



**Karolinska
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Expanding providers and task sharing

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Task shifting- goal

- Lead to better or maintained level of care quality
- Should not lead to a lower quality of care

What is a midlevel provider?

- More than anybody- not lay workers
- Not physicians
- Physiotherapist
- Nurse
- Midwife
- International words include: Midlevel provider, clinical officer, physician assistant etc...



*Specialty training for
mid-level providers*

Midlevel providers- Reproductive health care

- Obstetric care
 - Emergency cesarians sections performed by midlevel proviers has been shown to be safe and effective³



³ Wilson et al , BMJ, 2011

Recent Cochrane report



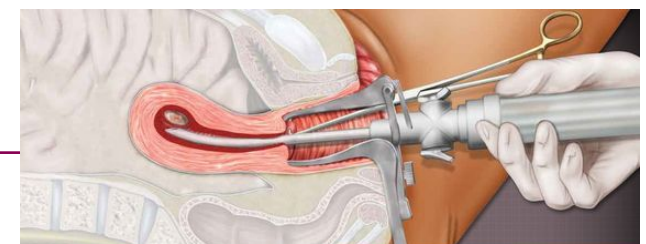
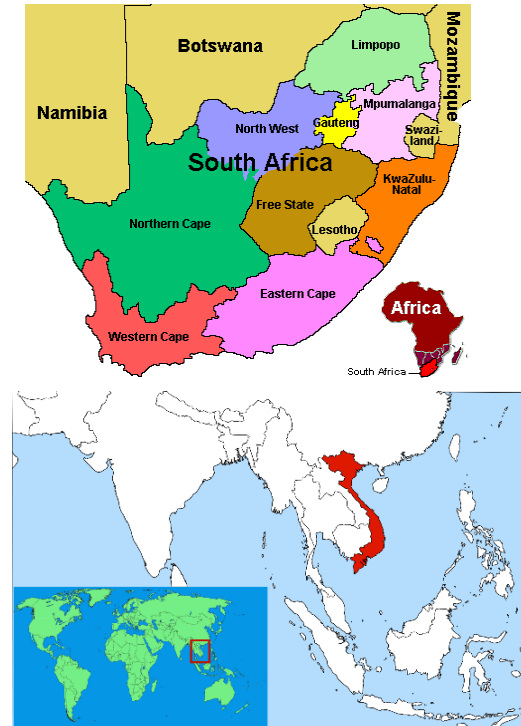
Doctors or mid-level providers for abortion (Review)

Barnard S, Kim C, Park MH, Ngo TD

[Cochrane Database Syst Rev.](#) 2015 Jul 27;(7):CD011242.
doi:10.1002/14651858.CD011242.pub2.

Midlevel providers for MVA

- 1160 women participated in South Africa 1734 in Vietnam.
- up to 12 weeks gestation
- randomized to a doctor or a mid-level provider
 - followed-up 10–14 days later.
 - The primary outcome was complication of abortion.
- Complication in SA rates were
 - 1.4% (eight of 576) for mid-level providers and
 - 0% for doctors (difference 1.4, 95% CI 0.4 to 2.7)
- In Vietnam, rates were 1.2% for both
- No significant differences could be determined
- Previous non-randomized studies have been performed in high resource settings



Post abortion care in a low resource setting

- District level in Uganda
- Randomized- the PP population
 - 472 in midwife group and
 - 483 in physician group
- complete abortion
 - 95.8% of women in the midwife group
 - 96.7% in the physician group.
- The risk difference for midwife versus physician group was - 0.8% (95% CI -2.9 to 1.4), falling within the predefined equivalence range (-4% to 4%).



Medical abortion care in a low resource setting

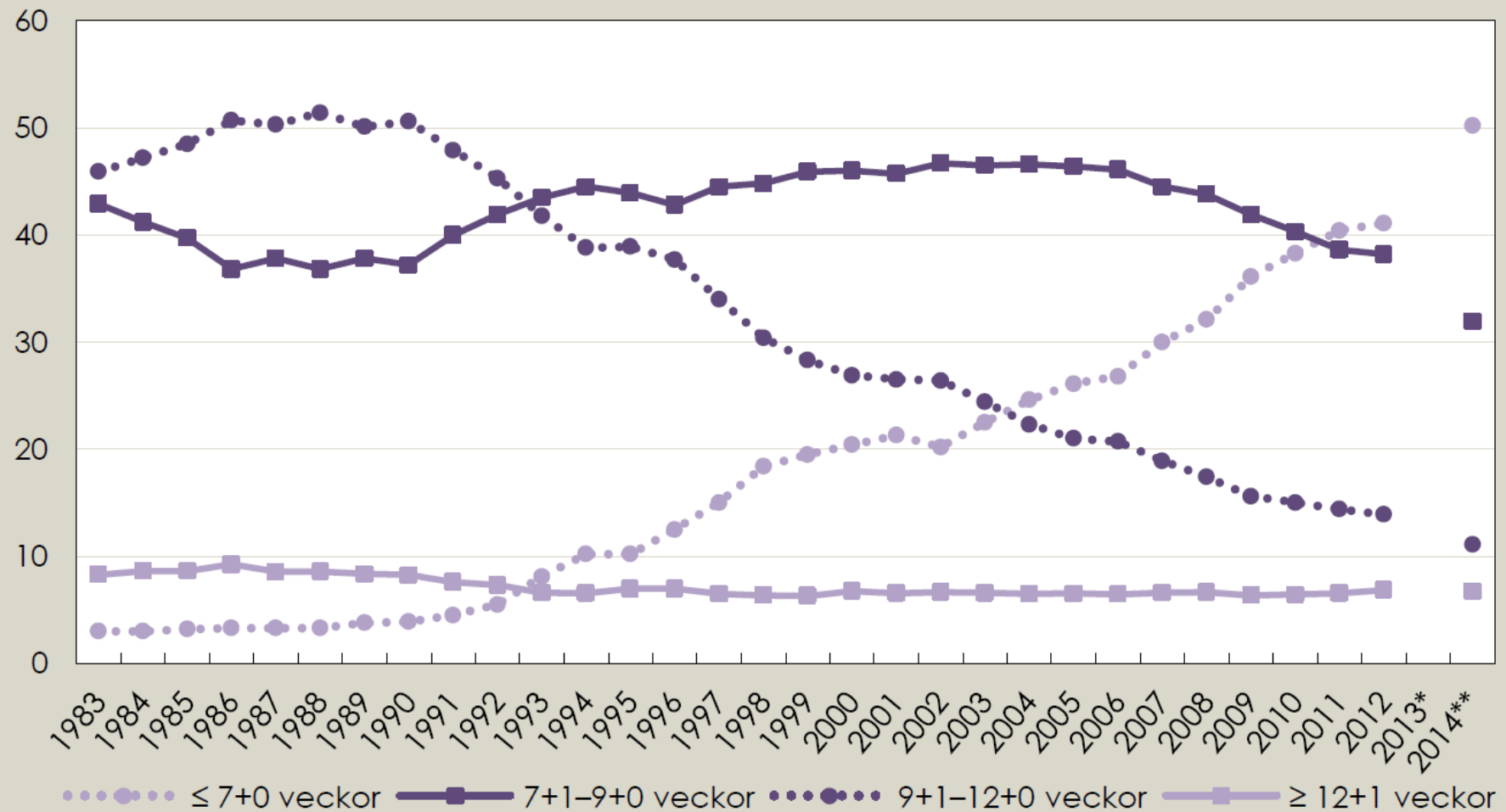
- five rural district hospitals in Nepal.
- less than 9 weeks (63 days) and resided less than 90 min away
 - 514 randomized to a doctor
 - 518 to a midlevel provider included in primary endpoint.
- Success
 - 97.3% in midlevel providers group
 - 96.1% in physician group.
- The risk difference for complete abortion was 1.24% (95% CI - 0.53 to 3.02) (within the predefined equivalence range of -5% to 5%).



Abortion at different gestational ages

Figur 3. Aborter efter graviditetslängd (veckor+dagar), 1983–2014

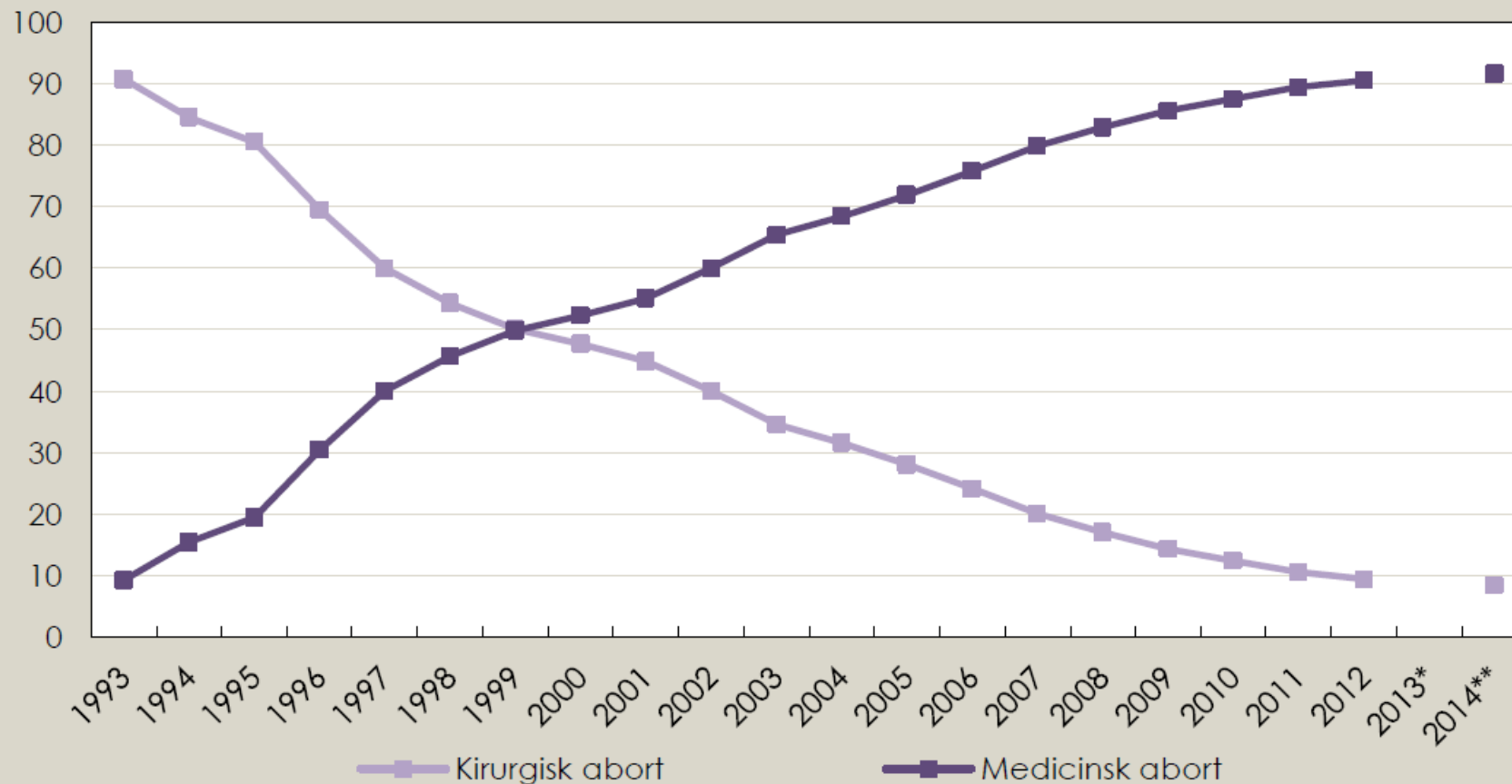
Per 1 000 kvinnor



Surgical abortion before 9 weeks

Figur 4. Andel aborter vid graviditetslängd $\leq 9+0$ veckor+dagar utförd med medicinsk eller kirurgisk metod, 1993–2014

Procent



* Statistikinsamlingen stoppad under 2013

** Ny metod för statistikinsamling från 2014

Källa: Socialstyrelsens abortstatistik

Hypothesis

- Nurse midwives can perform
 - counseling,
 - Exam, including vaginal ultrasound
 - Provide the abortion information and the drugs
 - And the follow up
- For early medical abortion as effectively and safely as physicians in a high resource setting
- In addition,
 - acceptability will be high and
 - it will be cost effective

Secondary objectives

- Acceptability of nurse midwife provision of abortion
- Investigate prescription patterns of contraception
- Analyze the cost effectiveness of midwife provision of abortions

We performed a study

Nurse midwives with long experience in abortion care



- Specifically designed education in ultrasound in early pregnancy
 - Theory
 - practice
- 50 ultrasounds performed with physician present
- 50 ultrasounds confirmed by physician

Mandatory physician consult by midwife

- No visible intra-uterine pregnancy
→ No training in adnexal pathology
- Duplex pregnancy
→ Requires risk/benefit analysis in case of ambivalence
- Missed abortion
→ Higher failure rates with treatment
- Visually abnormal adnexa
- Bacterial vaginosis
→ No prescription rights for this condition

Guidelines for midwives

- No requirement for visible fetus
- Delay of abortion should NOT be considered
- If the US findings are in concordance with LMP the abortion is performed

If the physician does not find any signs of ectopic pregnancy the abortion is performed with s-hcg on day of mifepristone and one week after-

There is NO delay of the abortion!



The efficacy, safety and acceptability of medical termination of pregnancy provided by standard care by doctors or by nurse-midwives: a randomised controlled equivalence trial

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Results from the study

- 1180 kvinnor randomized

But

- 481 in the midwife group
- 457 in the physician group

available for final analysis

Mostly due to change of mind regarding method (chose surgical abortion- no difference between groups)

Analysis of effectiveness and safety

Outcome measure	Allocated to nurse midwife (%)	Allocated to physician (%)	Total (%)
Efficacy	476/481 (99)	445/457 (97.4)	923/940 (98.2)
Safety	453/473 (95.8)	414/443 (93.5)	867/916 (94.7)

No significant differences between groups

Acceptability

Would prefer	Allocated to Nurse midwife (N=534)	Allocated to Physician (N=533)	p-value
Nurse midwife	200	108	<0.001
Läkare	5	12	
Indifferent	271	320	
Missing answer	58	93	

Perscription of post abortion contraception

- Nurse midwives prescribed long acting reversible contraceptives (LARCs= implants, IUC) for
→ 290/532 women
- Physicians for
→ 241/528 women
- $p=0.004$



Cost effectiveness



- The model took into account :
 - the cost of midwives and physicians (based on salaries, payroll tax, and time spent with the patients),
 - usage of surgery rooms,
 - consultation time for second opinion with a physician or senior physician,
 - cost of the treated women's time, and
 - Initial training of participating nurse midwives

The results show that nurse midwife provision of early medical abortion is cost effective.

How to implement a national program

- Guidelines for nurse midwives in abortion care
- National training program
- Guidelines for clinics
- Maintain physician training in abortion care and provision

Requirements for nurse midwife provision of early medical abortion

- **National society for Obstetricians and Gynecologists in Sweden**



- Only to be performed by certified nurse midwives
 - Completed course in theoretical and practical ultrasound
 - Several years of work in abortion care
- Requirement for clinic
 - Nurse midwife to have no less than 300 patients per year
 - Only healthy women should be treated by midwives
 - Training clinics should be able to offer physician adequate training in abortion care
 - A physician should be available for IMMEDIATE! Consultation (without the woman having to put on clothes and wait...)

The course

- 3 day course
- Lectures on
 - ultrasound safety
 - Technical issues such as frequency and penetration, focus points, zoom boxes etc
- Workshop
 - Ultrasound
 - Get to know the machine
- Practical training
 - Dolls
 - Professional patients
 - Real patients

To become certified

- Passed exam!
- 50 ultrasounds documented and performed with physician
- 50 ultrasound pictures and patients sent in for external evaluation
- Certificate is issued!

In conclusion

Provision of abortion by midlevel providers is:

- Effective
- Safe
- Highly acceptable

Also in a high resource settings

