

# Grandmothers and Public Health:

unlocking the potential of older women in  
improving child, adolescent and maternal  
health

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# Why grandmothers?



Research programme: do grandmothers influence the health, wellbeing and fertility of their family members?

# Grandmothers are associated with higher survival of grandchildren



From: [Sear, R et al \(2000\). 'Maternal Grandmothers Improve the Nutritional Status and Survival of Children in Rural Gambia', Proc Roy Soc B 267: 461–67](#)

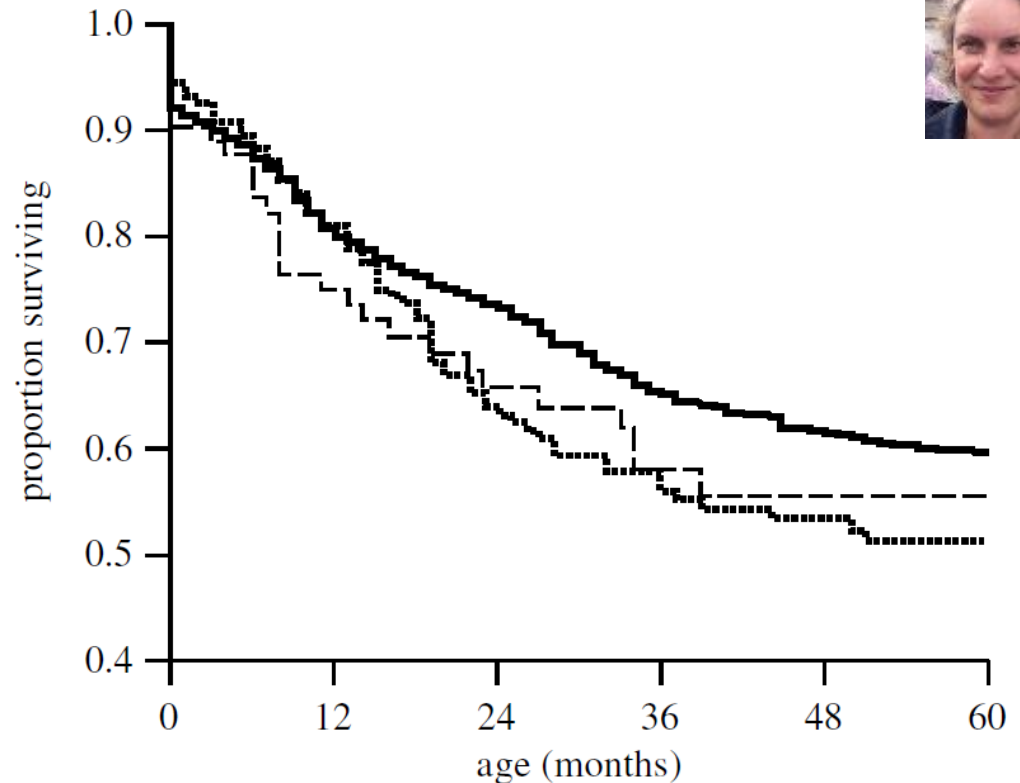


Figure 2. Kaplan–Meier plot showing survival of children whose maternal grandmothers died before their birth (dotted line) compared with those whose maternal grandmothers were alive at their birth and still reproductively active (dashed line) and those whose grandmothers were alive at their birth and non-reproductive (solid line).

# Did menopause evolve to create helpful grandmothers?



**Darren Croft**  
@DarrenPCroft

Following

Killer whales have more in common with your grandmother than you may think



## What Killer Whales Have in Common with Your Grandma! | EWC

Killer whales have more in common with your grandmother than you may think. Unfortunately, we are at risk of losing these wise elders if we don't act soon!

[evenwideningcircles.com](http://evenwideningcircles.com)

The Atlantic

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## SCIENCE

### Why Killer Whales (and Humans) Go Through Menopause

They're the only animals, besides short-finned pilot whales, that do so.

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A female killer whale and her newborn calf (REUTERS)

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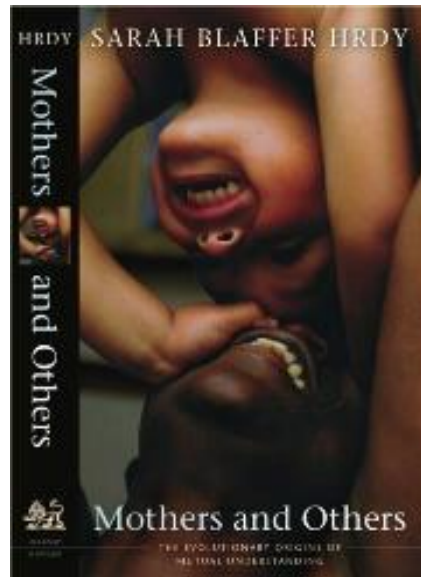
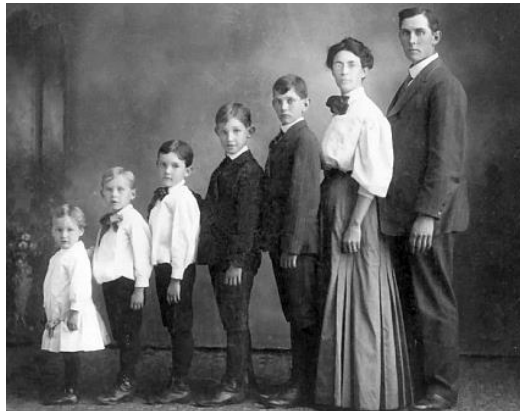
Another Bat-Winged  
Dinosaur Has Been  
Found

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# Reproduction is cooperative in our species

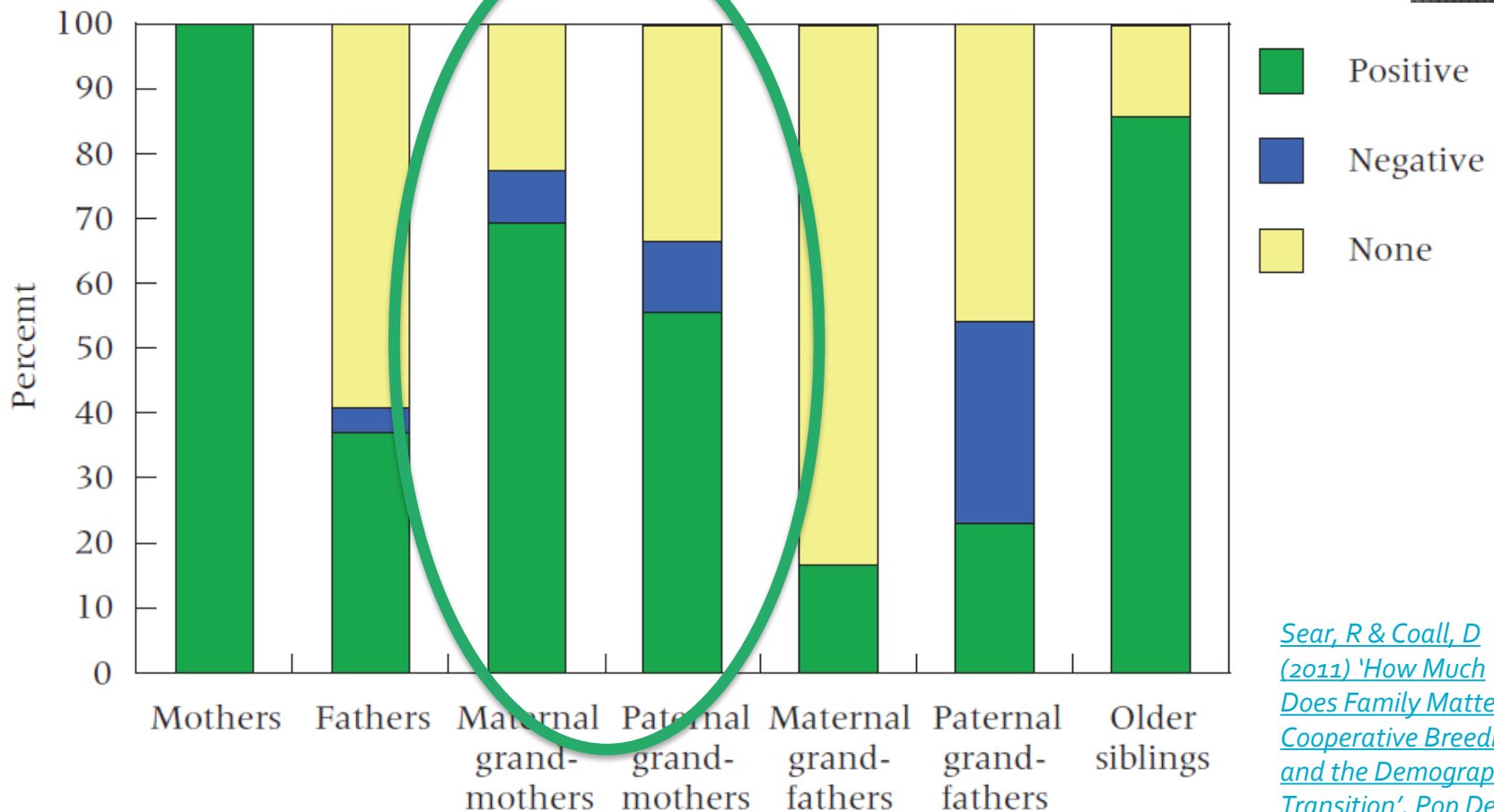
Hypothesis: mothers need help  
to successfully raise children



# Cross-culturally grandmothers are often associated with higher grandchild survival



*Percentage of studies in which availability of family member was associated with child survival*



*Sear, R & Coall, D (2011) 'How Much Does Family Matter? Cooperative Breeding and the Demographic Transition', Pop Dev Rev, 37 s1: 81-112*

# Anthropological studies indicate the importance of grandmothers

For example:

- They give advice about infant feeding & child birth
- Actively help mothers with child care
- As well as heavy domestic tasks

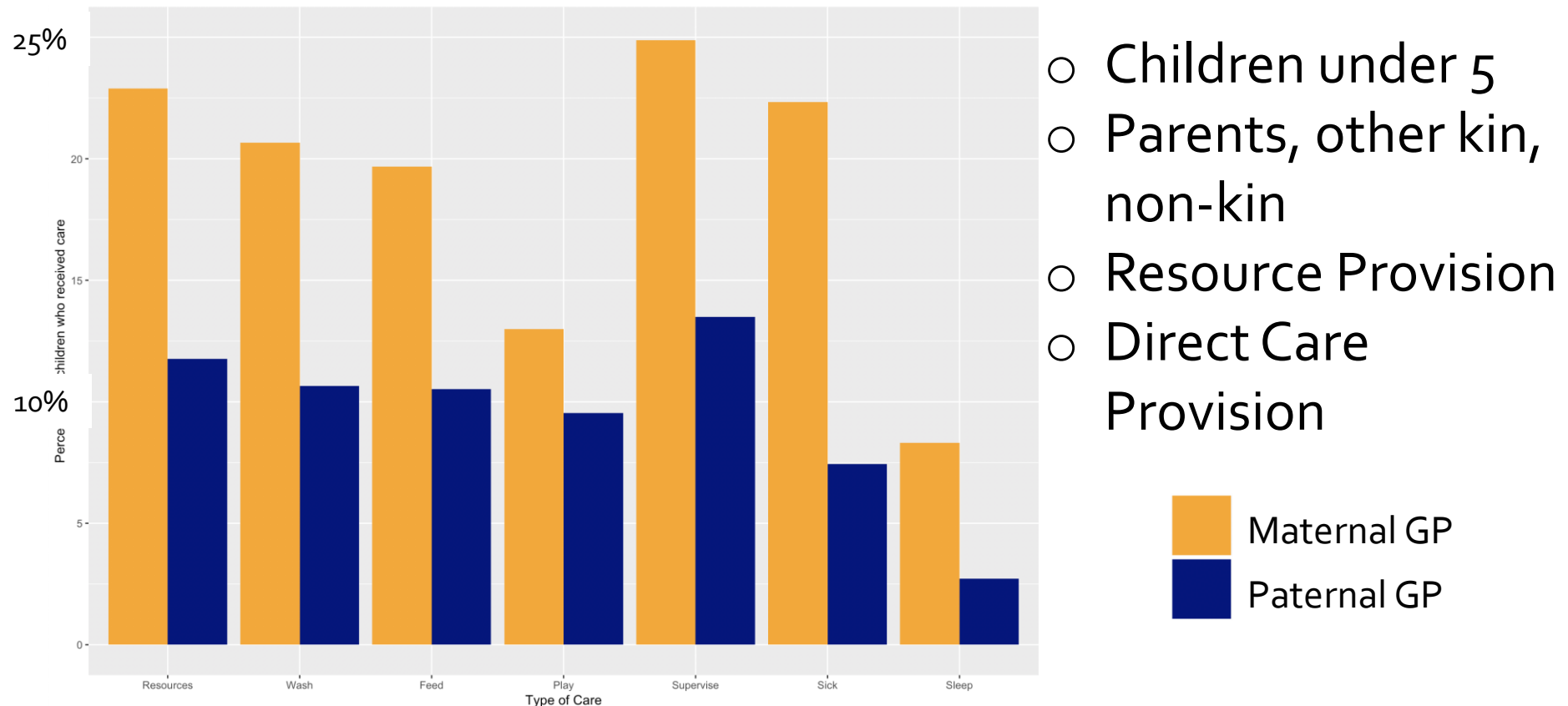
Time allocation data among the Oromo in Ethiopia – Gibson & Mace, 2005



# How does the external family help?

## Detailed data collected in two Sukuma communities Mwanza Region, Tanzania

Percentage of children who received care from grandparents by care type





# Preliminary findings & future work



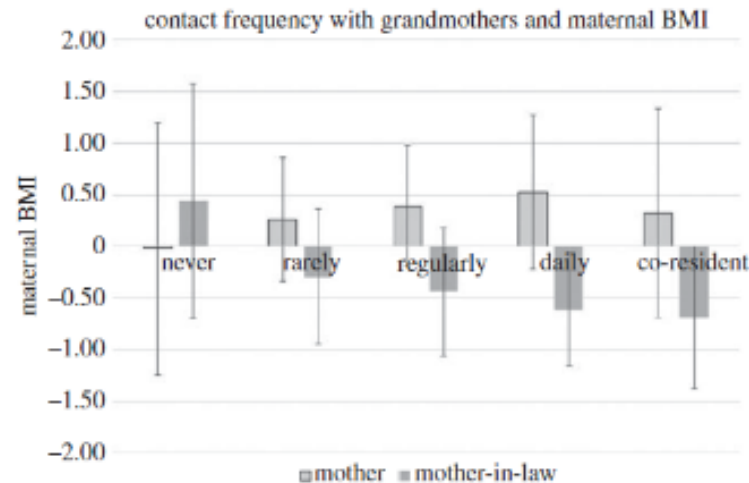
Infant anthropometric measurements



Mother washing her baby

- More maternal kin helping in the town, more paternal kin in the village
- More non-kin helping in the town, more kin in the village
- Impact on health?

# Grandmothers may also improve maternal health – though evidence for this is not conclusive



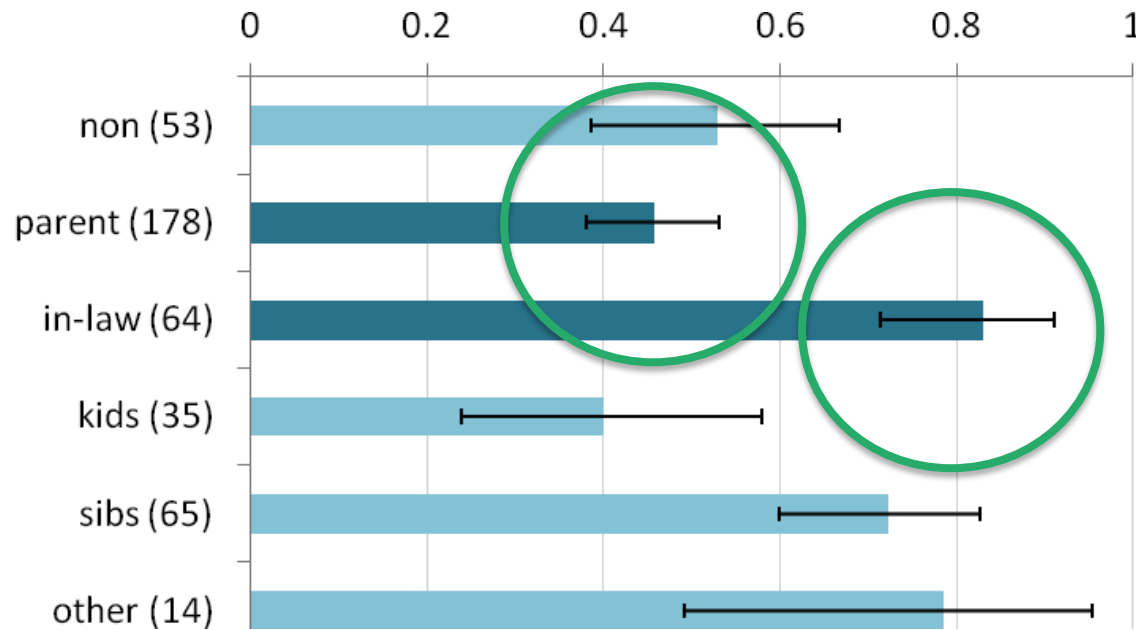
**Figure 3.** Maternal BMI scores for each level of contact with grandmothers, adjusted for age, education, ethnicity, husband absence and department.

In Guatemala, maternal BMI is slightly higher if woman's own mother is still living

[Sheppard, P & Sear, R. \(2016\). 'Do Grandparents Compete with or Support Their Grandchildren?'. Royal Society Open Science, 3.4](#)

# The presence of parents-in-law tends to be positively associated with women's fertility

Proportion of all studies which find pro-natal associations between kin availability and fertility: all fertility outcomes included (age at first birth, length of birth intervals, total number of children)



# Conclusion: grandmothers matter

This is not  
the  
traditional  
family





# Interdisciplinary initiatives needed to unlock the potential of older women

- Grandmothers matter in many and varied ways
- Need interdisciplinary research to understand
  - role of grandmas in particular context
  - how their potential might be unlocked to improve maternal, child and adolescent health
  - how interventions might be designed to include grandmothers

