Primary Health Centres in India

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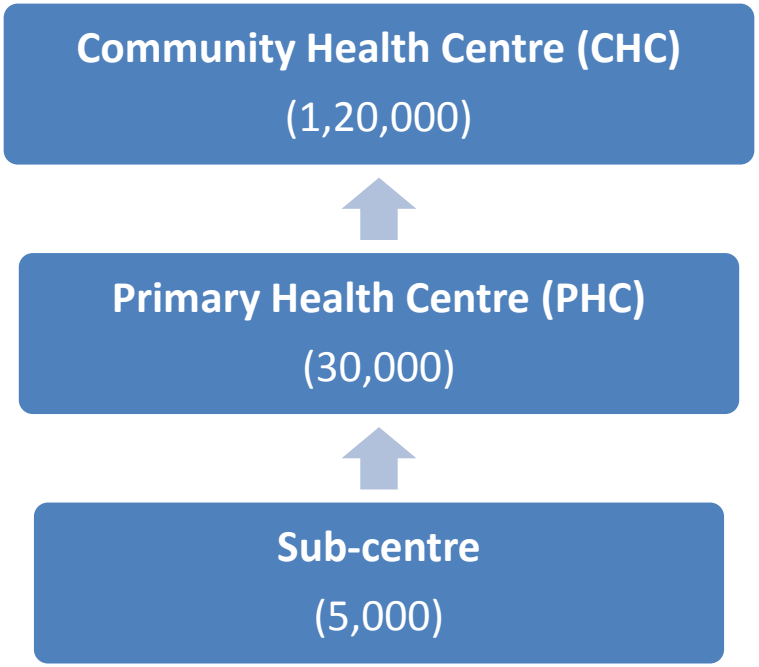
Indian Public Healthcare System

- Public healthcare infrastructure in India is developed as a three-tier system based on population norms



Source: Rural Health Statistics, Ministry of Health and Family Welfare, Govt. of India (2007)

Indian Public Healthcare System

- Sub-centres are staffed by an ANM nurse and are equipped to provide basic care
- PHCs are the first point of contact between the community and a doctor; referral point for 6 sub-centres
- CHCs are manned by medical specialists (4) who can provide surgical and specialist care; referral point for 4 PHCs

Indian Public Healthcare System

- In March 2007, there were 1,45,272 sub-centres, 22,370 PHCs and 4,045 CHCs in India (GOI, 2007)
- Despite such a burgeoning number of public medical facilities, not many people are found to use them (Banerjee, Deaton and Duflo, 2003)
- A possible reason might be the dysfunctional nature of the public service delivery system

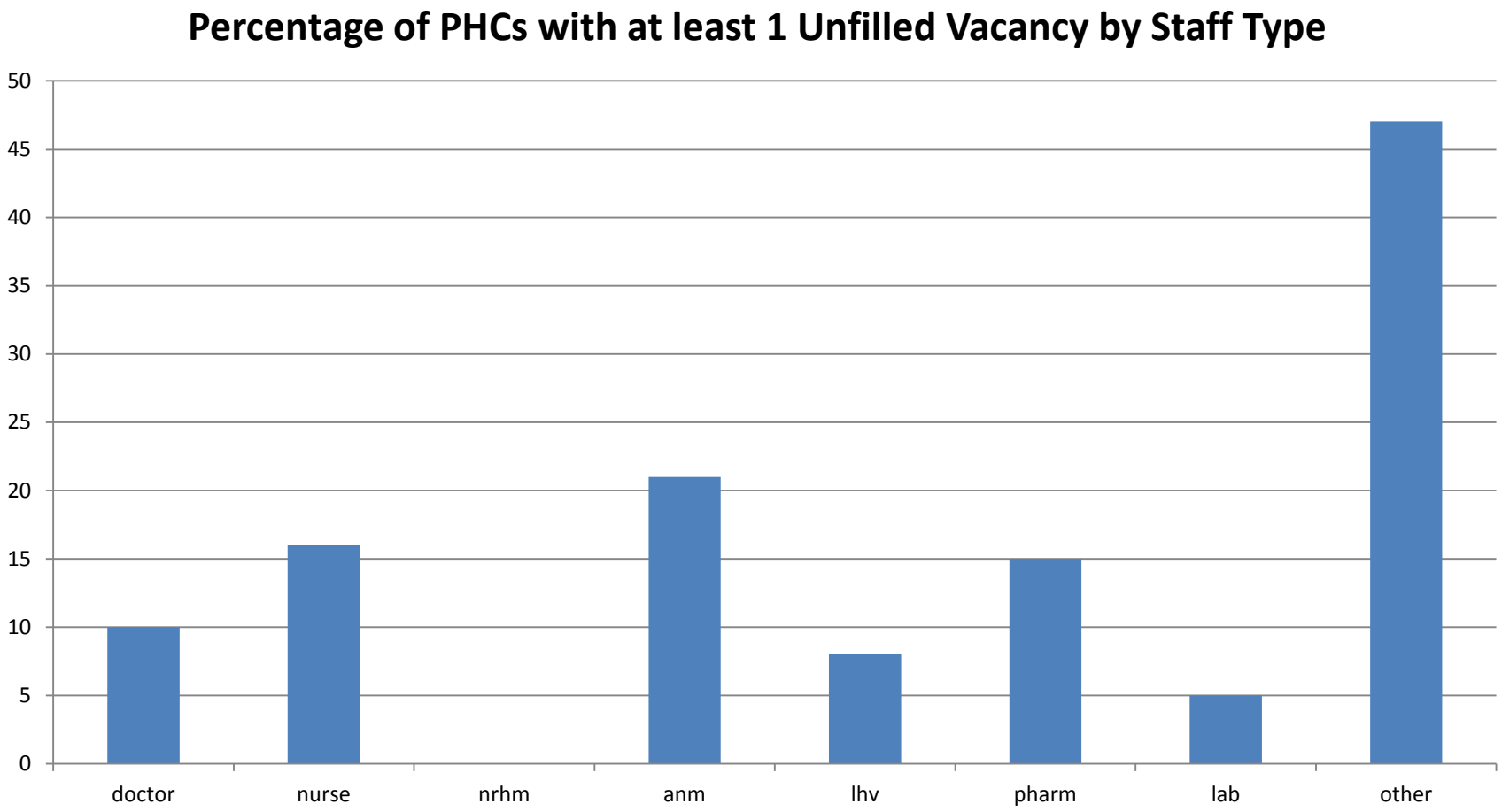
Our study

- In order to investigate this further, we conducted a survey of 73 PHCs in rural Karnataka in December 2008
- We paid unannounced visits to each PHC once in the morning and again in the afternoon in the same day
- We collected the following information:
    - if the PHC was open
    - how many staff posts were allocated to the PHC
    - how many of these staff posts were filled/appointed
    - how many of these appointed staff were present in the PHC
    - how many patients were waiting at the PHC

PHC Survey: Summary Statistics

		All Staff	Medical Staff
Average no. of individuals served by each PHC	?		
Average no. of posts allocated per PHC		11.8	8.6
Average no. of posts filled per PHC		10.0	7.6
Average no. of unfilled vacancies per PHC		1.8	1.0
Percentage of PHCs with at least 1 unfilled vacancy		70.0	52.0

Unfilled Vacancies



PHC Opening Patterns and Staff Absenteeism

Visit	Morning	Afternoon
Percentage of PHCs that were open	89	86
Percentage of PHCs that were open, conditional on being open in morning		95
Percentage of PHCs that were open, but no ..... found*:		
Doctor/Medical Officer	38.1	40.9
Nurse/Midwife	25	17.1
NRHM official	28.6	21.4
Health worker/ANM	79	74.2
Health Assistant/LHV	69.4	72.9
Pharmacist/Compounder	59.6	49.0
Lab Technician/Radiographer	41.3	40.0
Average no. of patients seen waiting outside PHC	7.8^	4.8

Notes: * conditional on there being an appointed personnel (filled post) in the PHC. ^ 1 PHC reports 100 waiting patients, but even after excluding this outlier, avg. no. of patients waiting is 6.5

PHC Opening Patterns and Staff Absenteeism

		Afternoon			
		Absent	Present	.	
Morning	Absent	**19**	4	0	23
	Present	6	31	1	38
		25	35	1	61

		Afternoon		
		Absent	Present	
Morning	Absent	6	2	8
	Present	0	27	27
		6	29	35

- **Doctors**
  - Only 51% of PHCs have a doctor present both in the morning and afternoon (conditional of having a filled doctor post)
  - 31% of PHCs do not have a doctor present at either time
- **Nurses**
  - 77% of PHCs have a nurse present both in the morning and afternoon (conditional of having a filled nurse post)
  - Hence absenteeism greater among doctors

Does remoteness make absenteeism worse?

- Remote health centres are more difficult to get to
  - Reasonable to expect more absenteeism
- We computed the distance from each centre to the nearest major town (taluk headquarters town)
- Looked at two measures of doctor absenteeism
  - Some absenteeism
    - A doctor was absent during at least one of our visits (each centre visited 1-3 times)
  - Full absenteeism
    - No doctor was present during any of our visits

Does remoteness make absenteeism worse?

- $A_{cr} = a*d_{cr} + k_r + e_{cr}$
- We regress absenteeism on distance to nearest town and taluk (regional) fixed effects
- No effect of remoteness on total absenteeism
- A marginally significant (p=0.07) and *negative* effect of remoteness on partial absenteeism
  - For each additional kilometer away from the nearest town, the probability of encountering doctor absenteeism falls by 3%.
- Tentative interpretation: Doctors working in remote centres need to live locally, so their alternative cost and travel cost are lower