

SUZY

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Newsletter of the 'Scaling Up Zinc for Young children with diarrhoea in Bangladesh' (SUZY) Project



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EDITORIAL

Dear readers,

Welcome to the seventh issue of SUZY News.

This newsletter is intended to keep interested people informed of activities and events surrounding the scale up of zinc as a treatment for diarrhoea in addition to ORS for young children in Bangladesh and the research that accompanies and supports this process. This initiative of the Scaling Up Zinc for Young Children with Diarrhoea (SUZY) Project of ICDDR,B also keeps you informed about the benefits of zinc treatment among the under-five children with diarrhoea.

Millennium Development Goal 4 aims at a two-thirds reduction in under-five mortality by 2015

The scaling up activities progressed a lot since the last issue of SUZY News. The Baby Zinc mass media campaign is going on in full swing. Besides the regular promotional tools including television and cinema spots, radio jingle, press advertisements and articles, posters, stickers, billboards, bus branding, folk songs and courtyard meetings, the project has also launched a nationwide school campaign through magic shows, radio programme and television health show for electronic media.

In the second week of November 2007, the SUZY Technical Interest Group met. The meeting appreciated the inclusion of oral saline in the payoff line of Baby Zinc mass media campaign so that there would be no chance of the misconception that zinc is a substitute for ORS. Further, productive suggestions and results came

out of the meeting including increasing promotion in hard-to-reach areas, focus on the areas where diarrhoea prevalence is high and also informing NGOs on this recent advancement of using zinc for diarrhoea treatment of under-five children. Addressing that more efforts needed in rural areas to reduce disparities in using zinc for childhood diarrhoea, the meeting suggested to increase collaboration with the rural medical practitioners.

This issue highlights on the new study of the project to assess the impact of NGO training and support intervention on the diarrhoea management practices of private sector health service providers.

The impact monitoring survey after the launching of Baby Zinc dispersible tablet is also going on. The research team completed data collection of post-launch surveys and now the 2nd phase round survey is in progress.

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We successfully conducted a series of workshop with the leading paediatricians and academics of the medical colleges of Bangladesh.

This issue of SUZY News also includes some highlights of the Baby Zinc communications campaign and SUZY training activities.

I hope you will enjoy reading this issue.

Editor
SUZY News

The SUZY project targets the entire under-five-year-old population of Bangladesh to provide zinc treatment

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Scaling up zinc treatment for childhood diarrhoea through the NGO sector

To reap the maximum advantage of the zinc scale up programme in the public, private and NGO sectors, the SUZY project has engaged in a new study. The study has been designed to bring the use of zinc in the treatment of childhood diarrhoea in the NGO sector.

Zinc for the treatment of diarrhoea, in addition to ORS, for any childhood diarrhoea episode

private practitioners, it is essential to incorporate those sources into zinc promotion as well.

Health care providers in the DSK area are benefiting from strong and sustained NGO-private sector collaboration, established on existing mass media and provider promotion campaigns already in place in Bangladesh. It is hoped that such collaboration will maximize zinc treatment coverage for acute childhood diarrhoea.

This study will also assess the effectiveness of the zinc scale up program and the impact of a zinc scale-up intervention package that needs strong and sustained NGO-private sector collaboration.



Successful collaboration with the Ministry of Health and Family Welfare (MOHFW) of the Government of Bangladesh has ensured that zinc is distributed free of charge in the public sector in cases of childhood diarrhoea and the commercial sector is also reached by the project's production partner The ACME Laboratories Ltd. However, considering that a majority of the population in Bangladesh relies significantly on NGOs (non-government organisations) to provide health services and on unlicensed

Team members of the SUZY project have embarked on a controlled before-after (CAB) study exploring the possibilities of scaling up zinc with its NGO partner Dustha Shasthya Kendra (DSK) under the umbrella of Plan International, against a comparable area served by another NGO with a wide network—Ganoshasthya Kendra (GK).

The study is being carried out in a rural community in Sreepur upazila (sub-district) under Gazipur district in Bangladesh, where both DSK and GK provide direct health care services.

The intervention includes training of the unlicensed health care providers regarding zinc treatment in childhood diarrhoea through NGO health care providers. In addition, intervening NGO will sensitize community regarding zinc usage in childhood diarrhoea through their usual activities.

Through the pre- and post-intervention surveys, it will also be possible to evaluate the effect of the zinc scale up intervention on the prescription and sale of antibiotics in ▶

treatment of childhood diarrhoea in order to determine the value-added by scaling up specifically with NGO providers in addition to the existing nation-wide programs.

This will also reinforce the on going mass media and provider promotional campaigns for using zinc in conjunction with ORS which is the appropriate treatment of childhood diarrhoea according to the WHO/ UNICEF guidelines.

In line with its different strategies for a successful nationwide scaling up of zinc treatment, the SUZY project planned to integrate the NGO sector to make the use of zinc widespread in the community considering the importance of NGOs in providing direct health services there.

The project's other scale-up strategies are integration of zinc treatment into Integrated Management of Childhood Illness (IMCI) protocols in Bangladesh, orientation sessions with licensed providers, training workshops for village doctors and promotion campaign, implying a good example of public and private sectors partnership.

Realizing that an NGO-private partnership could be an additional strategy to further improving zinc coverage across Bangladesh, in particular in rural communities, the project has initiated its new study. This study will provide objective evidence of the impact of this approach, using the scale-up of zinc for the treatment of childhood diarrhoea as a test case.

Within the NGO sector, direct provision of health services is provided; however, some NGOs also work closely with the private sector providers and thus could act as a channel to improve knowledge and practice of unlicensed health service providers who are the preferred source of care seeking in the majority population in Bangladesh for childhood diarrhoea.

The interviewers have received a good response from the community people. Caregivers of children who had suffered from diarrhoea in the last two weeks are the respondents of the survey.

The survey will continue until May this year. ■

Information sharing with leading paediatricians of Bangladesh

The SUZY project organized a series of workshops with the leading paediatricians of Bangladesh that updated them on the scaling up zinc for the treatment of childhood diarrhoea in Bangladesh. Professors, associate professors and assistant professors of Paediatrics in medical colleges across the country attended the workshops.

The workshops were conducted in five different days starting from 28 October - 01 November 2007. National Professor M R Khan, Professor M A Mannan, Pro-vice Chancellor of Bangabandhu Sheikh Mujib Medical University and President of Bangladesh Paediatric Association, Professor M Salim Shakur, Director of Dhaka Shishu (Children) Hospital, Professor A Hannan, Executive Director of Institute of Child and Mother Health, and Dr M A Salam, Director of Clinical Sciences Division of ICDDR,B chaired the sessions of different days.

In the workshops the project partners shared with the participants

the latest research findings of the project, production marketing and distribution of Baby Zinc dispersible tablets, mass media campaign which has been taking place since the launching of zinc dispersible tablet in Bangladesh and also the public sector initiative through Integrated Management of Childhood Illness (IMCI) programme.

The liveliest part of the workshops were the open discussion sessions during which the pediatricians provided their insights and shared their experiences. Overall, they expressed their satisfaction with the scaling up activities.

The academics suggested the addition of the efficacy of zinc in childhood diarrhoea in the medical education curriculum. They also supported the need to emphasize the use of oral rehydration solution (ORS) along with zinc whenever promoting Baby Zinc in the mass media. In that way caregivers will not have the misconception that zinc is a substitute for ORS. ▶



Prominent paediatricians Professor Golam Muin Uddin (from left), Professor M Shahidullah, Professor Syed Khairul Amin, National Professor M R Khan and Professor Nazmun Nahar are seen at the information sharing workshop of SUZY project. National Professor M R Khan chaired the session

After having the series of successful workshops with the leading paediatricians and academics of medical colleges across the country the SUZY project planned to move to the public sector medical colleges to orient the intern doctors. The SUZY team designed seminars with the paediatricians, doctors of internal medicine department and all intern doctors of different public medical colleges of Bangladesh outside Dhaka with special focus on updating the future paediatricians of the country.

The project has already started implementing its plan with the active collaboration of its production partner, the ACME Laboratories Ltd, and has conducted seminars at Mymensingh Medical College, Shaheed Ziaur Rahman Medical College in Bogra, Rangpur Medical College and Dinajpur Medical College.

Zinc treatment can save lives of an estimated 50,000 children every year in Bangladesh

The number of participants at each seminar was beyond expectation. Principals and directors of the medical colleges were present in the seminars of their respective medical colleges. Both junior and senior doctors were very enthusiastic to learn about the details of zinc and the use of zinc in treatment of childhood diarrhoea. The doctors in each of the medical colleges created an exciting learning environment during the two hours session of the seminars. In some case the discussion continued for a longer period than initially planned. The paediatricians actively participated in those sessions and helped their juniors in learning and expressed strong support in favour of zinc treatment in childhood diarrhoea.

The participation of senior officials of ACME Laboratories helped to answer queries of the doctors in many instances. The support of the field staff of ACME Laboratories was also mentionworthy.

The SUZY team is going to Faridpur Medical College and Comilla Medical College with the same programme very soon. ■

SUZY training for village doctors and drug sellers on treating childhood diarrhoea with ORS & Zinc

As in other developing countries, Bangladesh has a high prevalence of diarrhoea especially among children. Every year, 20% of children under the age of five who die, do so from illnesses associated with diarrhoeal diseases. In addition, many children experience an average of three to four diarrhoeal episodes per year.

In most diarrhoeal cases, caregivers prefer either home remedies or seek advices from the unlicensed health care providers. Research, conducted by the SUZY project, has found that among the children suffering from diarrhoea, of the patients, who have sought healthcare, some 42% of them consulted with drug-sellers in the urban slum and 40.9% went to a village doctor/drug seller in the rural areas.

Zinc treatment can prevent future episodes of diarrhoea, but the zinc treatment must last 10 days

The village doctors and drug sellers are unlicensed allopathic health care providers (UAHCPs) who practice in

private sector. These rural medical practitioners, popularly known as 'Gram Dactar' or 'Palli Chikitshak', are the most common source of "first contact" care in Bangladesh and they are ubiquitous not only in rural areas but also in urban and semi-urban localities.

These providers have various levels of training and have received no formal education to practice allopathic medicine. Although some have received semi-formal training through a short-lived government sponsored program that ended in 1982 and some have informal training of one week to few months.

Considering the fact that they might have lack of knowledge and skills on current practices in the management of childhood diarrhoea, the SUZY project planned to provide training to these private sector providers.

The team contacted the Village Doctor Welfare Association (VDWA), a large social organization with more than 100,000 UAHCP registered members. In collaboration with this association, the SUZY training ▶





A village doctor is providing health service to a child

team produced a series of half-day training sessions on use of zinc in addition to oral saline for under-five children with diarrhoea in line with the jointly recommended diarrhoea treatment guideline by World Health Organisation (WHO) and United Nations Children's Fund (UNICEF). The team also developed training materials for the village doctors including booklets, information sheets, posters and video docu-dramas.

Selecting at least two village doctors from each thana (sub district), the SUZY training team provided Training of Trainers (TOT) to more than 1100 members of the association from all over Bangladesh who would train their colleagues in their respective areas.

In the training sessions that continued for around four hours, the participants were provided with information on diarrhoea, dehydration, treatment of dehydration at the community level, treatment of diarrhoea and the benefits of using zinc along with ORS in treating diarrhoea among children from 6 months to 5 years.

The end of each session featured instruction on the frequently asked questions (FAQ), collected by the formative research team. The FAQs

were shared with the village doctors/ drug sellers along with the answers. The participants were also given the opportunity to ask their questions. The participants interacted with high interest in this discussion part and asked different type of questions. The

The Bangladesh Government has revised the national diarrhoea treatment guideline incorporating use of zinc in it for the treatment of under-five children suffering from diarrhoea

unlicensed providers had numerous misconception on the treatment of diarrhoea, which the training team corrected and clarified in a supportive setting.

The SUZY team considered repetition of information, especially the key messages, through different medium and instrument of message delivery for better retention of information by the UAHCPs. For visual impact of the messages the participants were shown the video docu-dramas on zinc treatment for childhood diarrhoea in conjunction with ORS. Keeping in mind that the village doctors/drug sellers are the major health care providers in both urban and rural regions, the village doctors

and drug sellers have been included as significant characters in both docu-dramas. The dramas show that the village doctor/ drug seller is providing zinc, in addition to oral saline, to the parents of the sick children. The village doctors enjoyed the docu-drama a lot because it reflected the reality of their lives and working conditions.

The training team also designed pre-tests and post-tests to evaluate the participants' understanding and immediate retention of knowledge gained. But the participants did not feel comfort to answer the same questions four hours apart. Thus, the team stopped administering the pre-test after first four sessions. However, the result of first four sessions of almost 180 village doctors/drug sellers shows that:

- Around 90% UAHCPs could answer that zinc can be used for treating childhood diarrhoea.
- Only 37% could correctly stated the dosage and course of zinc treatment during diarrhoea.
- In answer of the question, "zinc can be used as a substitute of ORS in treating diarrhoea" 47% answered "yes" and 11% did not respond.
- On the benefits of using zinc during diarrhoea 47% participants gave incorrect answers and 11% did not respond.

During post-test 99-100% of the UAHCPs responded correctly to all questions.

The participants were enthusiastic to learn something new. In each session the number of participants exceeded the previous day's attendees.

Since the initial training programme, the VDMA has started a training programme for its 3000 members under the auspices of the SUZY project. The members of the association, who received training from the SUZY training team are conducting this training programmes for their contemporaries in 30 districts of Bangladesh with 100 participants in each session. ■

Mass media promotion on zinc treatment through BTV & Bangladesh Betar

In an effort to promote the use of zinc in addition to oral saline for the treatment of childhood diarrhoea, the SUZY project along with its mass media partner, Dhansiri Media Production House, produced programmes for the electronic media. The programmes are being aired on the state-owned television channel Bangladesh Television (BTV) and radio station Bangladesh Betar.

ORS and zinc can play a very important role as a lifesaving treatment of childhood diarrhoea

on child health. The programme is entitled "Baby Zinc *Shonamoni*." This 13-episode health show is being aired on Bangladesh Television every Tuesday. Each episode deals with a different child-related issue. Besides

interviews with celebrity parents regarding their children.

The programme also highlights information on children's products like toys, books, clothing, and furniture as well as amusement parks for entertainment of children in its "Lifestyle Guide" section. Anchored by popular TV artiste Tania Ahmed, the health show has another section named "Home Video." The clippings telecast in this section have been collected from parents who informally captured their children's funny and sweet moments on video camera at home.

To capture the attention of radio listeners, the project developed a



Director of Dhaka *Shishu* (children) Hospital Professor M Salim Shakur and Scientist of Clinical Sciences Division of ICDDR,B Dr S K Roy are seen at the discussion session of 'Zinc & Diarrhoea' episode of TV health programme "Baby Zinc Shonamoni." Popular TV artiste Tania Ahmed anchored the programme.

Considering the wide network of these two public sector channels in Bangladesh, the SUZY team preferred to broadcast the programmes on these channels to spread the benefit of zinc treatment in conjunction with oral rehydration solution (ORS) for diarrhoea among under-five children to every corner of the country. These two networks will reach the largest volume of viewers and radio listeners.

For the television viewers, the project has developed a health show focusing

diarrhoea and zinc, the other topics of the programme are child friendly environment, child psychology, education, entertainment, nutrition, hygiene, games, vaccination, disabled children, junk food and crowded population.

Each episode of the health show has a discussion segment (like a talk show) with two experts on the topic of that day, interviews with parents from both low income and middle income groups on childcare and also

24-episode programme "Baby Zinc *Hashi Khushi Shishu* (Baby Zinc Happy Children)." The programme is comprised of popular songs and a 24-episode drama serial with messages on childhood diarrhoea, ORS and zinc. The last section of each episode of the programme is a question and answer session, during which eminent paediatricians in the country reply to the questions on childhood diarrhoea sent in by the listeners. The following page depicts these frequently asked questions along with the answers. ■

Frequently asked questions on zinc treatment for childhood diarrhoea

How does zinc work in diarrhoea?

Zinc is vital for a wide range of biological functions. In diarrhoea, we have come to know that, zinc helps in the following ways:

- a. It boosts up the immune system
- b. Helps in healing the intestinal lining
- c. Improves absorption of fluids

Children of what age should be treated with zinc for diarrhoea?

Children from 6 months to 5 years should be treated with zinc in diarrhoea.

What is the dose of zinc in treatment of childhood diarrhoea?

The recommended dose of zinc for children of 6 months to 5 years is 20mg zinc (one tablet) once daily for 10 consecutive days.

At what stage of the diarrhoeal episode should zinc be administered?

The earlier that zinc is administered, the sooner the child will benefit. However, it can be started at any time in the illness.

Can zinc be used instead of oral rehydration solution (ORS)?

Zinc should never be used instead of ORS for the management of diarrhoea. Zinc supplementation is a new addition to the diarrhoea management guidelines, not a replacement for oral rehydration solution. ORS is vital to prevent or reverse dehydration. Zinc helps to decrease the duration and severity of the diarrhoea, but does not prevent or treat dehydration. The combination of ORS and zinc therapy in conjunction with continued feeding will shorten the duration of the episode, and prevent diarrhoea induced malnutrition.

Between zinc and ORS which one should be given first?

During diarrhoea ORS should be given first and followed by zinc.

Can zinc be given by mixing it with juice, ORS, breast milk or any other liquids?

The zinc tablet is meant to be dissolved in water. However, a spoonful of ORS or breast milk can replace spoonful water. Other fluids are not recommended.

What should be done if the child vomits after giving zinc tablets?

If the child vomits after giving zinc wait for one hour. If there is no further vomiting give the child another dose of zinc.

What should be done if the child misses a zinc dose?

Give the zinc the next day and continue for the full 10 days of zinc.

Should a child be given another course of zinc treatment if it experiences a second episode of diarrhoea?

Yes, all episodes of diarrhoea should be treated with zinc. Even if a child has recently completed a full course of zinc treatment it is still safe to give a second dose.

Does zinc work similarly to a vaccine for diarrhoea?

No, vaccines target specific pathogens causing diarrhoea, while zinc is a more general remedy for all types of infectious diarrhoea.

Can diarrhoea be treated with zinc only?

No, diarrhoea can not be treated with zinc only. Acute childhood diarrhoea should be treated with ORS and zinc. For children with bloody diarrhoea or suspected cholera an antibiotic may also be required.

Can zinc tablet be given to a child without consulting a doctor?

Yes, it is not necessary to consult a doctor to give zinc. Zinc should be given to any child with diarrhoea regardless of the type of diarrhoea. But for children who exhibit severe symptoms such as vomiting or dehydration, it is important to consult a health care provider first.

How many days are required for zinc to cure a child from diarrhoea?

The disappearance of diarrhoea does not mean that the child no longer requires zinc. For the full benefit of zinc treatment, which includes both treatment and prevention, zinc should be given for 10 days.

Can zinc tablet be taken by chewing?

Chewing or sucking is not the recommended mode of delivery. Preferably zinc tablet should be dissolved in water and then administered to the child as a syrup. This will better ensure that the child takes the full dose.