

USING EVIDENCE TO INFORM CHILD HEALTH POLICIES: FINDINGS FROM A COCHRANE REVIEW ON INTERVENTIONS TO INCREASE CHILD VACCINATION UPTAKE

COCHRANE PEOPLE, HEALTH SYSTEMS AND PUBLIC HEALTH THEMATIC GROUP LAUNCH

ANGELA OYO-ITA

DEPARTMENT OF COMMUNITY MEDICINE

UNIVERSITY OF CALABAR, NIGERIA

BACKGROUND

- Burden of under 5 deaths
 - Of the 5.3M children who died in 2018, 99% were from LMICs and 700,000 died of vaccine preventable diseases. (Frenkel, 2021)
 - Getting children immunised remains a challenge particularly in LMICs despite the availability of efficacious vaccines
 - 62% of the 19.9M unvaccinated children live in 10 LMICs (Ali et al, 2022)
 - Best scientific evidence about what interventions work is needed to integrate the evidence into the national health systems (Lewin, 2008)

REVIEW OBJECTIVE AND OUTCOMES

- Objective: to evaluate the effectiveness of intervention strategies to boost demand and supply of childhood vaccines and sustain high childhood immunisation coverage in LMICs
- Primary outcomes:
 - Proportion of children who received DTP3 by one year of age
 - Proportion of children who received all recommended vaccines by 2 years of age

THE REVIEW PROCESS

- Types of studies:
 - RCTs, nRCTS
- Types of participants:
 - Children under 5 years of age, caregivers, care providers, health system
- Types of interventions:
 - Recipient oriented, provider oriented, health system oriented, community oriented, or a combination of any
- Search methods:
 - Electronic databases, trial registries, reference list of relevant reviews

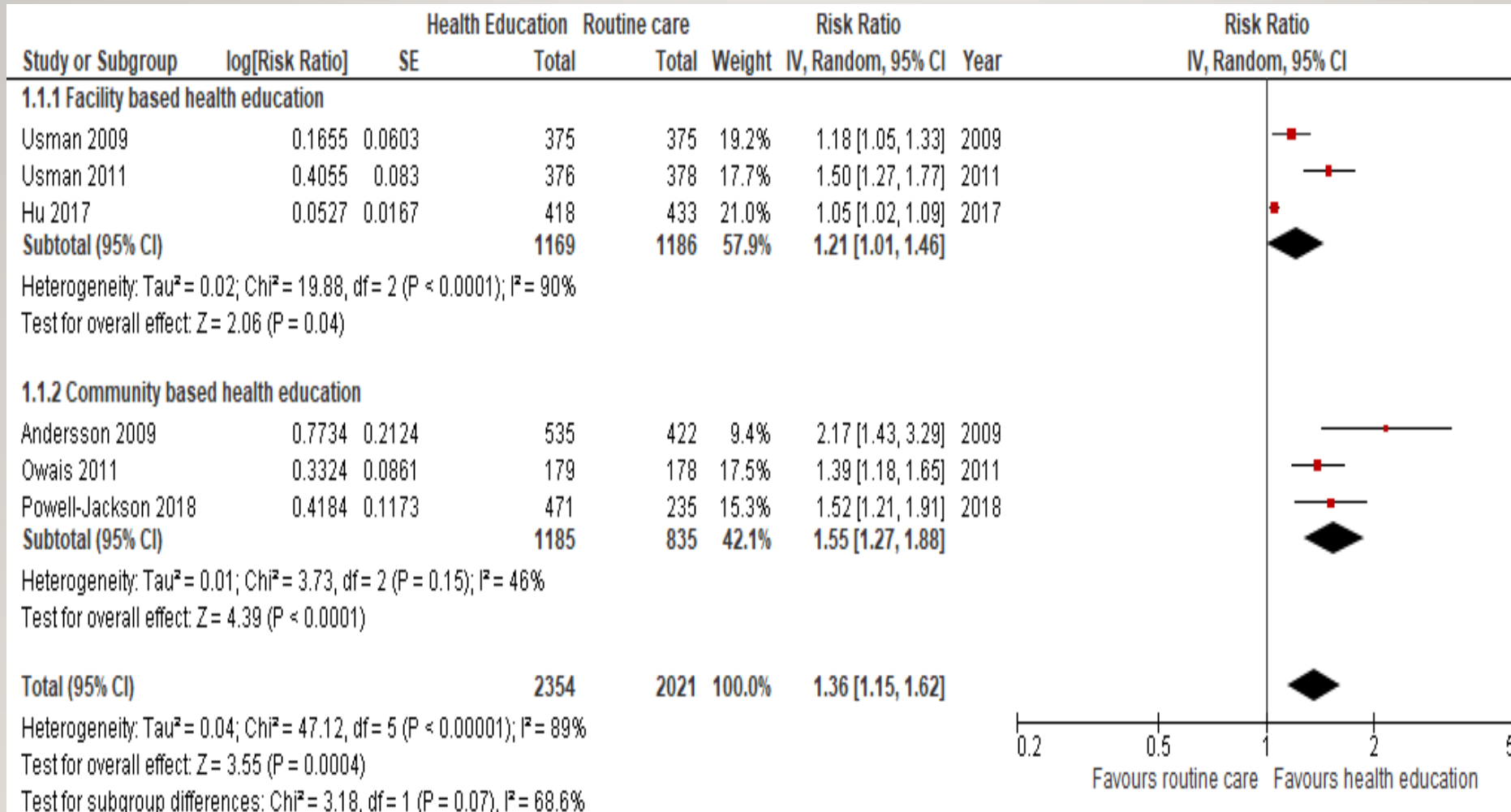
INTERVENTIONS STUDIED

- 11 types of interventions as stand alone or in combination were identified
 - Recipient oriented
 - Health education (n = 8 studies), monetary incentives (4), patient reminder: Home Based Record (3), phone call/sms (8), wearable reminders (2)
 - Health system oriented
 - Digital register (2), home visit(1), immunization outreach (3), integration with other services (1), pay for performance funding (2)
 - Health provider oriented
 - Training of health providers on: IPC (1), supportive supervision (2)
 - Multi-faceted
 - A combination of any of the interventions above (8)

WHAT WORKS

- Interventions that probably increase vaccination uptake
 - Immunisation outreach (full vaccination of u5s) (RR 3.09; 95% CI: 2.11 to 4.53); participants = 1239; studies = 1)
 - Immunization outreach + non-monetary incentives (RR 6.66, 95% CI 4.78 to 9.28; participants = 1242; studies = 1)
 - Involvement of community leaders + training of health provider on adverse events following immunisation (RR 1.37, 95% CI 1.11 to 1.69; participants = 2020; studies = 1)
- Interventions that may improve vaccination uptake
 - Health education (RR 1.36, 95% CI 1.15 to 1.62; participants = 4375; studies = 6)
 - Home based record (RR 1.36, 95% CI 1.06 to 1.75; participants = 4019; studies = 3)

HEALTH EDUCATION COMPARED WITH ROUTINE CARE FOR IMPROVED CHILDHOOD VACCINE UPTAKE



WHAT HAVE LITTLE OR NO EFFECT

- Interventions that may have little or no effect on vaccination uptake
 - Wearable reminders (RR 1.02, 95% CI 0.97 to 1.07; participants = 1567; studies 2)
 - Phone call/SMS (RR 1.06; 95% CI: 0.99 to 1.12; participants = 10414; studies = 5)
- Intervention that probably has no effect on vaccination uptake
 - Digital register (RR 0.98, 95% CI 0.89 to 1.09; participants = 328; studies = 2)
- Interventions with uncertain effect
 - Training of health providers on supervisory visit and IPC – (studies = 3)
 - Home visit (RR: 1.29; 95% CI 1.15 to 1.45; participants = 419, study = 1)
 - Pay for performance funding – (studies = 2)
 - Monetary incentives to caregivers – (studies = 4)

SUMMARY/CONCLUSION

- Interventions to improve childhood vaccine uptake in LMICs:
 - Immunization outreach with or without non-monetary incentive
 - Involvement of community leaders + training of health worker on AEFI
 - Health Education
 - Home based record
- Levels of impact varied between interventions
- Certainty of evidence also varied across interventions
 - No study was of low risk of bias
 - 3 interventions were of moderate certainty of evidence
- Rigorous studies of low risk of bias are needed to strengthen the evidence base

THANK YOU!



REFERENCES

- Frenkel, L 2021. The global burden of vaccine-preventable infectious diseases in children less than 5 years of age: implications for Covid-19 vaccination. How can we do better? *Allergy Asthma Proc* 42:378–385, 2021; doi: 10.2500/aap.2021.42.210065)
- Ali HA et al, 2022. Vaccine equity in LMICs, a systematic review and meta analysis. *International Journal for Equity in Health*, 21 (82).
- Lewin S, Lavis JN, Oxman AD, Bastías G, Chopra M, Ciapponi A, et al. Supporting the delivery of cost-effective interventions in primary health-care systems in low-income and middle-income countries: an overview of systematic reviews. *Lancet* 2008;372:928-39.