BACKGROUND

The Millennium Development Goals (MDG), written by the United Nations in 2000, highlighted 8 key areas requiring global initiatives to meet the needs of the world’s poorest. Goals 2 (achieve universal primary education) and 5 (improve maternal health and empower women) can be simultaneously improved by increasing girls’ access to education. Separately, a study of a million women died annually from pregnancy-related conditions. Yet 76% of them are avoidable, as such initiatives have been introduced they compared the percentage of infants with each that had been retrieved by the new transport service and those that haven’t.

CASE STUDY: Neonatal Transport Service, Sri Lanka

It is widely accepted that time is a critical factor in maternal and neonatal mortality, leading to numerous global initiatives to improve transport service. The Neonatal Retrieval Service© established by Dr Gupta and his team in Sri Lanka managed to drastically lower the number of infants arriving with hypothermia or hypoglycaemia by using high performance transport. After the scheme was introduced they compared the number of livebirths with that by changing the speed of the new transport service and that those that hadn’t (Fig4). After such success, the scheme was established in all the provinces of the country. Dr Gupta, he attributes the success of the initiative to supportive and influential individuals in the country, a well thought-out scheme that was strongly community based and a series of fortunate events. However, in contrast, a study in Pakistan showed results, also suggested a similar model could be implemented in their country. As relatively similar countries and initiatives, it would not be unreasonable to assume the success of the Sri Lankan model is due to them taking advantage of the higher rates of maternal education to successfully create community based improvements, nationally.

METHODS

To analyse the correlation I used data from the World Bank database and use the most recent figures. My inclusion criteria when choosing countries included those with sufficiently reliable data from after the millennium on all three measures. Furthermore, the literature search included the terms: female literacy rate, MLIC, maternal outcomes, neonatal outcomes, health initiatives. With a preference for various types of texts (including retrospective studies, comparative reviews, closed audits and books) in an attempt to negate the limitations of each method.

Results

Female adult literacy rates (FLR) are very closely linked to maternal and neonatal health outcomes. However, they partially conversely chose a variety of markers to measure female empowerment from: adult and adolescent fertility rate; mean age at first marriage to adult and adolescent literacy rates.

Alternately in areas where long-term MNH initiatives are failing to show results, targeting female literacy may be the prompt needed.

Limited resources could be provided strategically in areas where FLR and MNH are low, promising schemes targeting education financially, materials and people to be spread further geographically.

Questions:
1. Is there a link between female literacy rates (FLR) and maternal and neonatal health (MNH)?
2. Is it strong enough that a rise in female literacy rates (FLR) and maternal and neonatal health (MNH)?

Primary education)

Evidence shows that educated females are more empowered, can pursue careers, have a greater understanding of the life-choices that affect health and are more likely to seek professional help. While the cultural contexts, they often delay marriage, postpone childbearing, have fewer and spaced pregnancies, all known to improve maternal and child health. They can read and absorb more information, influence a better comparison between health care facilities and other health care services, thus increasing access to and encouraging participation in public health initiatives.

Fig1.

Fig2.

Fig3.

Fig4.

In contrast, a study in Pakistan© looked at the success and scalability of transport interventions aimed at maternal, child, and neonatal outcomes, by analysing 7 interventions against the correct criteria. Sadly their results couldn’t highlight an intervention with sufficient statistical success but showed instead that in the context of relatively simple community-based models would be the best outcomes in that context. As relatively similar countries and initiatives, it would be unreasonable to assume the success of the Sri Lankan model is due to them taking advantage of the higher rates of maternal education to successfully create community based improvements, nationally.

CONCLUSION

How do we use this information?

Countless studies have shown the increased effectiveness of health initiatives when based in the community. Giving locals autonomy in planning and designing the intervention, fosters a sense of ownership and investment, simultaneously avoiding perceptions of ‘western superiority’ which can hinder progress. Rifkin© argues that women, in MLIC particularly, are often better placed to improve healthcare for a multitude of reasons:

- Principal providers of health care – informally and formally
- Their role in communities often allow for greater communication with other women – sharing valuable information.
- Stronger community roots (particularly when MILCs men migrate to urban areas for work) encourages continuity of initiatives
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- Many traditionally female roles: water collection, preparation of food, upbringing of children, are areas of intersectional approaches to learning.
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IS THE CORRELATION DUE TO A THIRD CONFUNDING FACTOR – ECONOMICS

The economic status of each country is intricately linked to each marker. Hence the correlation could be due to the financial state of the country separately affecting both and not a causal relationship between FLR and MNH. However, two points exist in contention:

1. Trends between FLR and MNH exist within each economic subgroups
2. Countries, such as Sri Lanka, suggest a causal relationship. Providing case studies illustrating how finances are not the dictating factor.

Sri Lanka has 9% of the UK’s GDP per capita and yet has a recent civil war and comparatively inferior healthcare provisions: yet a FLR of 95%, higher than UK, USA, China and France. Sri Lanka also has lower markers of maternal and neonatal mortality in line with countries for far more economically developed.

References