

Dialogue on Diarrhoea

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The international newsletter on the control of diarrhoeal diseases

Evaluation is a useful tool – not a threat

**Evaluation can be:
a friend, not a foe
an education, not an enemy
the opportunity to do better.**

For some people, the word 'evaluation' causes alarm. They imagine it is about measuring how hard people are working and then criticising anyone who is not doing well. However, this impression is

mistaken. Evaluation can help and encourage health workers. This issue of *DD* explains how evaluation works and how it enables health workers to provide a better service for people.

Evaluation can be looked at as a cycle of steps.

● **Setting the objectives** Evaluation involves comparing what we are doing with what we set out to do. Clear objectives have to be set at the start of a programme. For

example, we will train 80 per cent of mothers in the district to prepare oral rehydration therapy (ORT) by next December.

● **Action to achieve the objectives** Next, we work on activities to achieve our objectives. Many of us are so busy carrying out the work that we rarely stop to ask how we are doing.

● **Looking at what we are doing** Asking questions, systematically observing, measuring and noting what has been achieved is the next stage. This may involve counting the numbers of mothers trained, testing if they can prepare ORT and asking if they have given ORT to their children. It is worth involving not only the health team, but also the people who use the service. This is known as participatory evaluation.

● **Analysing the results** If our objectives have been clearly defined we should be able to compare what we have achieved with what we set out to do. If numerical targets have been set, statistical tests can be applied to see if the changes since the start of the programme are true differences and significant.

● **Communicating the results** The results should be shared with people who have planned the programme, those who have carried out the work, people who have collected information for the evaluation, and those who have received the service. Failure to feed back the results leads to lack of interest and falling standards of observation.

● **Improving the service** This is the vital, final step in the evaluation cycle. It is the real purpose of evaluation – to do things better. Evaluation should be a partnership in which health workers and communities work together for improved health care.



Jeremy Hartley/Panos Pictures

A good evaluation enables a community to take sound decisions about its future.

William Cutting and Katherine Elliott

In this issue:

- Evaluation techniques – surveys and sample selection
- Breastfeeding twins – pictures of positioning
- Exclusive breastfeeding – your questions answered

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Evaluation means asking: how are we doing?

Collecting information to measure performance is a vital part of health work. Only when we have assessed how we are doing can we plan to do it better. *DD* explains what evaluation is and how it is done.

Most of us working in health have at some point questioned what we are achieving. We already carry out our own personal 'evaluations', for example, by thinking about whether a health education discussion went well, by asking colleagues' opinions on progress and by listening to changes in community opinion.

Evaluation is simply a more systematic way of measuring progress and assessing whether a programme or activity is achieving its goals.

Why evaluate?

A common belief is that evaluation involves outside 'experts' collecting complex statistics for funders or government departments. However, evaluation concerns everyone. It helps us to look at what we are doing and to work out how to do it better. For example, a community health worker needs to know if her weekly village visits have helped mothers understand how to treat diarrhoea. A supervisor of wells must find out if the community is actually using the wells.

What is evaluation?

Evaluation is any process designed to assess whether a programme or activity is actually doing what it set out to do, and to suggest ways in which it could be altered to improve effectiveness.

In this article the term evaluation includes continuous **monitoring** and periodic reviews of performance as well as 'after the event' evaluation.

Evaluation can help us to:

- see if the programme is moving in the right direction
- identify and explain successes and failures
- compare the effectiveness of different activities or parts of a programme
- collect information for future planning.

It is not possible to answer all potential questions about every aspect of a programme. Evaluations must focus on the most important questions. A good rule is never to ask a question unless you can see in advance how the answer might be used to change the programme. Collecting **data** which are not used is a waste of resources and is demoralising for staff.

When to evaluate?

Evaluation should be part of programmes from the start, not added at the end. It should be planned and budgeted for in advance. All the stages of a programme can be evaluated, including the inputs, the specific activities within the programme and the overall impact. Trying to cover everything, however, would leave programme managers and health staff little time for anything except evaluation!

Sometimes a programme or activity needs to be tested before it is put into practice on a wider scale. The testing is known as a pilot programme. Its main purpose is to evaluate whether the programme works, and is worth repeating or adapting for use in other communities.

Evaluation techniques include:

- **Questionnaires** – written questions used to gather information from selected people
- **Interviews** – verbal questions
- **Observation** – methodically watching and noting down what people do. This can sometimes be more reliable than asking questions, because people will often say what they think an interviewer wants to hear rather than what they actually do.
- **Group discussions** – discussions guided by an experienced person who can assess group knowledge or attitudes.

Regular monitoring, especially at the early stages of a programme, can identify good or inadequate performance by staff. Good practice can then be encouraged or extra training planned for staff experiencing problems in their work.

It is usually inappropriate to try to evaluate whether a programme has achieved its ultimate aim of having had a health impact (e.g. to reduce infant mortality). To do this requires specially designed research and substantial resources. For example, a programme that aims to make children healthier through better feeding may promote exclusive breastfeeding. The programme should evaluate what proportion of young infants are exclusively breastfed. It does not need to prove that infants who are exclusively breastfed suffer less diarrhoea and have a lower death rate than those who are not exclusively breastfed. This link has already been widely shown.

There are three main stages in evaluation: planning; carrying it out; and analysing and reporting the results.

How to plan?

First of all we should be clear about the aim of a programme or an **intervention**. For example, the aim of a hygiene education programme may be to decrease diarrhoea episodes in young children. That aim then needs to be narrowed down to goals that

Glossary of terms

Baseline information	Facts about the situation before an activity or programme starts
Data	Facts collected for a special purpose
Indicators	Measurable 'markers' of progress
Intervention	The introduction of an activity or programme designed to bring about change
Monitoring	Continuous information collection to assess the functioning of the programme or activity
Quantitative	Information based on numbers or statistics
Qualitative	Descriptive information about ideas, beliefs and behaviour

can be measured – known as **indicators**. Indicators for a hygiene education programme could be:

- the number of children who wash their hands after defecating
- changes in hygiene practices related to food preparation
- mothers' understanding of the need for handwashing.

It is best to keep the evaluation simple and decide on one or two key indicators. That way information collection is easier and will take up less time and money.

How to evaluate?

Evaluation measures the effect of an intervention by assessing the situation before and after it was introduced. Therefore information needs to be collected before the intervention (known as **baseline information**).

Usually, evaluation will need a mix of approaches. These include the collection of **quantitative** information (statistics or numbers), either through routine reports (e.g. how many mothers have attended health education sessions) or surveys (e.g. how many children wash their hands after defecating). Equally important is the collection of **qualitative** (descriptive) information; for example, through in-depth interviews (e.g. asking mothers what they think are good practices in preparing food) and group discussions (e.g. asking groups of mothers if they think health talks given by clinic staff are useful).

Different evaluation techniques are appropriate for different indicators. For example, a water supply project may decide that a house-to-house survey recording sources of drinking water in the home is the best technique for measuring use of an improved water source. Alternatively, a group discussion may be the best way of evaluating mothers' understanding of the need to use clean water.

Clearly, good quality data are important. However, a common problem is that evaluators try to be too precise with their answers. Trends are often more important than specific figures (e.g. about three-quarters of the households in a community collect their water from the new well, compared with about a third before the health education talks started).

Who should be involved?

Decisions about how to carry out an evaluation should ideally involve everyone affected – the staff, community, funders and

Evaluation is like a bus journey. You have to know: where you want to go; whether the route is direct; how fast you are travelling; and how to recognise when you have arrived.

programme managers. Evaluations decided upon by planners in capital cities may succeed in collecting statistics, but vital information about local attitudes may be missed. Community members provide valuable information about local beliefs, practices and leadership. They can also point out where evaluation techniques may not be appropriate. For example, trying to accurately count infant deaths in a community may be limited by local taboos against talking about children who have died.

If community members and staff are consulted beforehand and involved in the process they will also be more likely to be committed to the programme's aims and to learn from the results of the evaluation. A good evaluation can enable communities to see their own progress and to take sound decisions about their future.

What to do with results?

Once information has been collected it needs to be analysed and reported. The evaluation must give a clear answer to the question: 'How are we doing?' It should indicate what has been successful and what has not, and give constructive and practical suggestions as to what might be done to improve things. It is very important that this information is fed back to all staff concerned with the programme. This will help them identify what they have achieved and where they could do better.

An evaluation report should be short and to the point. Statistics must be presented clearly and should be used to illustrate change (or lack of it) rather than to confuse the reader with too much detail. Reports do not always need to be written. Verbal reports, or other more creative strategies for communicating the results to the community (such as plays and pictures), can be devised (see page 6).

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Health workers and community members should be involved in the planning of an evaluation.

J-L. Ray/WHO

WHO's household survey

Surveys are a good way of collecting information from a limited number of people to provide a picture of a wider population. Elizabeth Sherwin reports on a household survey to find out how diarrhoea is managed at home.

The World Health Organization developed a revised standardised household survey in 1989 to help national programmes to better evaluate home treatment of diarrhoea. Since that time about 90 surveys using this approach have been carried out in over 30 countries.

The survey provides important information on home management by focusing on seven key indicators of appropriate treatment. These are:

- oral rehydration salts solution (ORS packets) use
- oral rehydration therapy (home made sugar-salt solution, other recommended home fluids and/or ORS) use
- increased fluid intake
- continued feeding
- correct ORS preparation
- correct home fluid preparation
- the proportion of carers who know when to seek medical help.

Information is collected by interviewing caregivers (usually mothers) of children under five years old who have had diarrhoea

in the 24 hours before the survey.

Children under five years old are identified using a cluster sampling method. This means groups or clusters of nearby households are chosen randomly using a chance selection (see box on page 5). The survey usually comprises 30–60 clusters each containing 100–200 children under five. The surveyors then go from house to house and identify the children who have had diarrhoea in the last 24 hours.

Standard questions asked of mothers include the amount of food given during episodes of diarrhoea, the signs and symptoms that would prompt them to seek help from a health worker, and whether they treat their children with drugs. These questions are adapted to take account of local language and beliefs. The surveyors also watch mothers preparing ORS and home fluids.

Planning for the survey takes 3–4 days and should be done a month or two in advance. It involves:

- discussion of objectives
- selection of locations and timing (best

done in the peak diarrhoea 'season')

- choosing the sample size
- randomly selecting clusters
- identifying surveyors (20–30) and supervisors
- preparing a budget
- adapting questionnaires for local use.

Between planning and carrying out the survey, preparations have to be completed including: obtaining government and local community approval; making arrangements for training, transport, accommodation and translation (if necessary); testing out and printing of questionnaires; and recruitment of supervisors and surveyors.

The actual survey takes about a month, including one week for training, 2–3 weeks for data collection, and one week for data analysis and report writing. The data analysis can be done by hand or using a simple computer programme.

Using the results

The survey provides important information about what happens at home – the place where diarrhoeal disease control programmes succeed or fail. The findings highlight the communication messages that need to be devised for mothers.

Examples of where household surveys have provided useful information include:

- In **Nepal** a comparison of survey data from 1985 to 1990 showed little improvement in ORS and ORT use rates, even though most mothers knew about ORS. The programme therefore decided there was a need to make ORS more available and to convince more mothers of its value. In order to increase the use of ORT, the programme decided to recommend home fluids in addition to sugar-salt solution.

- A survey in **Vanuatu**, in the Pacific, indicated the need to recommend home fluids, and to establish 'ORT corners' in health facilities to provide better information to mothers on the preparation of ORS and the importance of giving more fluid.

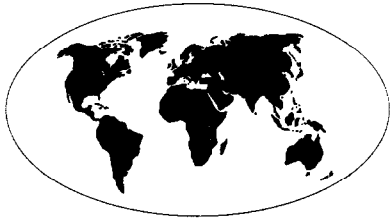
- In **Kenya** a survey highlighted the fact that many mothers cannot prepare ORS correctly. The main reasons identified were the availability of a variety of ORS packets requiring different amounts of water and inconsistent health education messages recommending different home containers for measuring. As a result of the survey, one standard packet and a limited number of containers will be promoted.

Dr Elizabeth Sherwin, CDD, WHO, CH-1211 Geneva 27, Switzerland.



Christian Aid/C Steele-Perkins

Mothers of young children who have had diarrhoea in the past 24 hours are asked about the treatment they gave.



Providing a global picture

Findings from WHO household surveys around the world have been analysed to produce a global picture of progress on action to reduce deaths from diarrhoea.

They have shown that global rates for use of ORS and ORT are increasing, although the rate of increase has started to level off over the last few years. At the end of 1991, the global ORT use rate was estimated to have been 38 per cent.

Surveys in 1989–90 showed that when children have diarrhoea:

- more than 90 per cent of mothers worldwide continue to breastfeed
- most children (60–70 per cent) are offered more food, or at least their normal amount
- a low proportion of mothers (15–30 per cent) increase the amount of fluid they give children
- water is the most common liquid given, followed by tea, coffee and various infusions.

These findings show the urgency of getting across to mothers the simple message that children with diarrhoea need to drink more.

Training manuals

A training manual is available from WHO on how to plan, conduct and analyse a household survey. It contains:

- sample size calculations
- guidelines for planning and conducting a survey
- information about training
- questionnaires and explanations of each question
- instructions for analysing data.

Guidelines for conducting surveys at health facilities are also available. A revised household survey incorporating questions on acute respiratory infections and breastfeeding will be available in 1993.

Contact: WHO/CDD, CH-1211 Geneva 27, Switzerland.

Vietnam measures progress

Household and health facility surveys have been used in Vietnam to chart a remarkable improvement in appropriate treatment of diarrhoea.

Vietnam's diarrhoeal disease control programme (CDD) began in 1982 in four provinces and has expanded over the last decade to cover the whole country.

Household surveys in different parts of the country in 1986 and 1987 revealed several areas of concern: a very low rate of use of ORS and ORT (7 per cent and 13 per cent respectively); with only just over half of mothers (54 per cent) continuing to feed children during diarrhoea, while slightly more (65 per cent) continued breastfeeding during diarrhoea.

Surveys of health facilities during the same period showed a high usage of drugs (75 per cent) and of IV therapy (42 per cent). Only a quarter of health staff surveyed could provide correct advice to mothers about what to do when their children get diarrhoea.

The findings showed that health workers needed better training in clinical management and on advising mothers. It prompted the CDD programme to establish four diarrhoea training units (DTUs) at children's hospitals in the major centres – Hanoi, Hue and Ho Chi Minh City. These units offer

regular courses in clinical management of diarrhoea for paediatricians working at provincial level. Later, four smaller DTUs were set up in large towns to provide training for health workers in district hospitals. In addition, courses for trainers about teaching health workers better communication skills have started in six provinces.

More household and health facility surveys were carried out in 1990–1991 to assess the effectiveness of the DTU training programme. Use of ORS and ORT at home had increased by around 500 per cent (to 35 per cent and 64 per cent respectively). Continued feeding and continued breastfeeding had also risen markedly (to 76 per cent and 96 per cent respectively).

Hospital facilities also showed an impressive reduction in incorrect treatment practice (drug use decreased to 57 per cent of cases and IV therapy to around 19 per cent). A greater number (32 per cent) of health staff knew the correct advice to give to mothers.

However, the surveys found there was still room for improvement, especially in more remote areas, and in health workers' communication skills.

Vietnam's experience shows how periodic evaluation can measure progress and identify priorities for future action.

Dr Nguyen Anh Dung, c/o National Institute of Hygiene and Epidemiology, 1 Yersin Street, Hanoi, 10,000, Vietnam.

The selection of samples for surveys

A survey is the systematic collection of information from individuals. It usually involves asking questions face-to-face. The advantages of a survey are:

- It can provide information and statistics from a large number of people living in a wide area.
- Many different pieces of information can be collected at the same time.
- If a sample is carefully chosen, information obtained from a few people can tell us about a whole population.

How you choose a sample is crucial. Sampling means examining part of something in order to learn more about the whole thing. For example, if you want to know how a pot of food tastes you do not need to eat the whole pot, a spoonful will do.

There are two main types of sample:

- **Random sample** – a 'chance' selection, in which all individuals or households within an area being studied have an equal chance of being selected. For example, numbers representing different households may be picked out of a box. When random clusters are used, the initial household is chosen randomly, then a number of neighbouring households are also studied. This method should produce a cross-section of the population under study which can be analysed statistically.

- **Systematic sample** – a simple way of choosing; for example, questioning every tenth individual or those visiting a clinic on a particular day of the week. It can be a quick way of selecting a cross-section of people; however, it may be open to bias (e.g. there may be special reasons why certain people attend on a particular day).

Taking a partnership approach

Marie-Thérèse Feuerstein describes an evaluation process involving schoolchildren in India which was both educational and fun.



Marie-Thérèse Feuerstein

Flash cards test children's understanding of the link between poor hygiene and diarrhoea.

Health education talks are often given to children in primary schools. But what do the children remember and how do they respond in practice?

A school health education evaluation package based on a child-to-child approach was developed in India to test children's knowledge about health problems. The children had been given health education lessons on a wide range of issues including nutrition, diarrhoea and personal hygiene.

Older pupils were chosen to work with an evaluation team of local health and community workers. These pupils measured

their younger schoolmates using a weight-by-height measuring chart. They found that one in four younger children were only 60–80 per cent of the correct weight for their height.

This exercise reinforced earlier health education messages about the need to grow up healthy and strong. It also helped teachers to identify underweight pupils who needed extra attention.

Health and community workers then used hand-drawn flash cards (see box) to evaluate the children's understanding of three common health problems: diarrhoea, scabies and eye infections. The diarrhoea flash cards showed:

- children buying sweets that were obviously contaminated
- the same children with diarrhoea
- and the children with diarrhoea drinking clean water.

The schoolchildren were asked questions about the connections between the pictures. Half of them did not connect poor food hygiene and contaminated food with diarrhoea.

The team presented the evaluation results to the teachers and children in the form of a puppet show (see box). The pup-

Flash card connections

Flash cards are a sequence of pictures telling a story. They are designed to trigger a response in a viewer. Flash cards are often used to test viewers' understanding of the connection between different events. They are useful because:

- they can be inexpensively produced locally
- they can be easily changed if field testing shows any misunderstandings about the pictures
- they can tell stories that children understand and enjoy
- the viewers' response provides immediate feedback.

Feedback using puppets

Puppetry is a good way of providing feedback because:

- it is an active way to share evaluation results since puppets can have a dialogue with the audience
- gaps in knowledge and practice can be taught in an enjoyable way
- puppets can act out private situations without offending or blaming the audience
- children who are shy talking to adults often talk freely to puppets.

pets were based on the flash card characters so the story came to life. The children learned the correct answers to the earlier questions through the puppets.

The evaluation provided useful information for the teachers about where children needed more knowledge. It also helped them to plan future health education involving parents. Finally, it brought about the enthusiastic involvement of pupils and teachers who asked for more evaluation!

Dr Marie-Thérèse Feuerstein, 49 Horn-ton Street, London W8 7NT, UK.

Further reading

Aarons A, 1988. *Child to Child: an approach to learning (revised and adapted for Indian schools)*. VHAI.

Feuerstein M T, 1990. *Partners in Evaluation*. Macmillans. Available from TALC, 226 Hatfield Rd, St Albans, Herts AL1 4LW, UK.

Gordon G, 1986. *Puppets for Better Health: a manual for community workers and teachers*. Macmillans. Available from TALC.

Breastfeeding twins: double the benefits

Margie Davies, a midwife and mother of twins, discusses how to breastfeed twins.

My twins, both boys, were born at 38½ weeks' gestation weighing 6lb 10oz and 6lb 5½oz, so I had none of the problems associated with feeding premature babies. But, as a first time mother, I did have problems such as sore nipples, difficulties in attaching the babies to the nipples (latching on), and not enough professional help at feed times while in hospital.

The midwives in hospital felt the best way to feed twins was together. From my own experience and all that I had read, I agreed. However, putting it into practice was not so easy. One baby latched on easily but tried to feed too quickly, so came off the breast frequently as he could not cope with the fast flow of milk. His brother, on the other hand, was difficult to fix on and quite sleepy during the feed, so required a lot of stimulation to keep suckling. I needed at least two pairs of hands, and they were

not always available! The midwives were very good, but they nearly always got called away to do something else during a feed, and you could guarantee it was after they left that I would need the extra pair of hands.

With all the on/off the breast and not getting the position quite right it is very easy to develop sore nipples. They can very quickly become painfully cracked and bleed. If this happens, it is easy to see how new mothers can be disillusioned and give up breastfeeding.

We eventually settled into a routine of feeding the boys separately, as I had a back problem and could not sit comfortably with both feeding together; but it took nearly six weeks to arrive at this routine and for the sore nipples to heal. In the end my boys were entirely breastfed for 10½ months.

Once breastfeeding is established most

mothers give each baby its own breast, as supplies on each side are somewhat independent of one another so will develop to suit each baby. If one baby is very small and does not have a very strong sucking reflex, it may be necessary to swap the babies around in the first few days to make sure that both breasts are sufficiently stimulated.

Practical help on positions for feeding two babies together is required; there are several possible feeding positions (see illustrations).

Midwives and health visitors in general need more education about the problems of feeding twins and this should be included in their training. They need to give the mother encouragement and confidence that it is possible to breastfeed twins.

Margie Davies SRN, SCM, 11 Leppoc Road, Clapham, London SW4 9LS, UK.

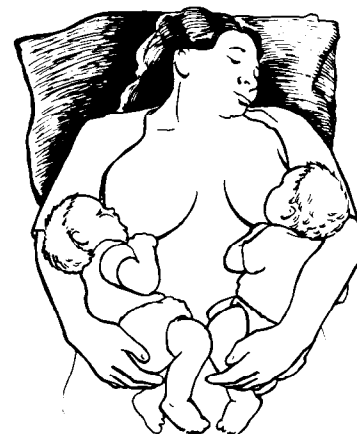
Suggestions for comfortable feeding positions



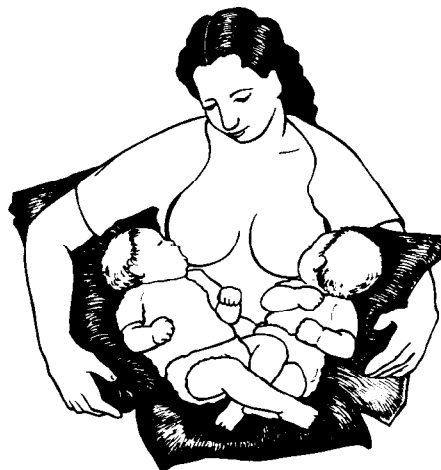
'Football hold': heads on pillows, legs behind.



Babies criss-crossed and supported by pillows and mother's arms.



Mother reclining or lying down with babies parallel to her body.



Babies parallel to mother's body.



Babies facing the same direction.

Drawings by Daphne Paley-Smith

Support groups

Multiple Births Foundation, Queen Charlotte's and Chelsea Hospital, Goldhawk Road, London W6 0X6, UK.

Twins and Multiple Births Association, PO Box 30, Little Sutton, L66 1TH, UK.

Further reading

Bryan E. 1992. Twins, Triplets and More – their nature, development and care. Penguin, London, UK.

Jamaica's promotion of rehydration fluid

I have read the article: 'We tell mothers to use ORS and they don't', published in *DD48*, with interest. I would like to clarify some of the points in the article.

The Ministry of Health's programme for control of diarrhoeal disease does not teach the home preparation of ORS. ORS is used to *treat* dehydration and not for continual home use. What are considered in the article as home remedies are the liquids taught by the programme to be used at home to prevent dehydration. Therefore mothers are really doing as instructed.

ORS packets are available free at health centres and the access rate is over 90 per cent. Diarrhoea accounts for less than 2 per cent of visits to health centres annually. Therefore our programme for control of diarrhoeal disease is tailored to fit the epidemiology of the disease in our country.

Dr B Irons, Acting Senior Medical Officer, Ministry of Health, 10 Caledonia Avenue, PO Box 472, Kingston, Jamaica.

DD would like to thank Dr Irons for drawing these points to our attention. We have also passed on these comments to the author of the article. We apologise if the article has caused any misunderstandings about the Ministry of Health's policy.

The dangers of purging

I agree with the article in *DD48* by Dr Jemima Hayfron-Benjamin about the danger of purgatives. Purgating is widely recommended by traditional healers in Sierra Leone in the belief that all illnesses are caused by problems with the bowels. They think that the illness will disappear when the bowels are free of accumulated waste.

Purgating can cause dehydration and, in occasional cases, perforation of the intestines. Oral purgatives, such as toxic

plants, can poison the patient. Common oral purgatives in this country include plant extracts which are usually used to make local soap or flavour tobacco.

Patrick Johnny, Dispensing Technician, Sonnie Pharmacy and Clinic, Njama-Kowa, via Mano, Sierra Leone.

Exclusive breastfeeding...

The articles on exclusive breastfeeding in *DD49* prompted extensive discussion at a monthly meeting of health workers in our area.

These health workers said that they encourage the use of glucose water from birth until three or four days later. Most workers believed that mothers' breastmilk was not available until the third day after giving birth. Could I ask you to comment on that.

Akekere Jonah, Assistant PHC Co-ordinator, Balga Health Zone, PO Box 66, Rivers State, Nigeria.

...and extra drinks

I am confused when you say that extra drinks are not necessary for the baby feeding with breastmilk. My question is: are babies not thirsty like adults?

Maureen Chioke, PO Box 305, Enugu, Enugu State, Nigeria.

Dr Katherine Elliott replies:

These two letters show that our scientific knowledge about breastfeeding needs to be more widely shared to promote exclusive breastfeeding as the ideal feeding practice for the first four to six months of life.

During pregnancy the breasts gradually become bigger and at birth they already contain a special thick yellowish fluid, called colostrum. This is extremely valuable because it is full of substances which protect the newborn against infections in its new environment outside the womb. But

colostrum does look very different from the thinner, bluish white breastmilk which can take two to three days to appear. If the value of colostrum is not well understood, people may believe babies should not be allowed to suckle until milk is available in the breasts. Water, or other fluids, are often given instead. This belief needs to change for at least three good reasons:

- The first few days after birth are the most dangerous time for babies. If they lose the protection colostrum provides against infection at this critical time, this cannot be replaced.

- Breastmilk is secreted by the breasts in response to the stimulus of sucking. The more the baby sucks, the more the milk will flow. If babies are not put to the breast soon after birth and allowed to suckle frequently, especially for the first week or two, the breastmilk supply may never become properly established. As a result, weaning may have to take place too early, before the baby has got a good start in life.

- As well as being the ideal food, breastmilk is safe and clean. With any other fluid, there is always a risk of infection. Research has shown that infants receiving water, tea or juice in addition to breastmilk have a much greater risk of diarrhoea and death.

There is no need to take this risk. Recent studies have shown that exclusively breastfed babies do not require any extra fluids, even in hot, dry conditions. Giving babies water means they may take less breastmilk, so they become less well nourished.

Small babies are not thirsty, unlike adults. Babies just need frequent breastfeeding. Babies who sleep with their mothers will sometimes feed as often as every half hour. Mothers, however, often *do* feel very thirsty, especially in hot countries. They need to drink more to keep up their breastmilk supply.

For further reading see references DD49 page 3 or write to AHRTAG.

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