

Diarrhoea and Inequities – Policy Implications

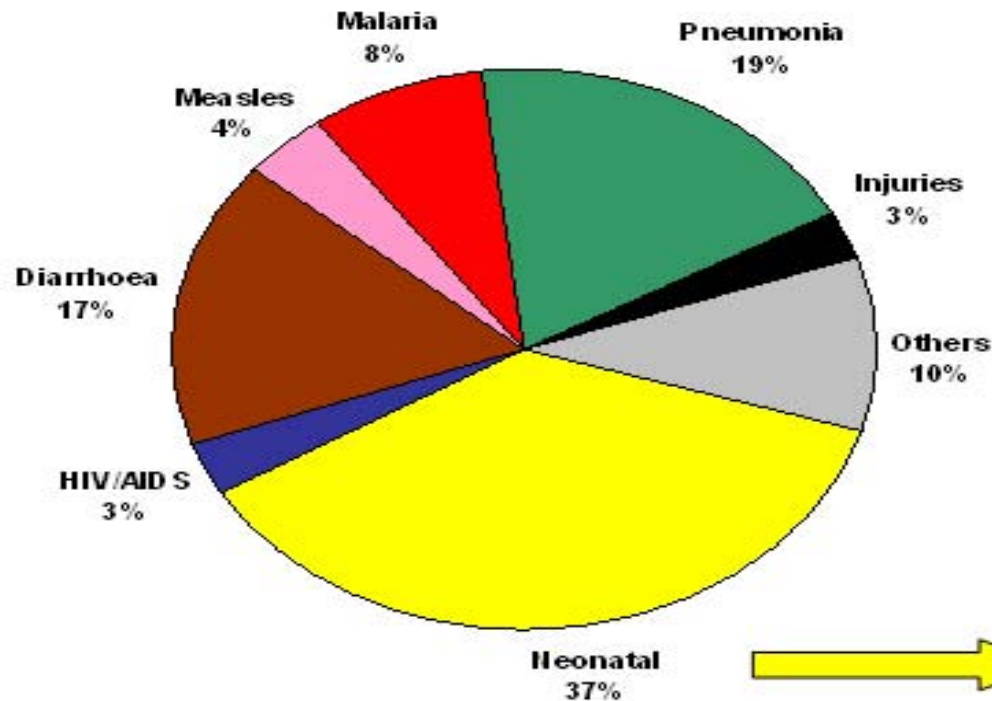


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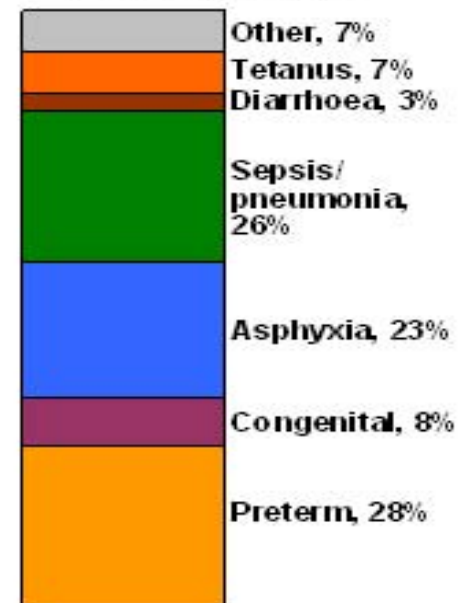


Birger Forsberg, Davidson Gwatkin, Göran Tomson, Peter Allebeck,
Max Petzold

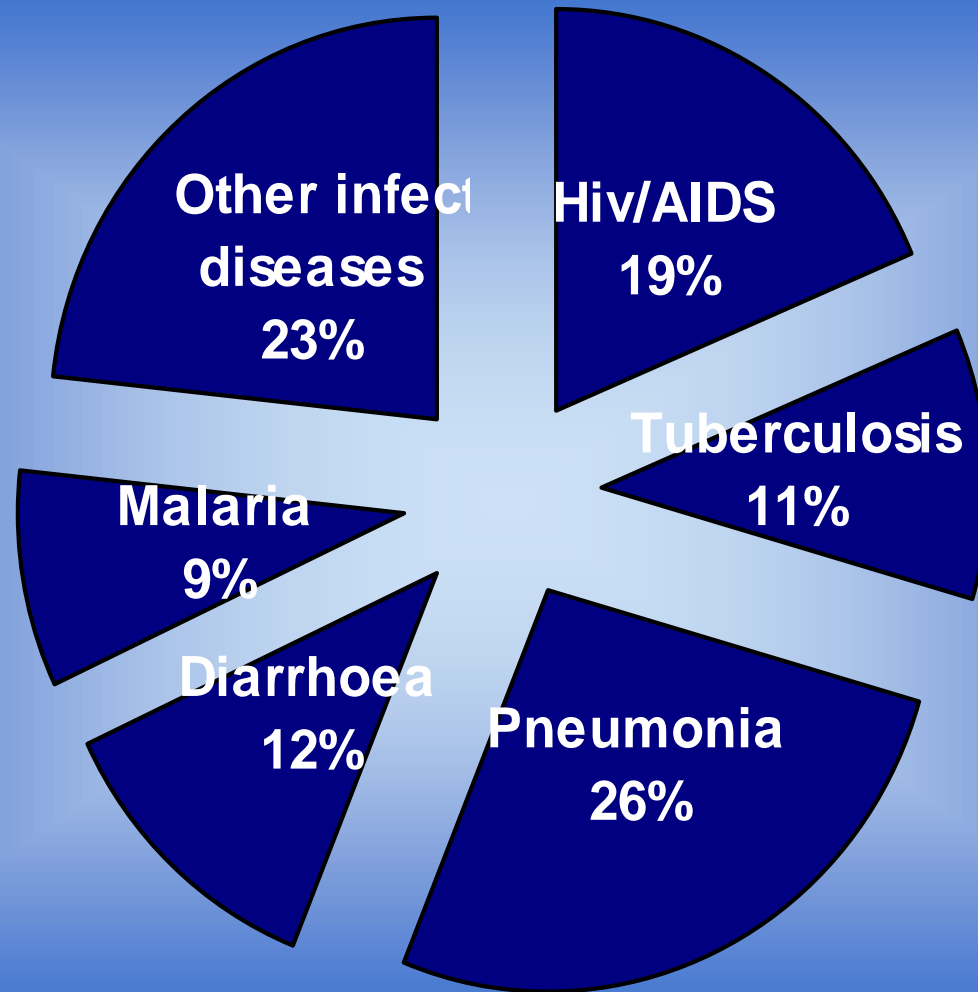
Major causes of death among children under 5 years of age and neonates in the world, 2000-2003



Causes of neonatal deaths



Undernutrition is an underlying cause of 53% of deaths among children under five years of age.



**Distribution of deaths due to infectious diseases in the world.
Estimated annual number of deaths 15 million.**



Child Health Goals

■ World Summit for children Goal No 23

→ Reduction by 50 per cent in the deaths due to diarrhoea in children under the age of five years and 25 per cent reduction in the diarrhoea incidence rate.

■ MDG 4

→ Reduction by two thirds of child mortality from 1990 to 2015



Diarrhoea case management in low- and middle-income countries — an unfinished agenda

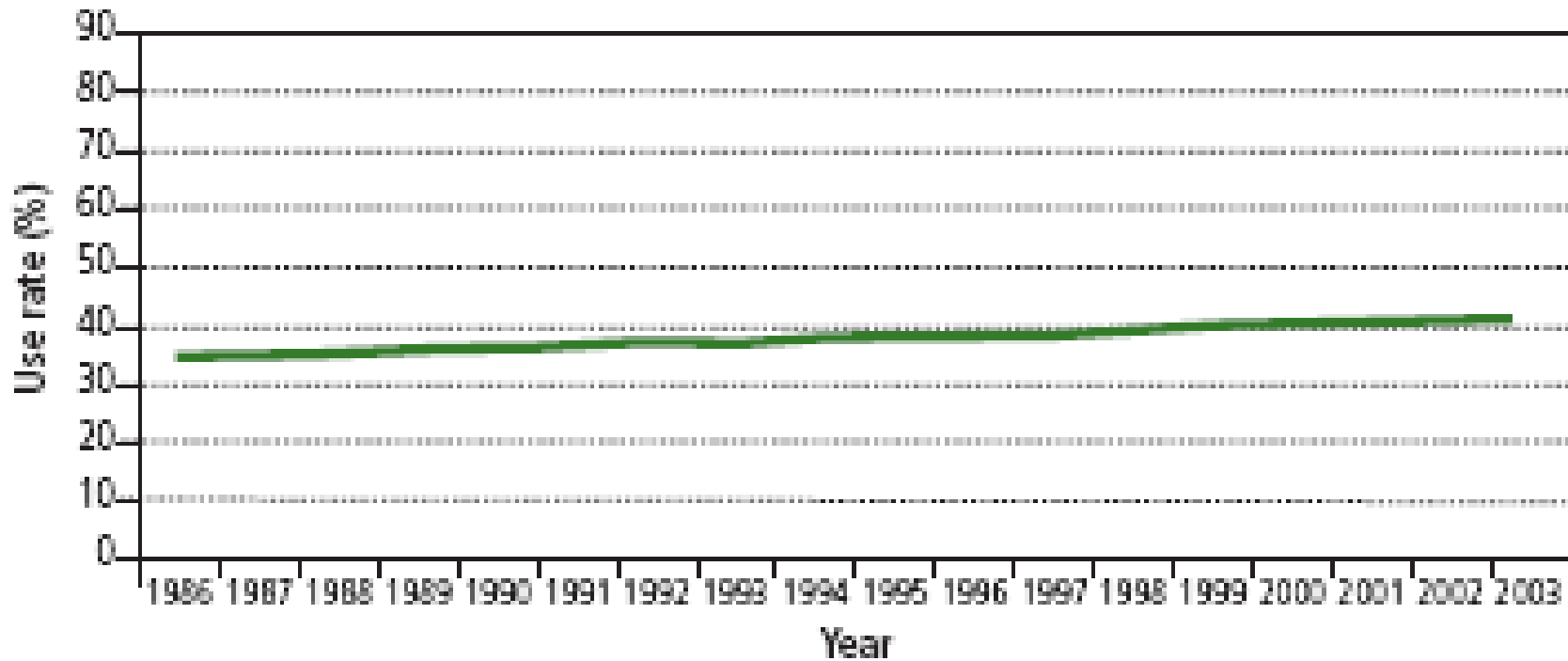
Birger Carl Forsberg,³ Max G Petzold,^{3,4} Göran Tomson³ & Peter Allebeck³

Objective To ascertain whether diarrhoea management improved during 1986–2003, a period when significant efforts were made to promote effective case management in children.

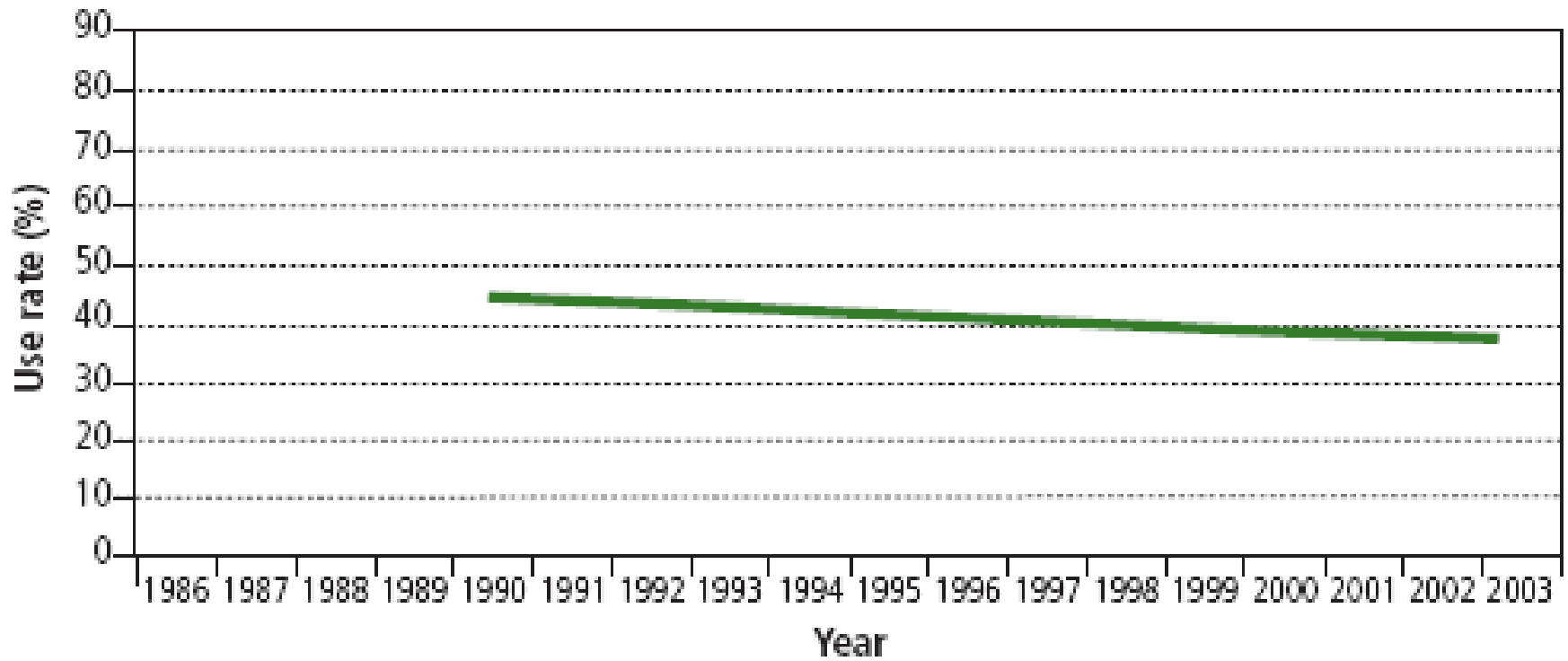
Methods We analysed household data from 107 Demographic and Health Surveys in 40 low- and middle-income countries from 1986 to 2003 and assessed trends in indicators of rehydration, fluid quantity and food intake in children with diarrhoea. A statistical analysis was made of the overall trend for each indicator.

Findings Modest progress was made with regard to the use of oral rehydration therapy (ORT) (0.39% per year) and increased fluid intake (1.02% per year), and use rates remained low in 2003, when compared with desired full coverage. Although use rates improved in the majority of countries, no progress was made in several countries. We estimate that, annually, 307 million children in low- and middle-income countries did not receive ORT, 356 million did not get increased amounts of fluids, and at the beginning of the 21st century, 227 million children got neither ORT nor increased amounts of fluids.

Conclusion The finding that many children in low- and middle-income countries do not receive proper treatment for diarrhoea points to the urgency in addressing this unfinished agenda in child survival. The effectiveness of diarrhoea control needs to be improved after critical review of established approaches and activities to reach caregivers of children at risk of dying from diarrhoeal diseases. Significant efforts must be made to scale up activities to improve case management and reduce childhood deaths from diarrhoea.



Estimated mean trend in oral rehydration therapy as documented in 107 DHS surveys in 40 low- and middle-income countries.



Estimated mean trend in children given no ORT or increased fluid intake as documented in 92 DHS surveys in 36 low- and middle-income countries.



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WHO Bull Jan 2007

Conclusions from study

→ Limited progress in diarrhoea case management during the study period:

**307 million children did not get ORT
at the beginning of the 21st century.**



Question:

- How to reduce diarrhoea mortality
 - 1. Morbidity reduction

 - 2. Case-fatality rate reduction
 - Improved nutrition
 - Improved case management



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Are targeted interventions an option?

Like pro-poor interventions?



Objective of study

- To determine socio-economic inequalities in childhood diarrhoea morbidity and case management
- To estimate the potential for health improvements through a pro-poor approach to diarrhoeal diseases control.



Method

- Diarrhoea prevalence and case management of children 0-4 years old were taken from
 - **93** DHS household surveys in
 - **55** countries 1990-2005and analysed by **wealth** quintiles.
- In addition, trends in inequalities were analysed over time.
 - DHS=Demographic and Health Surveys



RESULTS

Diarrhoea prevalence rate			ORT use rate		
Low quint.	High quint.	All	Low quint.	High quint.	All
16,3%	11,6%	14,7%	47,7%	63,7%	53,5%



RESULTS

- In 88.2% of the surveys the best-off households had lower prevalence than the poorest.
- In 89.7% of the surveys ORT use rates were higher among the best off than among the poorest.



RESULTS

- If all would have had the prevalence of the quintile with the lowest prevalence rate.
 - The potential prevalence reduction would be 22.8% for the 635 million children surveyed
 - This corresponds to 511 millions of episodes of diarrhoea less *per year*



RESULTS

- If all socio-economic groups had adopted the ORT use of the best performing,
 - The overall use of ORT would have increased with 21.5%
 - This would correspond to 481 million diarrhoea episodes annually treated correctly.



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RESULTS

- TREND ANALYSIS

→ Did NOT show reductions in inequalities over time.



CONCLUSION

- Households in higher socio-economic groups consistently showed lower diarrhoea morbidity and higher use of ORT.



CONCLUSION

- By improving conditions for the worse off
 - Diarrhoea prevalence could be potentially be reduced by up to 20%
 - ORT use rates could be increased by up to 20%



RECOMMENDATIONS

- Preventive measures should be accelerated for the poorest and
- access to ORS/ORT should be increased by making it
 - Widely available
 - And free or affordable
- information on the importance of using ORT should be disseminated more intensely to the communities at highest risk of contracting diarrhoea.

sent in cold chain to DIO immediately

DIO Tel.No. 2592
SMO Tel.No.

