as health worker outcomes. Since it is a scoping review, the quality of evidence or risk of bias of the included studies has not been undertaken. Additionally, due to language limitations and string design, articles of interest published in other languages or in local non-indexed journals would be missing in this review, which explains lower turnout from the LIC group.

### CONCLUSION

This scoping review has evidenced a glaring blind spot in both HRH research and HRH policy framing—the failure to recognise that the adverse and disparate experiences of health and care workers are shaped by systemic inequalities and discrimination across multiple axes and social locations. While gender and race dominate the current discourse, a broader range of social locations remains unaddressed, especially in LIC contexts, which are also shaping health workers' day-to-day lives and experiences. All these experiences are in turn influenced by structural factors and long-standing historical, geopolitical and social injustices. To advance our current understanding of these inequalities experienced by health and care workers, two considerations emerge, which are not just ethically imperative for developing equitable workforce

policies, but critical to ensure a resilient and inclusive health system:

1. Research must adopt a systemic analysis approach with robust equity-focused design integrating intersectional equity lens as the main worldview at every stage to unpack the drivers and outcomes of such systematic inequalities.
2. Policies must move beyond quantitative metrics around health workforce inflows and outflows, maldistribution and inefficiencies, to explicitly address inequalities within the system.

Without these actions, systematic inequalities will continue fracturing the HRH, directly undermining progress towards UHC.

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