Supplementary file 2. Data extraction form.

General information		Study characteristics								Participant characteristics			Results		
Title Authors Year of publication	**Country Income group**	**Aim(s)/objective(s) of the study**	**Study design**	**Outcome of interest**	**Inclusion criteria**	**Exclusion criteria**	**Type of interview**	**Questionnaire details**	**Recruitment/sampling**	**Sample size, n Professional group (s)**	**Response rate**	**Gender Age range/mean**	**Clinical experience /mean (years)**	**Key findings**	**Conclusion**
Women family physicians' personal experiences in the Republic of Moldova Wallace and Brinister 2010	Moldova lower-middle income	to explore the personal experiences of female physicians in Chisinau, Moldova	qualitative (in-depth interviews)	job satisfaction	full-time practising female family physicians	not stated	in-depth, face to face, semi-structured	8 item: (1) Why did you choose to be a family doctor? (2) Can you please tell me what you do on a "typical" day? (3) How many patients do you see on a "typical" day? (4) In your opinion, what are the top 3 health problems facing Moldovans today? (5) Are your patients well informed (have a good understanding) about health issues? (6) Where do most of your patients "get" their health information? (7) What do you like the most about being a family doctor? And (8) What do you like the least about being a family doctor?	directors were contacted via email/telephone/ purposive	20 family physicians (11 Eleven of them did not originally complete residency training to become a family physician: paediatricians (n 10) and therapeutic physician (1))	not stated	females 100% 42.4±7.2	12.2±7.9	4 key themes: 1) family medicine as a speciality offered much diversity and personal satisfaction: (+) diversity of cases; possibility to treat entire families and all ages; personal satisfaction from positive outcomes. (-) Lower status in comparison with specialists; high professional demands and as a result lack of personal time. 2) appointment time restrains and paperwork - challenges to provide care: insufficient amount of time (15 min) per patient - needs of patients might be different; 1 assistant per family physician; 'false' home visits; travel difficulties during the home visits (street dogs etc.); unnecessary, but mandated paperwork; electronic medical records system made paperwork less time consuming. 3) problems faced by patients are complex and go beyond the leading causes: not only physical problems matter (difficult life situations, lack of money, patients unhappy by their lives, many patients exhibited symptoms of depression) 4) patients have limited knowledge about health, but improved access to it: patients are not well informed, do not get thought, do not want to listen, difficulties in working with chronic patients - do not feel ill, have to convince patients to come, internet is covering that knowledge gap, and younger generation is more responsible.	Working as a family physician was personally rewarding, but system related challenges influenced negatively on job satisfaction and quality of care.

Motivation and Retention of Physicians in Primary Healthcare Facilities: A Qualitative Study From Abbottabad, Pakistan Shah et al 2016	Pakistan lower middle income	To identify factors affecting the retention and motivation of doctors working in PHC (primary healthcare) facilities of Pakistan.	qualitative (interviews)	job motivation	physicians employed by BHUs (basic healthcare units) and district and provincial government health managers	not stated	semi-structured and in-depth	not stated	not stated	22 16 physicians (medical doctors=GPs) + 6 managers	not stated	13.6% - females 38	9.83	1)individual/personal factors: gender - harder to females due to cultural and security reasons; marital status - difficult to relocate to BHUs (they are in rural areas) due to disruption for their personal lives, insufficient educational opportunities for their children; nature of the job - job in BHUs is flexible (no emergency calls), secure for the rest of their careers, good option for newly graduates; absenteeism - younger physicians are more motivated to stay in BHUs; residence - provided houses are uninhabitable; difficult to commute; 2) workplace level factors: participants were satisfied with the physical environment; dissatisfied with colleagues - unsupportive, auxiliary workers were working without licence; recognition by supervisors was encouraging; political interference - affected appointments and transfers of staff; 3) organizational factors: remuneration - not satisfied with salaries, unequal salaries in comparison with secondary or tertiary care hospitals; professional growth and training - limited educational opportunities; promotions and transfers - debates about need for the influential person to get a promotion; supplies and medical facilities - shortage of medicines, irregular supply; performance appraisal and job perceptions - limited knowledge of the staff about the performance appraisal, lack of proper supervision, on existent job descriptions; human resource management strategies - not stuffiest hr management documents and older ones needed to be revised.	Priority themes: lack of basic facilities for physicians and their families; remoteness and lack of education facilities - individual factors; nature of work respect - workplace factors; remuneration, job security, supplies and medical facilities, lack of promotions and politically influenced transfers, training and learning opportunities - organizational factors

Motivational determinants among physicians in Lahore, Pakistan Malik et al 2010	Pakistan lower middle income	To identify the determinants of job motivation among physicians, a neglected perspective, especially in developing countries.	mixed method	job motivation	physicians were selected from public primary, public secondary and public and private tertiary health facilities in the Lahore district, Pakistan; all registered physicians from the Pakistani medical and dentistry council working in the study health facilities at the time of recruitment	not stated	open-ended questionnaire	asked to list their 5 main motivators and demotivators in their own words	stratified random	360 physicians	not stated	50% of females	not stated	The general motivators, good pay, respect, serving people, good working conditions and career growth were common for both public and private health tertiary health care physicians. The only difference observed was that public sector physicians reported personal safety as a motivator rather than opportunities for higher qualification, as reported by those in the private sector.	
What interventions do South African qualified doctors think will retain them in rural hospitals of the Limpopo province of South Africa? Kotzee and Couper 2006	South Africa upper middle income	to identify interventions that will lead to improved retention of South African qualified doctors in rural hospital service in the Limpopo province of South Africa	qualitative (interviews)	job motivation	non-specialist South African qualified doctors working in Limpopo public hospitals during 2005 (mostly GPs)		semi-structured interviews	Main question: What would make it attractive for you to continue working longer-term in rural hospital service in Limpopo? (was given in advance) Follow-up questions about views on current career structure, significant demotivators, rural allowance, other incentives/disi	purposive or random? (both of these methods were stated but in different parts)	10 rural physicians (5- principal medical officers (GPs); 3- senior medical officers (registrars); 1- medical officer; 1 - chief medical officer)		60% - males 25-36	4-9 years	demotivators: 1) poor hospital infrastructure (road access, telephone connections, appropriate facilities and equipment) and working conditions (workload, understaffing, salaries); 2) poor hospital accommodation and social support (schooling for children, recreational facilities); 3) poor academic stimulation (lack of opportunities for continuing education; 4) difficulties with promotions; 5) poor hospital management (not enough support and respect from managers; bureaucracy, interference by non-clinical managers to work); 6) not enough opportunities to utilize annual leave (more annual, study, unpaid, sabbatical leaves are necessary); motivators: 1) specialists support (visiting consultants);	an incentive package should be introduced for rural doctors

								ncentives, 3 main issues. (main question and 5 follow-up questions)						2) relationship among staff	
Going private': A qualitative comparison of medical specialists' job satisfaction in the public and private sectors of South Africa Ashmore 2013	South Africa upper middle income	To elaborate what South African medical specialists find satisfying about working in the public and private sectors, at present, and how to better incentivize retention in the public sector.	qualitative (interviews)	job satisfaction	South African dual practice doctors working in urban, hospital settings: specialists and medical officers (GPs who work in hospitals)	GPs and rural doctors	semi-structured interviews	what dual practice specialists found comparatively satisfying About working in both the public and private sectors ('tell me about the history of your working life, starting from when you qualified as a doctor. I'm particularly interested in reasons for entering and leaving different jobs'; reasons for staying or leaving the public sector).	purposive (in 6 hospital departments)	74 interviews (included follow-up interviews) 23 - key informants (23 interviews) - (policymakers and managers); 28 - dual practice doctors (51 interviews)		36% - females 29-63		1) rewards (financial incentives and benefits): private (+) higher financial rewards (salaries) are the reason to work in the private sector, but income is not the only thing that doctors care about, so they are working in dual practice; (-) high migration costs (purchasing own equipment), no guarantee of a regular supply of private patients for specialists (no referral networks); public (+) public state pension, paid holidays, paid sabbatical leave, income stability, free use of research and academic facilities and less potentially costly medicolegal risk (lower probability of being sued), (-);low salaries. 2) work context: private - 'sell availability' , 'be on the end of the phone', solely responsibility for patients and not having others under your service; public - fewer resources, less equipment and drugs available, resource constraints, 'political in-fighting' among departments, lack of administrative staff, lack of doctors , low opportunities for career progression; 3) social work environment: higher sense of collegiality in public hospitals, poor relationships between doctors and nurses (nurses are undertrained, supportive managers are good incentive, but doctors felt undervalued, most respondents felt quite happy with patient interactions, but had legitimate issues (private patients were overly demanding,); 4) work itself - highly intense, research and teaching opportunities are welcomed, because it added variety; doctors felt more needed in public hospitals; more opportunities for more interesting and complex pathology in public; more autonomy in private	advantages and disadvantages of public and private clinics were given. Interventions should be developed based on these findings.

Burnout among Family Healthcare physicians: The challenge of transformation in the workplace Feliciano et al 2011	Brazil upper middle income	To understand how conflicts with the institution and disagreements regarding team members' attributions are interpreted by Family Healthcare physicians from the burnout perspective.	qualitative (interviews)	burnout	family healthcare (special program) physicians in Recife, Brazil with an experience more than one year		semi-structured interviews	1) discrepancies between institutional values and individual desires; 2) disagreement with the team members' competence; 3)negative consequences of the work.	purposive (based on management evaluation)	24 physicians (12- pediatricians, 8 - GPs, psychiatrist, infectologists, obstetric gynaecologist, anaesthesiologist)		66.7% - females	3 month - 10 years	1) Discrepancy between institutional values and individual desires: high workload (feel suffocated), bur resources are low; discrepancy in efforts made and results gained; excessive demands and low organizational support; problems are greater than available resources, high expectations during the education and then dissatisfaction; low professional achievement, low opportunities to continue education, lack of personal identity among organizational goals, values, tasks; 2) disagreement with team members' competences: uncertainty between the demands of the profession and knowledge/skills; luck of trust within the team; bureaucracy; lack of nurses competences, but they are powerful (act like doctors and prescribe drugs) - no place for the doctor - lower recognition; 3) negative consequences of work: insufficient institutional support, high stress triggered new illnesses and exacerbated existed ones	1) the role of the physician is not determined sufficiently, also, not clear roles between physician and nurse, lack of identity between physicians' values and organizational values; 2) expectations vs reality 3) high level of stress; 4) insufficient organizational support
Determinants of village doctors' job satisfaction under China's health sector reform: a cross-sectional mixed methods study Li et al 2017	China upper middle income	to describe village doctors' job satisfaction under the context of health sector reform and investigate the associated factors	mixed methods of	job satisfaction	village doctors who worked in the 12 chosen counties for more than six month or health managers who were responsible for village doctors issues.		semi-structured interviews		purposive (gender, age, geographic location, and levels of seniority)	34 interviews 21 with village doctors and 13 with managers		23.5% of females		1) years of experience (age) - higher professional reputation with ages, higher trust from the patients - older participants had higher job satisfaction; 2) income - is low - strong reason for job dissatisfaction; 3) pension plan - low pension rate for village doctors; 4) workload - transportation problems; 4) integrated management (attempt to manage village doctors as regular doctors) - increased respect among population, more responsibilities	village doctors in China transformed from barefoot doctors, but the education process of them is not clear, seems like only 3 years of medical training are required (Hu et al., 2017)

The burnout among emergency physicians: Evidence from Russia (sociological study) Liadova et al 2017	Russia upper middle income	to determine the prevalence burnout and its reasons among doctors occupied in emergency aid departments	mixed methods	burnout	physicians, who provide emergency care service for 24 hours a day and are occupied in emergency trauma aid department in one of the central public clinics in Moscow, Russia.		in-depth interviews (stated in the paper), but seems like semi-structured	What are the burnout causes? (personal and workplace conflicts, their cases, work satisfaction, opportunities for professional progress, ways to compensate occupational stress).		50 interviews emergency care physicians		40 % of females 25-50	less than 5 years - more than 20 years	1) excessive workload and low wage level - 99% (low salary 99% and too many work hours - 56%); 2) 'difficult patients' - 53%; 3) total control and growing requirements - 51%; 4) night shifts - 46%; 5) increasing medical documentation - 41%; 6) organizational hierarchy - 33%; 7) family problems - 21%; 8) personal relationship - 11%. In addition to these questions, the respondents were asked about their ways to compensate for occupational stress. The most part (60%) of our respondents reported reliance on psychotropic substances (drinking alcohol, smoking, and drugs), 30% of them go in for sports, 10% do nothing.	physicians in the study were highly dissatisfied

Satisfaction, motivation, and intent to stay among Ugandan physicians: a survey from 18 national hospitals Luboga et al 2010	Uganda low income	To explore physician reasons for staying, how satisfied they are with their current positions, what could entice them to stay longer, and their future career intentions.	mixed-methods	job motivation, satisfaction	physicians who were working at 10 facilities in Uganda		focus groups	working and living conditions	stratified random sampling	11 focus groups	49 physicians	females 10% 26-70/36	almost 10 years in their professions, in their current positions an average 6.5	1) quality of management: respect and support from supervisors; assisting in problem-solving, enough autonomy to staff, adequate supervision, sense of ownership and responsibility instillation. 2) availability of equipment, supplies and drugs: infrastructure issues, complaining about lack of clean water or electricity, not enough beds fro patients or space in the ward, and poor infection control. 3) staffing and workload: physicians shortage, the single physician was playing multiple roles in the facility (surgeon, on-call doctor), unreasonable patient loads, lack of available specialists, positions that have gone unfilled for months or years. 4) political influence: lack of confirmation of their positions, interference by district-level politicians in the decision making at health facilities, and intimidation of health workers by local politicians - politicians with no health knowledge should not be put in a decision-making role for health issues in the district. 5) community and location: lack of opportunities for study leave, learning in more high-tech or well-resourced environments, and the lack of promotion or growth available. 6) compensation and job security: none of the physicians felt their compensation acceptable combined with job insecurity.	

Job Satisfaction Analysis in Rural China: A Qualitative Study of Doctors in a Township Hospital Chen et al 2017	China upper-middle income	to understand the level of job satisfaction as felt by primary Health care providers.	qualitative	job satisfaction	doctor employed in a township health center, willing to deliver consent to participate documentation during the FGDs, and was able to communicate in the Mandarin Chinese or the local dialect (		focus groups	The guide included questions and queries on the following six themes: attitudes towards working conditions; views about workload and financial rewards; willingness to provide health care; attitudes towards job achievement; attitudes towards doctor-patient relationships; and measures are taken to improve doctors' job satisfaction.		5 focus groups	39 doctors	59% females /47; 39; 42; 38; 45	more than 10 years	Thefindings revealed six main themes relating to doctors' job satisfaction in township health centres: attitudes towards working conditions; views related to workload and financial rewards; willingness to provide health care; attitudes towards job achievement; attitudes towards doctor-patient relationships; and measures are taken to improve the doctor's job satisfaction.	