Evidence Update

Health Sector Development Series

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Do lay health workers improve healthcare delivery and healthcare outcomes?

Trials in immunization uptake and treating acute respiratory infections and malaria in children suggest benefit; evidence in other areas is limited.

Inclusion criteria

Studies:

Randomized controlled trials.

Participants:

Any lay health worker (individual carrying out healthcare delivery and trained for the particular task, without formal professional or paraprofessional tertiary education).

Consumers against which the outcomes are evaluated: any recipient of primary or community health care.

Intervention:

Any intervention delivered by lay health workers and intended to promote health, manage illness, or support people.

Outcomes:

Utilization of lay health worker services; consultation processes; consumer satisfaction with care; healthcare behaviour; healthcare outcomes; cost; social development measures.

Results

- 43 trials included, involving more than 210,000 consumers. Allocation concealment was adequate in 32 trials
- Most trials were conducted in high-income countries; the interventions, outcomes and context were highly varied.
- Compared with usual care, lay health worker interventions effectively promoted immunization uptake in both children and adults (relative risk 1.30, 95% confidence interval 1.14 to 1.48; 3 trials).
- Compared with usual care, lay health worker interventions reduced mortality for selected infectious diseases (acute respiratory infection and malaria) in children (relative risk 0.69, 95% confidence interval 0.51 to 0.94; 2 trials).
- Other trials examined programmes promoting breast cancer screening, promoting breast feeding, treating hypertension, providing home service aides for the elderly, supporting recovering alcoholics, and supporting mothers of sick children. The effectiveness of lay health interventions compared with usual care for these health problems are not clear.







Adapted from Lewin SA, Dick J, Pond P, Zwarenstein M, Aja G, van Wyk B, et al. Lay health workers in primary and community health care. *Cochrane Database of Systematic Reviews*. Art. No.: CD004015. DOI: 10.1002/14651858.CD004015.pub2.

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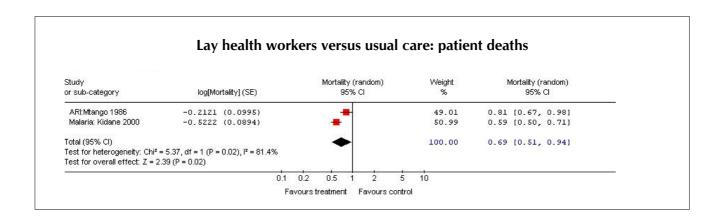
Lay health worker intervention versus usual care: immunization uptake log [Adjusted RR] (SE) Adjusted RR (Random) Adjusted RR (Random) 95% CI Study 01 Children Barnes 1999 0.19 (0.22) 9.5 1.21 [0.79, 1.86] 0.27 (0.15) Johnson 1993 19.1 1.31 [0.97, 1.78] Subtotal (95% CI) 28.6 1.28 [1.00, 1.64] Test for heterogeneity chi-square=0.09 df=1 p=0.77 l==0.0% Test for overall effect z=1.94 p=0.05 02 Adults Krieger 2000 1.31 [1.12, 1.53] 0.27 (0.08) 71.4 Subtotal (95% CI) 1.31 [1.12, 1.53] 71.4 Test for heterogeneity: not applicable Test for overall effect z=3.35 p=0.0008 Total (95 $^{\circ}$ CI) Test for heterogeneity chi-square=0.11 df=2 p=0.95 l³=0.0 $^{\circ}$ Test for overall effect z=3.87 $\,$ p=0.0001 100.0 1.30 [1.14, 1.48]

.1 0.2 0 Favours control

0.5

10

Favours treatment



Authors' conclusions

Implications for practice:

Lay health worker interventions show promise in promoting immunization uptake and for improving outcomes for selected infectious diseases in children, compared with usual care.

Implications for research:

Well-designed trials are needed to further evaluate the effectiveness of lay health worker interventions. A typology of lay health worker interventions needs to be developed.