Effectiveness of new roles in PHC: International evidence review

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Outline

1. Policy questions
2. Definition of mid-level health workers (MLHW)
3. Effectiveness of care provided by MLHW
4. Range of services provided by MLHW and level of care
5. Evidence by high, medium, low income countries
6. Conclusion
7. Some context questions…
1- Country Policy questions on introduction of new roles in PHC…

1. Can mid-level health workers provide same quality care as physicians?

2. What kind of services can mid-level health workers provide in PHC?

3. How can coverage and quality of PHC services be improved?

4. Is introducing new roles in PHC a feasible policy option for my country?
2- Definition of Mid-level Health Workers

• Those who have received **shorter** training (2-4 years) than medical doctors but will perform **some of the same tasks** as medical doctors. Normally these workers follow **certified** training courses and receive **accreditation** for their work*.

• Clinical care or preventive care and health promotion.

• Community, in a primary care facility or in a hospital.

• **Wide variations across countries**

*Source: Lassi 2013. Quality of care provided by mid-level health workers: systematic review and meta-analysis
3- Effectiveness of care provided by mid-level health workers

3.1- Quality of care provided by mid-level health workers: systematic review & meta-analysis, Lassi 2013

- Experimental & observational studies
- 53 studies included
- Mostly high income countries + Africa
- Strength of the evidence low or very low

**Overall conclusion**: “There is no difference between the effectiveness of care provided by mid-level health workers in the areas of maternal and child health, communicable and noncommunicable diseases and that provided by doctors”
3.2- The impact of non-physician clinicians, Laurant 2009, (systematic review)

- 24 systematic reviews included
- 3 controlled observational studies
- Nurses, physician assistants, and pharmacists

“Non-physician clinicians working as substitutes or supplements for physicians in defined areas of care can maintain and often improve the quality of care and outcomes for patients”
3.3- Substitution of physicians by nurses in primary care: a systematic review & meta-analysis, Martinez-Gonzalez 2014

- 24 Randomized controlled trials included
- 2 economic analysis included
- Quality of evidence limited

“Nurse-led care seems to have a positive effect on patient satisfaction, hospital admission and mortality by reducing the overall risk of hospital admission and by reducing mortality”
3.4- Health workforce skill mix and task shifting in LIC: a review of recent evidence, Fulton 2011

- 31 studies included
- Task shifting
- Low income

“Studies provide substantial evidence that task shifting is an important policy option to help alleviate workforce shortages and skill mix imbalances”
3.5- A systematic review of task-shifting for HIV treatment and care in Africa, Callaghan 2010

- 84 studies included
- 51 reported outcomes
- Task shifting

“Task shifting is an effective strategy for addressing shortages of human resources for health in HIV treatment and care”

- No significant difference on ART failure, mortality, failure of viral suppression or immune recovery between the groups
3.6- Effects of substituting nurse practitioners, physician assistants or nurses for physicians concerning health care for the aging population: a systematic literature review, Lovink 2017

- 10 studies included
- 2 of them Randomized controlled trials included

“Physician substitution in health care for the aging population may achieve at least as good patient outcomes and process of care outcomes compared with care provided by physicians”
3.8- Non-medical prescribing vs medical prescribing for acute and chronic disease management in primary and secondary care, Weeks 2016, Cochrane review

“Non-medical prescribers were as effective as usual care medical prescribers”

- “comparable outcomes for systolic blood pressure, glycated hemoglobin, low-density lipoprotein, medication adherence, patient satisfaction”
3.9- Mid-level health workers: The state of evidence on programmes, activities, costs and impact on health outcomes, literature review, Lehmann 2008
“…in a conducive environment, mid-level workers can make a vital contribution to improving access and quality of healthcare”

3.10- Mid-level health providers, a promising resource to achieve MDGs, WHO, 2010 Report
“…where mid-level providers are adequately trained, supported and supervised, they can deliver essential health services including maternal and child health, HIV and other priority conditions with similar quality standards as physicians, and often for a fraction of the cost”
4- Range of services provided by mid-level health workers

• More articles in secondary and tertiary care than in primary care, but there is useful information on both
• Primary Care:
  • Maternal and child health
    o Insertion of intrauterine devices, abortion care, antenatal care, intrapartum care, integrated management of childhood illnesses (IMCI)
  • Infectious diseases care
    o HIV management and treatment
  • Non-communicable disease care
    o Assess and manage cardio-vascular risk (BP control, glycated hemoglobin, low-density lipoprotein, medication adherence)
• Overall primary care services
5- Evidence by high, medium, low income countries

• Much of the evidence comes from high-income countries.

• Among LMICs:
  • Most evidence from Africa. Non-physician clinicians is long-established: 25 out of 47 countries in sub-Saharan Africa had non-physician clinicians in 2007 *
  • In Asia, there is less documentation and experience. Also appears to be less widespread.

* Source: Mullan F, NPCs in 47 sub-Saharan African countries, Lancet 2007
** Source: Rao, which doctor for primary health care? Quality of care and NPCs in India, Social Science & Medicine 2013
6- Conclusion: MLHW as a reasonable policy option...

- Health care provided by MLHW is as effective as care provided by physicians for specific interventions.
- Lower training costs, reduced training duration, and potential for success in rural placements.
- Expanding coverage and access, shortage of human resources, retention of health workers in rural areas, international migration of health workers.
- MLHW need to be well-embedded in the system, receive adequate training, support, recognition and pay.
- The mid-level occupation should also be well regulated by competent regulatory bodies.
Context is critical…

- Does your country have enough doctors in rural areas?
- Is it easy to recruit and retain doctors in rural areas in your country?
- What is the quality of PHC services in your country? Are PHC services trusted by the community?
- What range of services should MLHW provide?
- Is there enough political and institutional support to implement new roles in PHC?