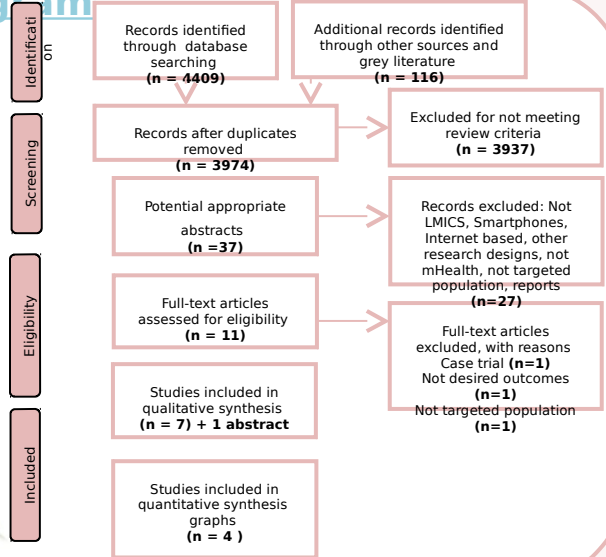


## Background

- The share of all stunted children that live in low-income and lower-middle-income countries has shifted from **7 in 10 to 9 in 10** between 1990 and 2014. (Unicef, 2015)
- Between 1990 to 2014, the number of stunted children increased by **23% in Africa** and **67% in Oceania** (Unicef, 2015)
- Underweight is common among women of reproductive age, especially in Africa and South Asia, where prevalence estimates of under nutrition are as high as 27--51%. (Who, 2015)
- One of the sustainable development goals includes ending all forms of malnutrition by 2030.

## Research method: PRISMA flow diagram



- The number of mobile subscriptions in low and middle income countries is more than 1 billion in 2012 (World Bank, 2012)

2.5 Billion mobile subscribers in LMIC

44% are women

Source: GSMA, 2015



## Study Design: PICO

**The population**  
Women of childbearing age  
Pregnant Women  
Newborn, children younger than 5 years old

Study Sample N : 3242

Intervention group SMS/Voice calls N : 1279

Control group No SMS/Voice calls N : 1210

**The interventions**  
Comparison of groups with or without the use of mobile phone (SMS, voicemails)  
-Excluding N: 753 from Kenya study abstract

Follow up 2 months to 12 months

**Outcomes**  
Breast feeding, Knowledge, Attitudes and Practices scores  
Hemoglobin Levels  
Urinary iodine concentration  
Salt iodine content.

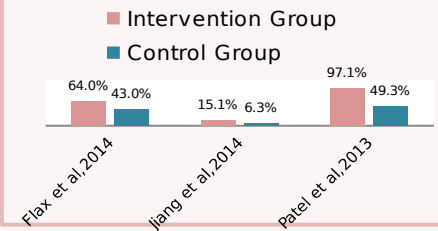
**The outcomes**  
Improved nutritional status

**Estimate of effect:**  
Significant impact on EBF before 6 months  
Improvement in Knowledge and Attitudes but not necessarily practice  
Increase in compliance to nutrient supplementation but no significant effect on hemoglobin levels

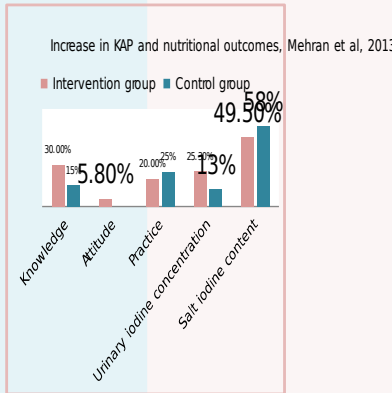
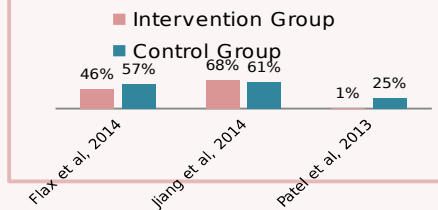
**The effects**  
Do mobile phone interventions have a significant impact?

## Results

### Rate of exclusive breastfeeding at 6 months



### Rate of Initiation of solid foods before 6 months



## Discussion

- Significant positive effects of mobile based interventions on exclusive breastfeeding but mixed results on other feeding practices such as the introduction of solid foods before 6 months.
- Lack of robust evidence (more RCT needed) of the effects on other nutritional indicators in LMIC. ( e.g. birth weight, children anthropometry) and few studies in Sub-Saharan Africa (only 2 out of 8 studies)
- SMS are more effective than voice reminders or calls.
- Further evidence of mobile based interventions on nutritional outcomes of children ( from 6mo to 24mo) is needed.