

engage in a public debate about how they will lead WHO. This should also be the last election decided by the whims and conflicts of interest of 32 publicly unaccountable officials. A small step in the right direction would be to open up the voting to all of WHO's member states. A bolder one would be to form an electoral college with a broader base of expertise reflecting the diversity of political and non-political perspectives that are embraced by international public health. The *BMJ* and the *Lancet* intend jointly to host a debate in Geneva in January at the same time as the executive board meeting. We hope to start a movement towards reforming the election process. WHO's leader

should be chosen on merit and not by hidden political forces. It could make the difference between leading the world to better health or retreating into irrelevance.

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Optimal duration of exclusive breast feeding in low income countries

Six months as recommended by WHO applies to populations, not necessarily to individuals

Breast feeding continues to be the norm in low income countries, but the period of exclusive breast feeding after birth is often short.^{w1} Accumulating evidence of the benefits of exclusive breast feeding led to a recommendation by the World Health Organization that it be done for the first six months of life,¹ consistent with a previous recommendation by Unicef. This guidance seems to be based on accumulated evidence.

Observational studies in low income populations, even in tropical settings, have shown that fluids in addition to breast milk are unnecessary to maintain hydration.² Furthermore, the addition of water, tea, or other liquids has adverse effects on the output of breast milk, growth, and morbidity and mortality due to infectious diseases.^{3 w2} A reanalysis of studies in Brazil and Bangladesh has found that breastfed infants in the first six months of life who were given additional foods had a twofold to threefold higher mortality from diarrhoea and pneumonia in comparison with infants who were exclusively breast fed.^{3 4} The only randomised controlled trials in a low income country (Honduras) found, like previous observational studies, that introducing fluids or foods into the infant's diet before 6 months of age did not benefit growth.⁵ Yet two issues remain unsettled.

One of the issues that was not addressed in the recent recommendations is the adequacy of exclusive breast feeding in regard to the infant's intake of iron and zinc. Evidence shows that in settings where newborns, especially those with low birth weight, have low iron and zinc stores they may have a need for more of these minerals than is usually provided in breast milk.^{6 w3} In such settings the fluids and foods usually provided to young

infants are poor sources of these minerals and may actually reduce the bioavailability of iron or zinc from breast milk.^{w4} Exclusive breast feeding is still recommended, but supplementation with iron and zinc may be needed from about two months of age.⁷

The recognition that HIV can be transmitted from infected mothers to their infants through breast milk leads to the second major issue. In settings with low infant mortality and affordable and safe infant formula food, withholding breast milk is recommended.^{w5} Unfortunately, in low income settings infant mortality is often high, and the rates of death from diarrhoea, pneumonia, and other infectious diseases would probably increase without the protection afforded by breast feeding, particularly where sanitation is poor.⁸ Furthermore other prerequisites for providing safe alternatives to breast feeding for infants with HIV infected mothers—for example, voluntary counselling and testing for HIV infection in women, and available and affordable breast milk substitutes for the infant—will demand more commitment of resources than exists currently.^{w6} Although it has been shown that it is possible to withhold breast feeding and reduce HIV transmission without increasing infant mortality in a highly selected population of HIV infected women in a low income country, these results cannot be generalised to most of the developing world.⁹ More information on the benefits and risks of breast feeding in populations with a high prevalence of HIV infection is greatly needed; one study shows that, for HIV infected women who choose to breast feed, doing so exclusively may reduce the rate of HIV transmission in comparison to partial breast feeding.¹⁰ A practice of exclusive breast feeding for up to six months

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followed by rapid weaning from breast milk may therefore provide the best approach until programmes to provide alternatives to breast milk are more fully implemented.⁶

The recent policy debate considered whether a single age—for example, 6 months—would be appropriate as a global recommendation or if an age range would accommodate individual and regional variability better. It is important to separate recommendations for populations from those for individuals. A WHO expert consultation recommended exclusive breast feeding for six months, emphasising that this recommendation applies to populations while recognising that some mothers will be unable to, or choose not to, follow it.¹¹ In our view this recommendation is appropriate given the available evidence. A recommendation for an age range would be open to misinterpretation and commercial pressure from the infant formula industry.

Evidence shows that exclusive breast feeding for six months is feasible and is acceptable to mothers in low income countries, as shown by the success of programmes promoting exclusive breast feeding and in the positive trends in the duration of exclusive breast feeding in many low income countries.¹² At the same time means to ensure the adequacy of iron and zinc intake and to reduce HIV transmission in exclusively breast fed infants need to be sought.

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Arrhythmias and sudden death in patients taking antipsychotic drugs

High doses and combinations of certain drugs are best avoided

The first report that patients with schizophrenia might be at special risk of arrhythmia and sudden death appeared in the early 1960s, when thioridazine was found to prolong the QT interval, an electrocardiographic abnormality that could lead to torsades de pointes and sudden death.¹⁻⁴ This same problem arose with sertindole—lengthening of the QTc interval and an apparent excess of sudden deaths in clinical trials—and led the US Food and Drug Administration to refuse it a licence.⁵ Nevertheless, whether cardiac deaths are related to the illness itself or to the drugs used to treat it has remained unclear. Data from a very large American cohort of almost 100 000 outpatients with schizophrenia who were treated with antipsychotics were published recently and begin to suggest an answer: the drugs play a major part, although a risk factor conferred by the disease or associated with it may contribute (for example, smoking).⁶ The study originated from unpublished preclinical work comparing ziprasidone, a new atypical antipsychotic drug that Pfizer had developed, with established antipsychotics. Ziprasidone caused notable

QTc prolongation, and the FDA had concerns about licensing it mainly because of this abnormality.

The study examined administrative records (including all prescriptions) from three regions in the United States, comparing the incidence of cardiac arrest and ventricular arrhythmias and all cause mortality in patients with schizophrenia treated with an antipsychotic with that in two other cohorts, one with patients of glaucoma and one with patients of psoriasis. Both these conditions require long term medication, and neither is associated with cardiac risks. Of the patients with schizophrenia about 41 000 had received haloperidol, 24 000 thioridazine, 22 000 risperidone, and 8000 clozapine. With haloperidol, thioridazine, and risperidone the rate of cardiac arrest and ventricular arrhythmias and all cause mortality was two to five times higher than in the comparison groups. The findings confirm that all cause mortality in schizophrenia is relatively high. A dose-response relation could be identified only for thioridazine: the risk ratio for cardiac arrest and ventricular arrhythmias between the highest and the lowest doses was 2.5. In