

# EquiNaM

The equity impact of community-based interventions to reduce neonatal mortality: a secondary analysis of 4 cluster-randomised trials



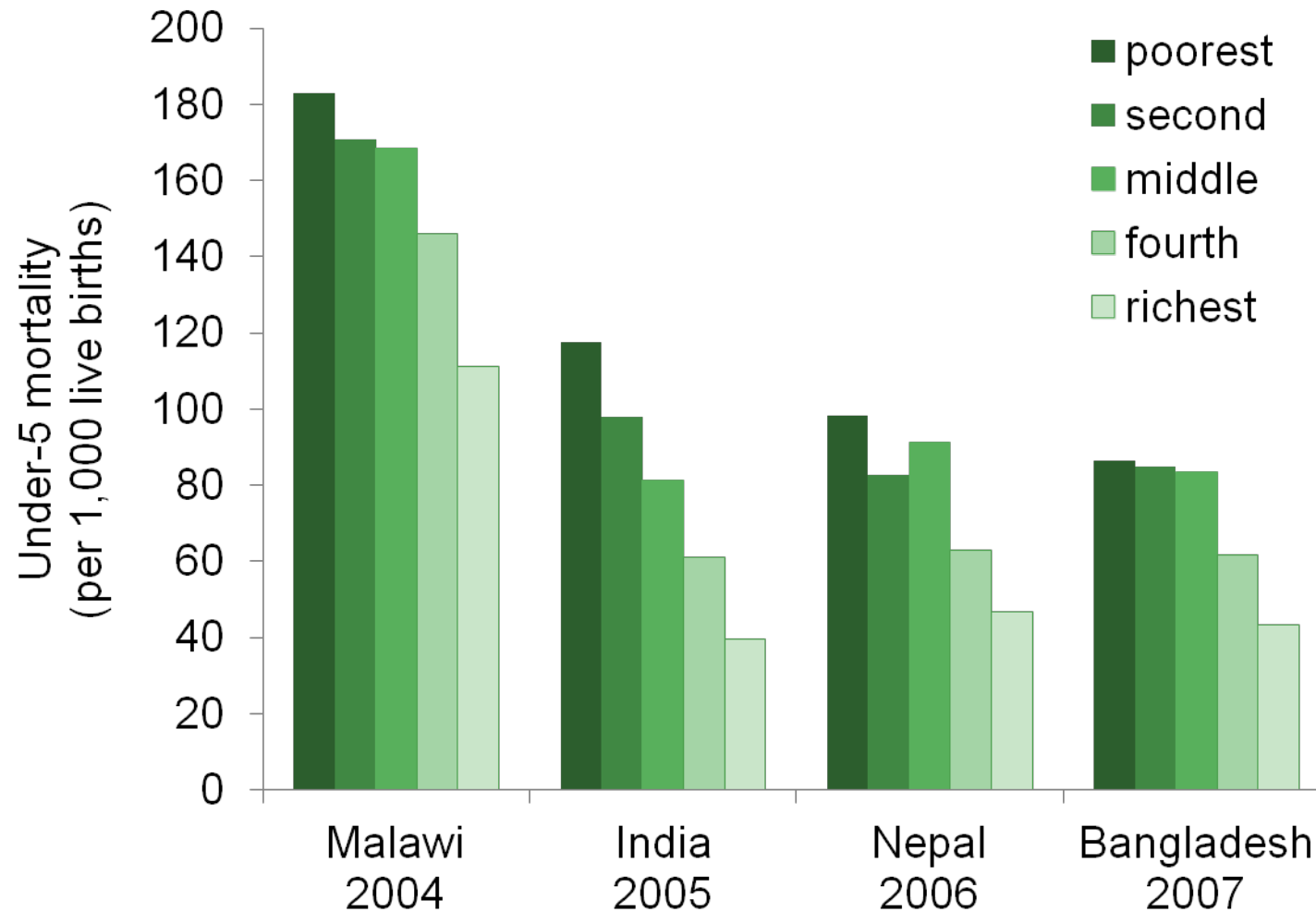
# Background: large inequalities

- Progress towards **Millennium Development Goals** has been highly uneven.
- **Lower socio-economic groups** lag behind their more fortunate compatriots for most MDGs.
- In particular, **inequalities in maternal and child health** are huge.

# Large poor-rich inequalities in mortality within countries

EquiNaM

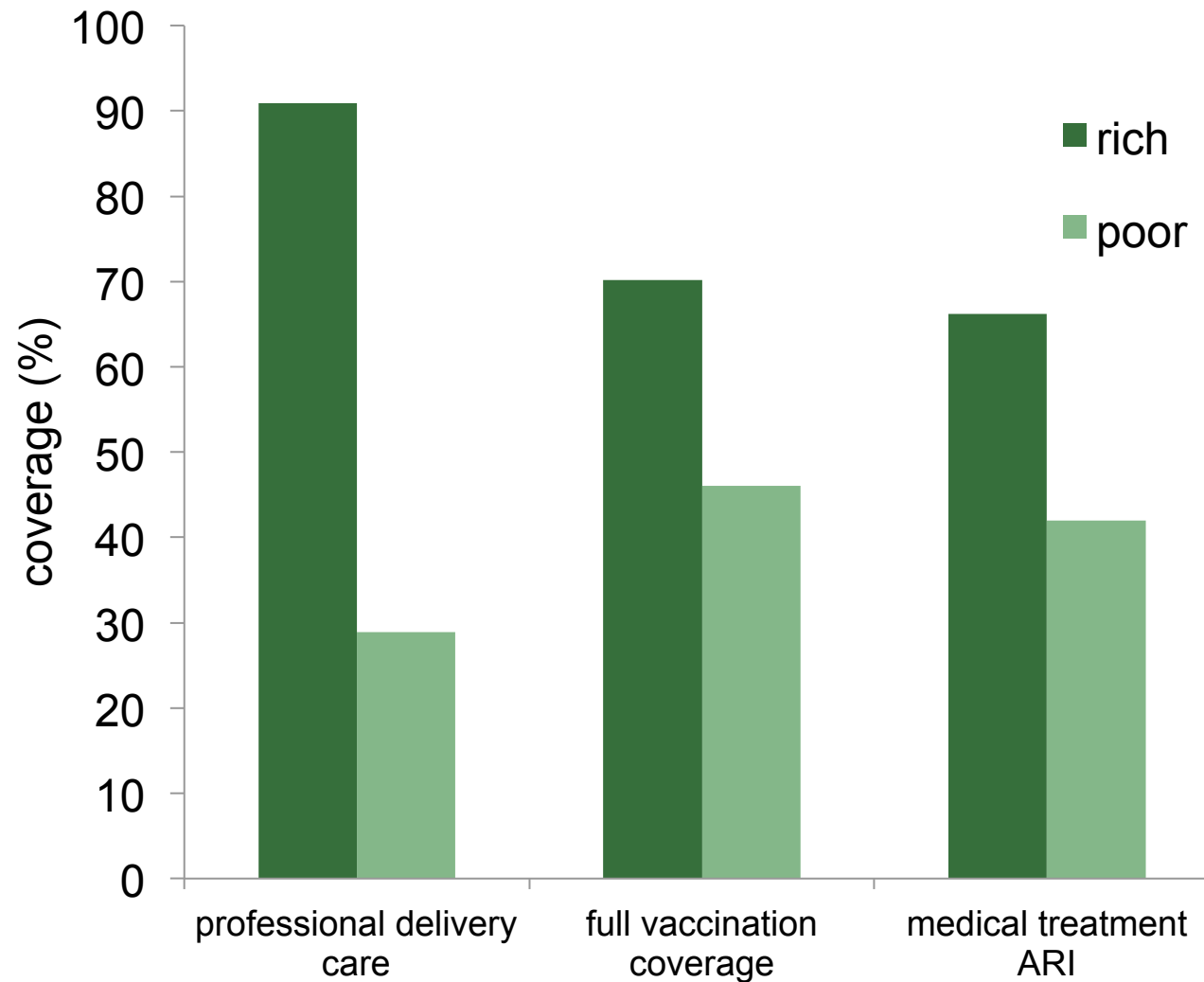
building evidence to support equitable improvement  
in newborn and maternal health



# Background: pro-rich interventions

- To make things worse, **effective interventions** are known, but **rarely reach those who need them most.**
- **Even ‘basic’ interventions** that are thought to be pro-poor, such as immunisation, tend to reach the better-off to a greater extent.

# Background: inequalities in health care use



# Introduction

## *Hart's inverse care law*

*“The availability of good medical care tends to vary inversely with the need for it in the population served.” (Hart, 1971)*

Paucity of evidence on how to reach the most in need.

## *Community-based interventions – some indications that:*

- risk of elite-capture when engaging whole communities
- reinforce existing hierarcies

*What about the participatory women's group intervention?*

→ Do they reach & benefit lower socio-economic groups?

# Background: community interventions

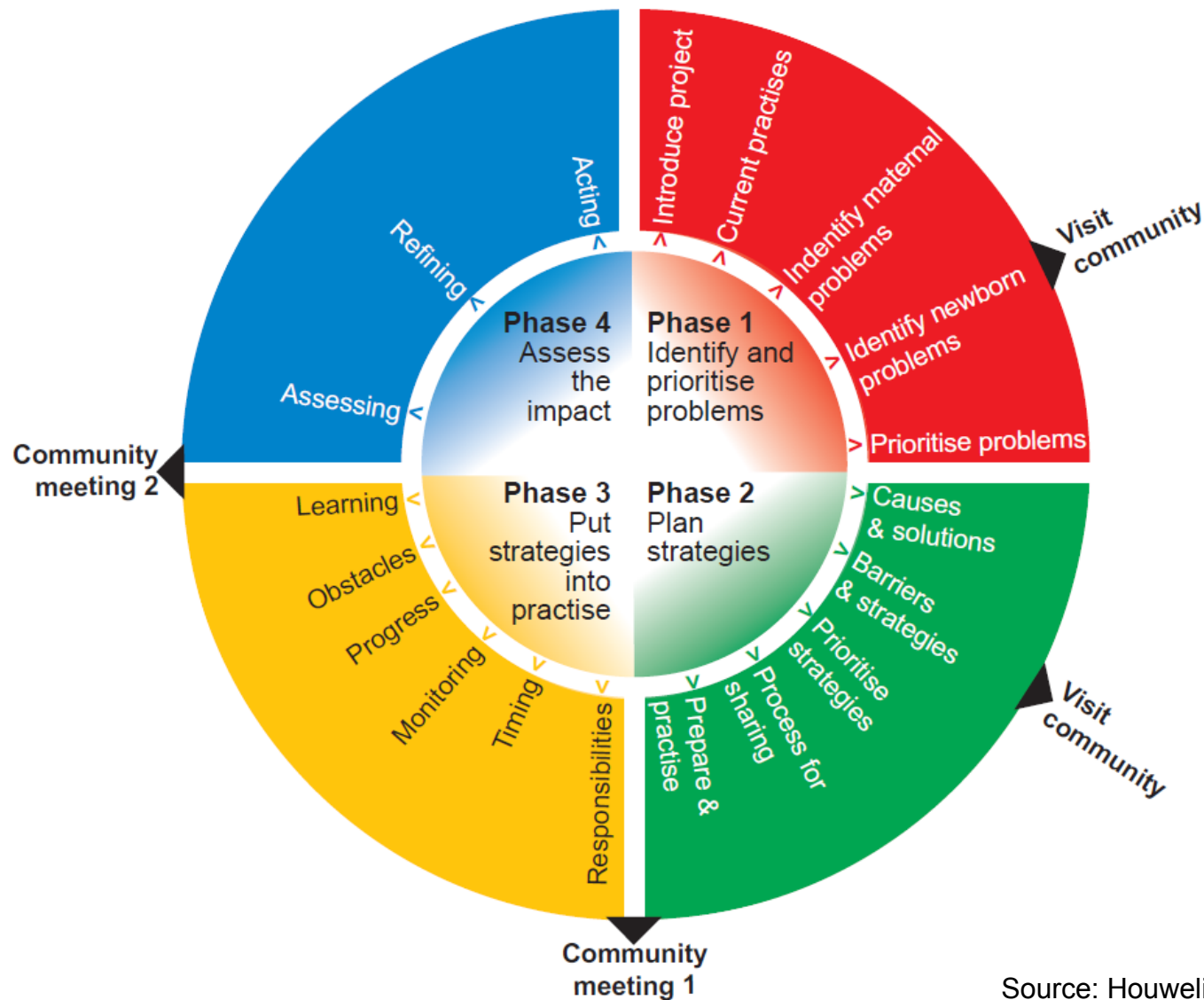
## Randomized controlled trials

- Community mobilisation with women's groups
- To improve newborn & maternal health
- Simple, low cost
- Women in reproductive age

# Women's group action cycle

EquiNaM

building evidence to support equitable improvement  
in newborn and maternal health



Source: Houweling et al 2013, *Trials*



# Trial sites

EquiNaM

building evidence to support equitable improvement  
in newborn and maternal health

## Meetings:

- monthly
- local facilitator
- participatory learning & action cycle
- picture cards, games, story telling



EKJUT - *adivasi* communities  
Jharkhand & Orissa, INDIA



MaiMwana & MaiKhanda  
MALAWI



Perinatal Care Project  
3 rural districts, BANGLADESH



Makwanpur & Dhanusha  
NEPAL



SNEHA - Slum communities  
Mumbai, INDIA

# Background: impact on NMR

## Strong effects on mortality in rural sites with high women's group coverage

### Meta analysis:

33% reduction in neonatal mortality in sites with high coverage\* (*Prost et al. Lancet 2013*)

(\* at least 30% of pregnant women attending groups)

# Our research questions

*In the trials with a strong impact on NMR:*

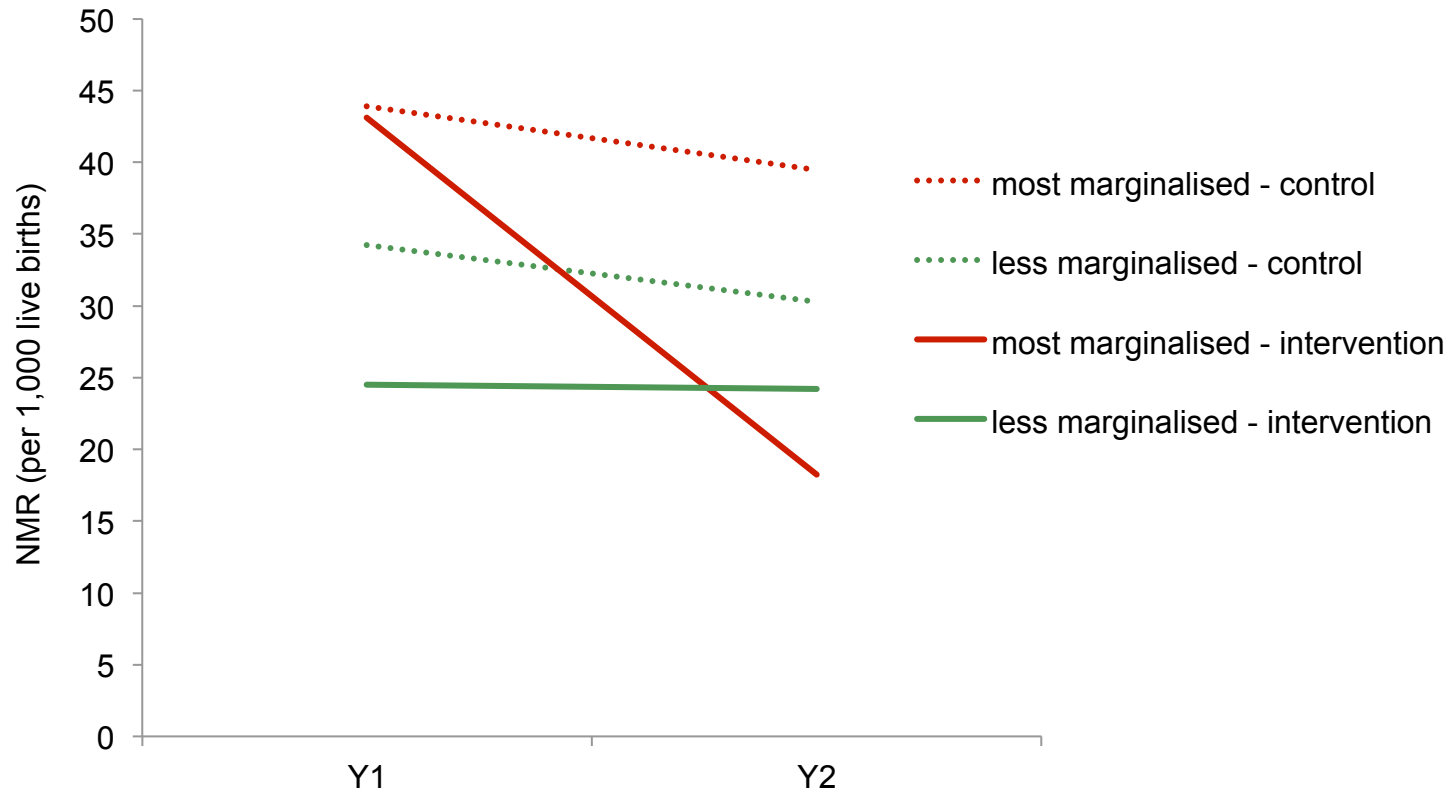
- What is the effect of the women's group intervention on **lower and higher socio-economic** groups?
- Is there a **difference** in intervention effect between lower and higher socio-economic groups?
- How can these effects and any differences be **explained**?

## Secondary analysis of 4 RCTs

- India (Ekjut), Nepal (Makwanpur), Bangladesh (PCP-II), Nepal (MaiMwana)
- intervention effects on NMR & health behaviors among lower and higher socio-economic groups
- random effects logistic regression modelling
- testing for differences in effect between lower and higher groups.

# Findings: impact on NMR

## Nepal (Makwanpur)



### Intervention effect (OR (95%CI))

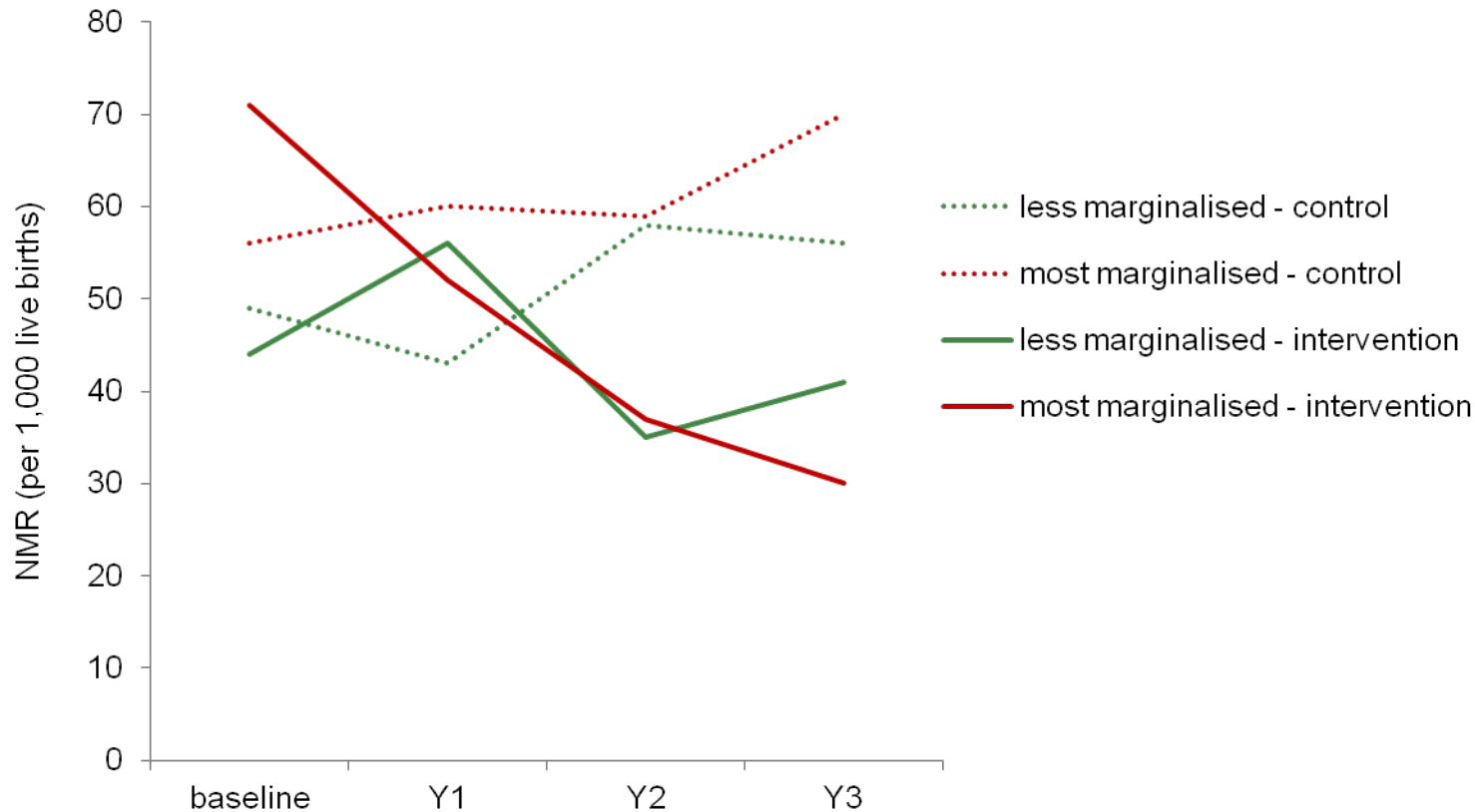
- Most marginalised: 0.38 (0.17; 0.84)

- Less marginalised: 0.71 (0.40; 1.26)

*p-value for difference = 0.21*

# Findings: impact on NMR

## India (Ekjut)



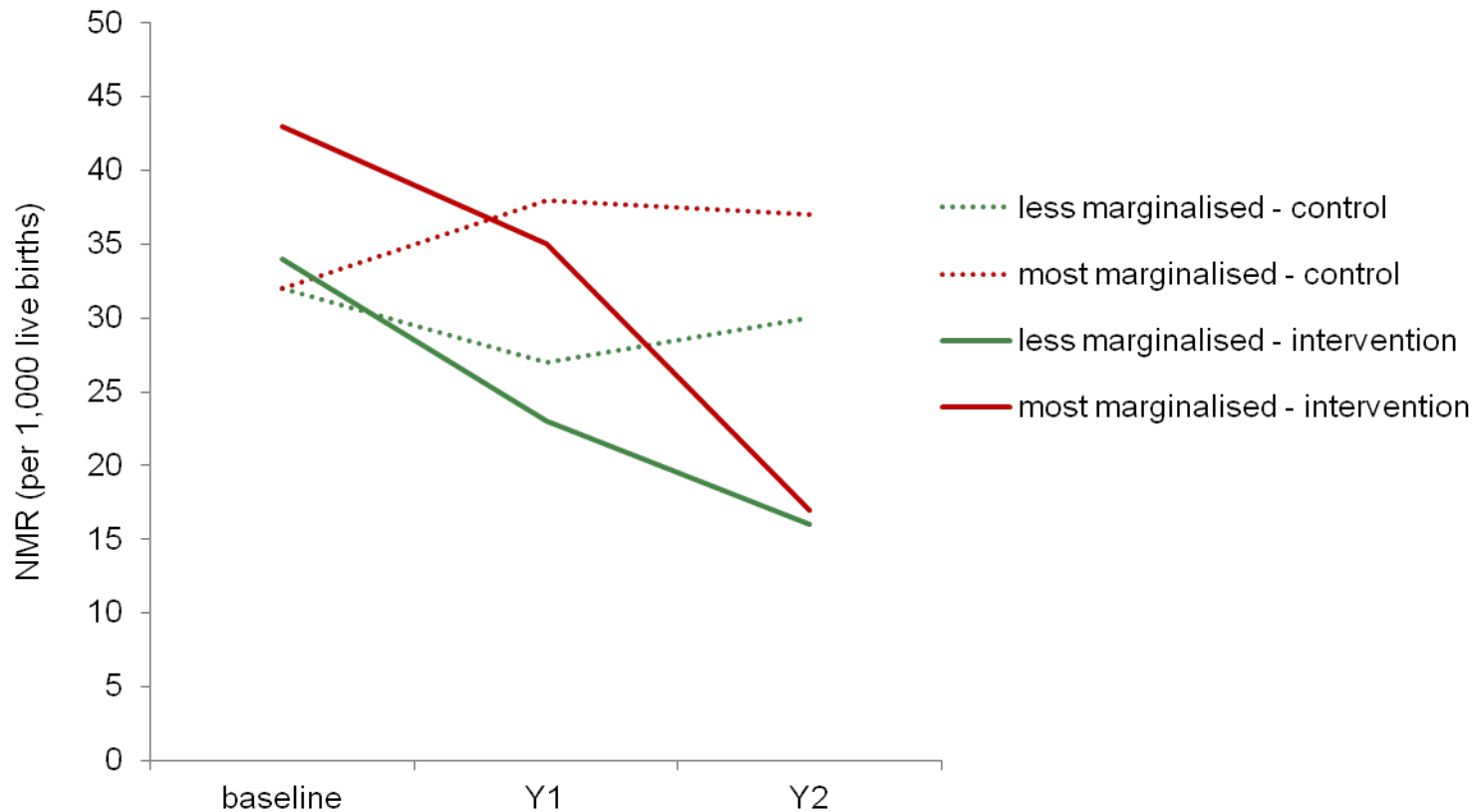
### Intervention effect (OR (95%CI))

- Most marginalised: 0.32 (0.20; 0.51)

- Less marginalised: 0.82 (0.48; 1.41)

*p-value for difference = 0.0099*

# Findings: impact on NMR Bangladesh (PCP)



## Intervention effect (OR (95%CI))

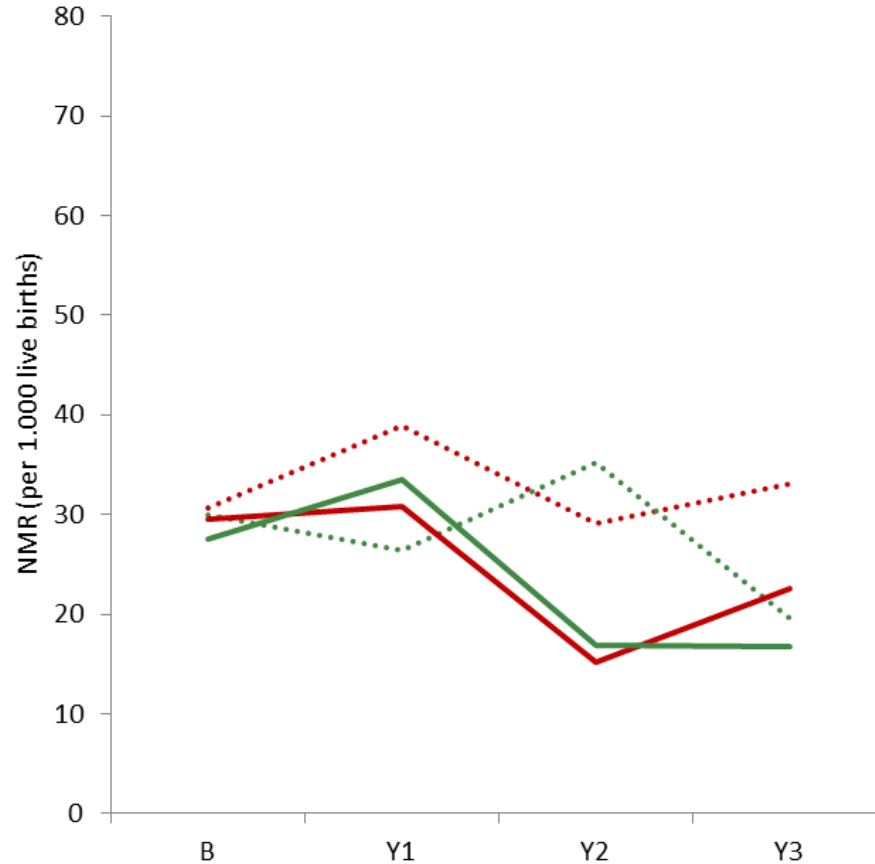
- Most marginalised: 0.33 (0.14; 0.76)

- Less marginalised: 0.49 (0.32; 0.73)

*p-value for difference = 0.413*



# Findings: impact on NMR Malawi (Maimwana)



## Intervention effect (OR (95%CI))

- Most marginalised: 0.61 (0.30; 1.26)

- Less marginalised: 0.63 (0.39; 1.01)

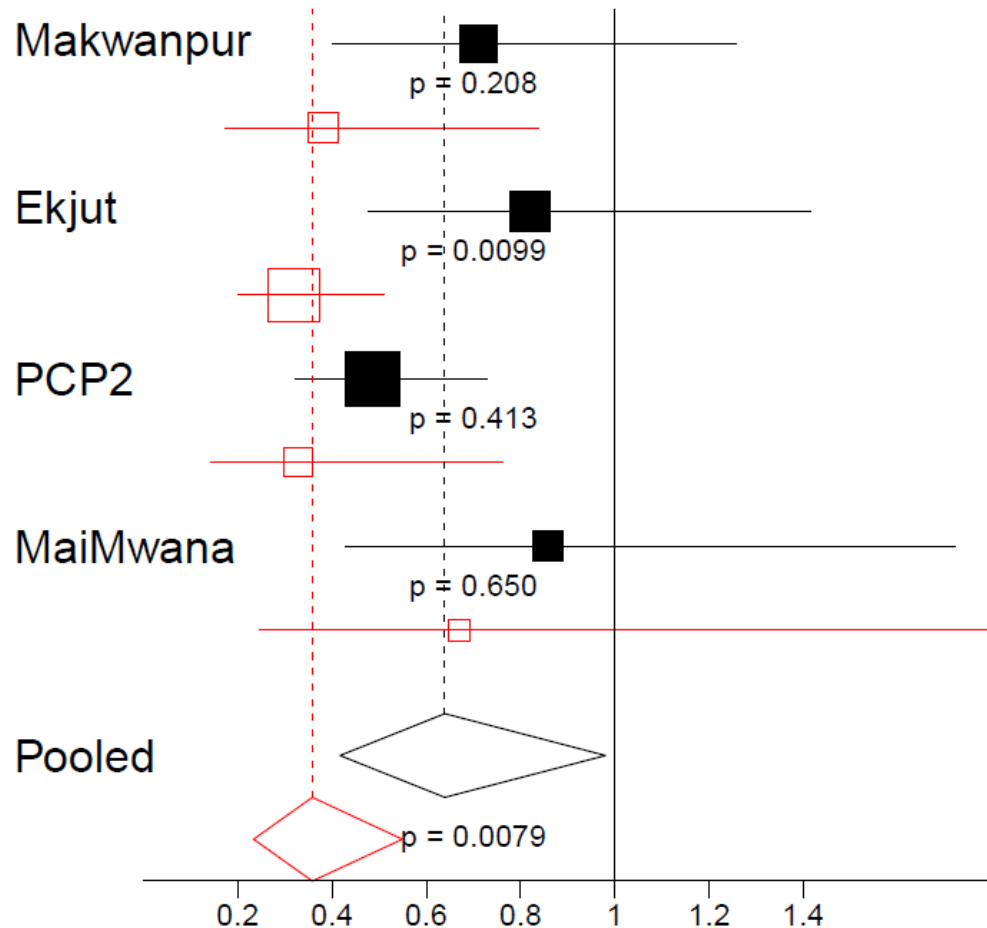
*p-value for difference = 0.94*



# Equity impact - 4 trials summary, last trial year

EquiNaM

building evidence to support equitable improvement  
in newborn and maternal health



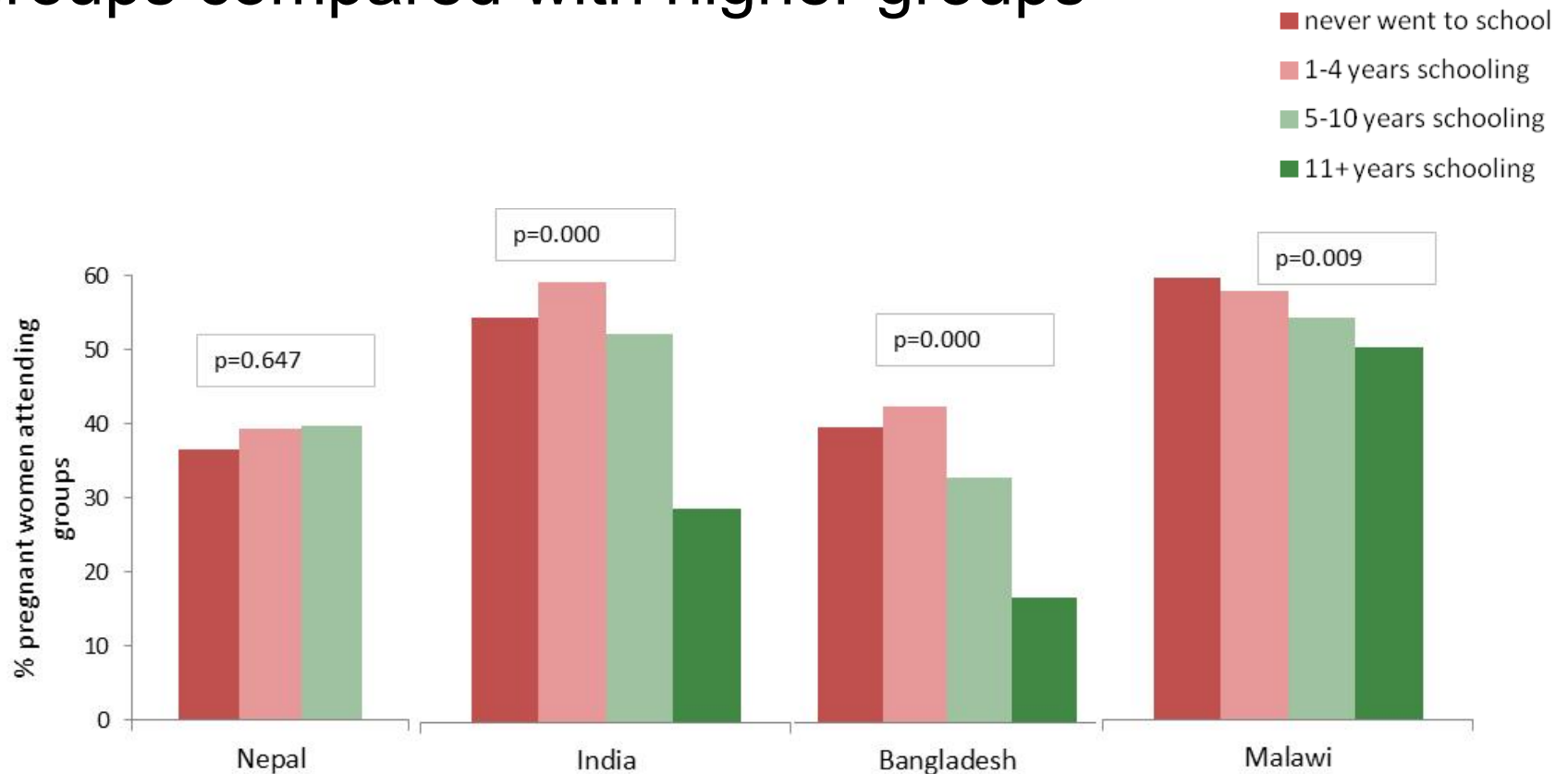
■ less marginalised  
□ most marginalised

# Findings: impact on behaviors

- strong improvements in home care practices among **both** low and high SEP groups, except Malawi
- no effects on health care use, except in Makwanpur
- no systematic **differences** in behavioral effects between low and high SEP groups

# Women's group attendance

Similar or higher among lower socio-economic groups compared with higher groups



## *Why were behavioral impacts roughly similar ?*

- Facilitators & group members approached families of all socio-economic groups, although more focus on marginalised
- Poor women: less access to resources & information – it was felt the women's groups therefore benefit them in particular
- Practices and taboos were similar among better off & poorer families - important to work with both

## *Why also effects among non-attenders?*

- Non-attenders from all socio-economic strata were visited and talked to by women's group members & facilitators

# Conclusions

- Hart's inverse care law?  
Not for women's groups!
- Women's groups can address the exclusion of poor & otherwise vulnerable groups from health interventions
- Local facilitators, tools & meeting place: key to equitable intervention reach

# Conclusions

- As strong or stronger mortality effect among lower socio-economic groups
- Perhaps similar behavioral improvements had stronger mortality effect among most vulnerable

Participatory interventions with women's groups can contribute to an **equitable reduction in neonatal mortality**

# More information:

<http://equinam.global-health-inequalities.info>

Special Thanks to TANJA HOUWELING

Thanks to teams at

