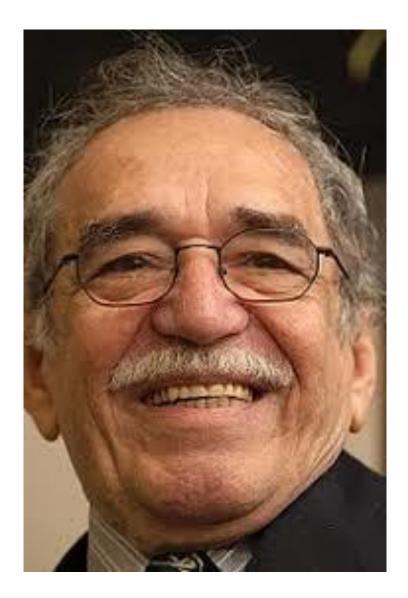
XII International Conference on KMC

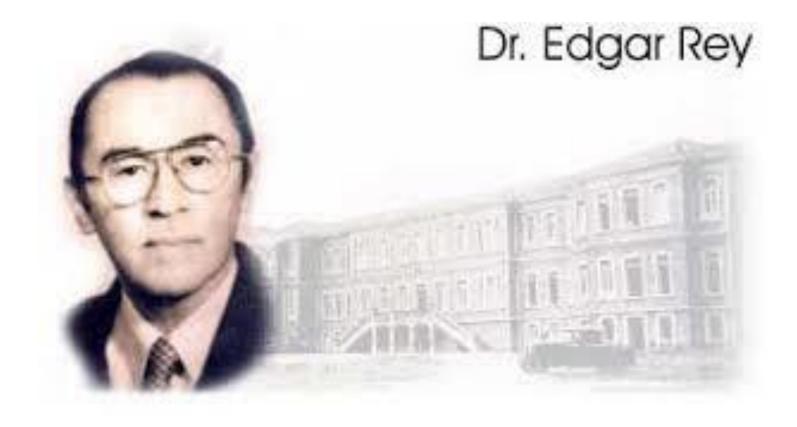
Bogotá, Colombia. November 15-17, 2018

Update on currently available synthesis of on KMC research.

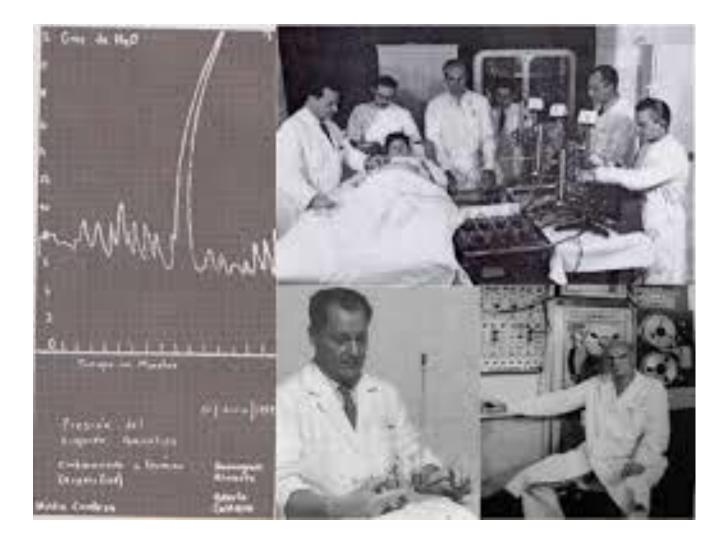
José M Belizán. Institute for Clinical Effectiveness, Buenos Aires, Argentina Email: <u>belizanj@gmail.com</u>

Collaboration Allison Voorhees, Tulane University













Cochrane Database of Systematic Reviews

Kangaroo mother care to reduce morbidity and mortality in low birthweight infants

August 2016

Agustin Conde-Agudelo and José L Díaz-Rossello

Systematic review of 22 randomized controlled trials including 3042 infants

Kangaroo mother care (KMC) and conventional neonatal care

- reduction in mortality at discharge or at 40 to 41 weeks' postmenstrual age and at latest follow-up, RR= 0.60(0.39 - 0.92; eight trials, 1736 infants)
- severe infection/sepsis, RR 0.50, 95% CI 0.36 to 0.69; eight trials, 1463 infants
- hypothermia, (RR 0.28, 95% Cl 0.16 to 0.49; nine trials, 989 infants
- increase in weight gain
- exclusive or any breastfeeding at discharge and at one to 3 months' follow-up
- risk of nosocomial infection/sepsis at discharge
- increases the gain in length and head circumference
- maternal satisfaction with the method
- maternal-infant attachment.

Early-onset KMC versus late-onset KMC in relatively stable infants

One trial, n=73, No differences, only a reduction in length of hospital stay (MD 0.9 days, 95% CI 0.6 to 1.2).

High income countries

Mortality at latest follow-up Two studies, 131 participants RR=1.25 (0.29-5.42)

Implications for research

- Effectiveness of early-onset continuous KMC in unstabilized or relatively stabilized
- Use of continuous or intermittent KMC in high-income settings and to report results mainly on infant morbidity.
- Long term follow up on long-term neurodevelopmental and neurosensory outcomes.).
- Effects of early-onset KMC on breastfeeding.
- Economic evaluations to assess the cost-effectiveness of KMC in low-, middle-, and high-income settings.
- Exploration of mother-infant attachment should be pursued in future trials, as this element has been inconsistently evaluated across studies.
- Additional trials in different settings on community-based



"We face a formidable gap between innovations in health (including vaccines, drugs, and strategies for care) and their delivery to communities in the developing world."

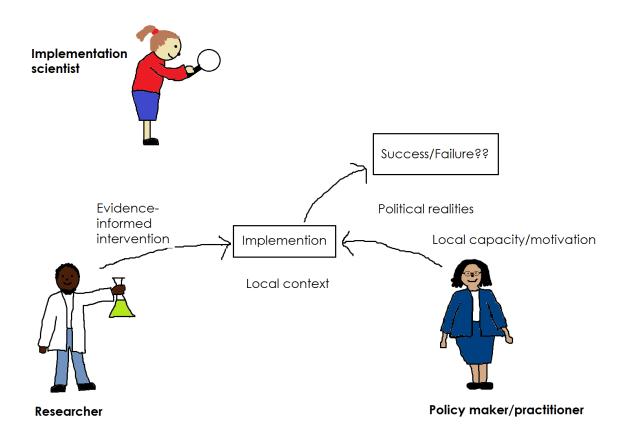
PUBLIC HEALTH

Implementation Science

Temina Madon, Karen J. Hofman,* Linda Kupfer, Roger I. Glass

- Research to optimize scientific advances & facilitate their adoption in the real world
- The challenge: the "know-do" gap between scientific discoveries and their delivery to communities in need
- Implementation science will help determine scientifically tested strategies that will work





Provision of medical supply kits to improve quality of antenatal care in Mozambique: a stepped-wedge cluster randomised trial.

Betrán AP, **Bergel E**, et al Lancet Global Health, January, 2018

Steps (2-month periods)												
Clinics	1	2	3	4	5	6	7	8	9	10	11	Total
1	1886	1280	1041	1249	1208	1336	1223	1181	945	1179	1340	13868
2	3653	2150	2250	2504	2846	2701	2604	2390	2204	2580	2404	28286
3	1360	769	830	664	799	930	872	803	765	731	768	9291
4	3138	2063	2055	1859	1683	2061	2227	2392	1888	1617	1841	22824
5	2775	1928	968	2258	2070	2015	2482	2366	2214	2034	2224	23334
6	2524	1624	1445	1602	1803	1772	1663	1595	1504	1569	1613	18714
7	1516	1293	1321	1310	1382	1476	1406	1343	1265	1357	1378	15047
8	3511	2307	1798	2179	2459	2693	2618	2593	2347	2220	2275	27000
9	2977	1816	1823	1529	1691	1728	1984	2006	1895	1535	1711	20695
10	3148	3634	2569	2730	3638	3652	3974	3983	3772	3941	4177	39218
Total	26488	18864	16100	17884	19579	20364	21053	20652	18799	18763	19731	218277

Stepped-wedge cluster randomised trial

Control study period Intervention study period

Steps (2-month periods)	Steps (2-month periods)	Steps (2-month periods)				
1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 11	1 2 3 4 5 6 7 8 9 10 🚺				
A Screening for anaemia (n=68598)	B Screening for proteinuria (n=68598)	C Treatment for worms (n=63136)				
1 0 97 100 100 100 100 100 99 99 98 98 2 0 0 97 99 100 94 100 100 97 100 100 3 100 100 100 100 100 100 97 100 100 4 16 15 22 17 99 97 98 100 10	0 99 87 100 98 100 100 100 99 90 91 93 100 100 97 100 <t< td=""><td>53 90 94 98 98 97 98 99 99 98 97 53 81 91 96 88 98 97 98 93 96 92 69 84 90 96 84 97 77 82 82 83 77 0 4 18 6 80 67 69 69 67 65 73 74 77 97 91 88 97 96 96 95 92 93 74 69 89 85 85 92 91 81 90 81 88 3 57 78 61 78 83 97 92 95 94 90 60 1 15 20 33 48 31 41 74 81 77 21 53 98 92 97 99 95 97 98 97 98 41 0 30 67</td></t<>	53 90 94 98 98 97 98 99 99 98 97 53 81 91 96 88 98 97 98 93 96 92 69 84 90 96 84 97 77 82 82 83 77 0 4 18 6 80 67 69 69 67 65 73 74 77 97 91 88 97 96 96 95 92 93 74 69 89 85 85 92 91 81 90 81 88 3 57 78 61 78 83 97 92 95 94 90 60 1 15 20 33 48 31 41 74 81 77 21 53 98 92 97 99 95 97 98 97 98 41 0 30 67				
D Screening for high blood pressure (n=68598)	E Treatment for malaria (n=35194)	F Screening for HIV (n=63714)				
1 47 100 100 100 95 99 100 99 100 98 100 2 0 2 96 100 100 100 97 100 93 100 100 3 100	50 95 94 98 94 97 95 99 96 98 96 64 59 81 95 93 94 93 94 93 97 99 85 85 94 92 91 94 96 95 99 99 99 88 75 95 95 96 93 97 95 94 94 96 14 26 61 69 56 73 82 85 92 94 19 22 57 80 66 95 86 88 85 76 94 54 62 79 63 88 89 96 96 98 98 97 37 30 46 55 51 63 55 44 86 92 95 41 74 65 67 26 91 93 94 97 94 91 71 0 57 78 89	91 92 96 98 95 99 99 98 96 99 84 89 98 94 70 94 94 99 90 90 98 98 98 98 98 98 98 98 99 99 99 99 90 <t< td=""></t<>				
G Treatment for HIV (n=4475)	H Screening for syphilis (n=68598)	Treatment for syphilis (n=1913)*				
1 83 50 80 83 78 100 100 80 100 80 33 2 86 89 92 80 91 95 93 88 84 97 93 3 86 80 33 80 100 100 86 100 100 80 4 66 61 50 79 93 89 80 76 84 76 43 5 99 98 97 97 99 100 97 99 97 97 96 6 95 91 97 96 100 100 97 91 100 97 97 7 95 97 100 100 100 98 97 97 94 96 100 8 85 93 82 90 94 92 91 88 90 63 69 99 95 98 98 100 98 97 100 96 1	55 94 98 100 98 96 97 100 100 93 97 26 66 97 98 91 99 100 96 92 91 95 78 95 97 50 96 74 92 97 98 86 100 59 90 98 94 99 99 96 96 100 98 100 69 27 58 98 80 100 99 92 99 100 100 98 100 69 27 58 98 80 100 99 92 99 100 100 2 24 92 84 95 99 98 97 98 99 99 9 71 91 99 90 98 66 99 97 99 99 9 75 100 63 30 32 63 99 90 100 28 63	0 97 84 90 100 94 98 100 97 100 97 75 42 100 100 100 100 80 67 100 50 100 40 0 25 50 40 100 100 100 100 100 50 75 0 37 100 95 94 84 100 75 100 95 100 21 0 0 94 93 100 100 91 100 95 100 21 0 0 94 93 100 100 91 100 100 95 100 60 56 30 50 50 67 86 80 89 0 50 50 100 75 33 50 0 100 100 100 71 77 72 70 49				

Simple Interrupted Time Series Design

$$O_1$$
 O_2 O_3 O_4 X O_5 O_6 O_7 O_8

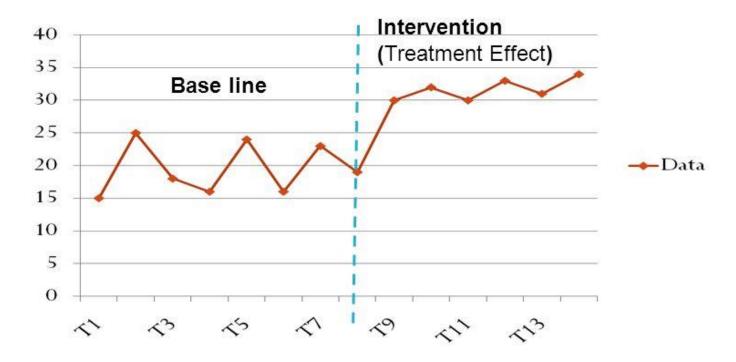


Figure 9 Simple Interrupted Time Series Design

Implications for research

- Implementation research to accelerate the development and delivery of KMC. (barriers, facilitators)
- KMC in sites with home deliveries.
- KMC in term infants.
- KMC and pain relief in neonates
- Maternal satisfaction including maternal depression
- Effectiveness of early-onset continuous KMC in unstabilized or relatively stabilized
- Use of continuous or intermittent KMC in high-income settings and to report results mainly on infant morbidity.
- Long term follow up on long-term neurodevelopmental and neurosensory outcomes.).
- Effects of early-onset KMC on breastfeeding.
- Economic evaluations
- Exploration of mother-infant attachment should be pursued in future trials, as this

Conclusions, discussion, thoughts?

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