Medical Report
DHARA, Bangladesh
2019

By means of this medical report we would like to give you an impression of the activities during our fourth visit of the Medical Checks for Children team to the DHARA foundation in the Fernado Nobre Hospital in Noabeki, in October 2019.

By collecting all the data and information in our computer we have been able to demonstrate the results in the enclosed tables.

Thanks to enthusiasm of all our mission members, the MCC staff in the Netherlands and especially with the help from the local people we have been able to achieve these results for a lot of the children in the Noabeki region.

With kind regards,

Bert van Wijk
Joep Avezaat
mission leaders
Medical Checks for Children

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Introduction

From October 23 until 29 2019 was the fourth and last mission of Medical Checks for Children to Nowabeki, Bangladesh.
In co-operation with the local Ngo DHARA we could check 843 children in the age of 0 to 10 years.
The checks were in the Fernado Nobre Mother and Child Care and General Hospital in Noabeki, Shyamnagor, Satkhira, Bangladesh

The MCC team was again assisted by the DHARA Youth Support Group, thirteen students of English language studies who were working as translators. They were also were assisting in the carousel system, for example helping at the registration station, or with 'Weighing and Measuring', or at the station where blood was taken and hemoglobin levels recorded.

Like in 2018 we made a extra station in the carroussel to give information on a individual base to the children and their parents in the field of nutrition and hygiene.
Groups wise health education was given in the queue before the carroussel.

The children we wanted to refer to the hospital for diagnostic tests or consultation of specialists we sent twice this week to the hospital in Chatkira. They were going by minibus and accompanied by one of the translators and two of our team members.

The success of this mission was due to the dedication of the MCC team and DHARA team members, and especially Mrs. Lipika Das Gupta.

MCC team
All team members are volunteers and responsible for their own costs for the journey and their stay in Bangladesh
The MCC team was made up of the following team members :

- Joep Avezaat (MD), team leader, responsible for all medical decisions
- Bert van Wijk (care manager), responsible for organizational decisions
- Anneke de Witt (MD)
- Bernardien Thunnissen (MD)
- Diane Wakker (nurse)
- Josine v.d. Meijdenberg (child and youth psychiatrist)
- Leonore Wever (MD)
- Marijke lutjenhuis (former GP)
- Merel van Rijn (student)
- Patrick Nomden (nurse)
- Saskia Bouma (pediatrician)
- Sifra Lodel (nurse trainee)
- Vera v.d. Brink (nurse)

Translators
This year we had again a sufficient number of translators (13), this facilitated our work very much.
The translators were all members of the Dhara Youth Support Group. Some of them helped us in 2018 already, some were new. These new translators were well instructed en prepred for there job by the moere experienced ones.
Before the checks we gave them information about the goals en methods of MCC and we told them about our expectations of a good translator.
The MCC team we gave instruction about how to work with a translator and the do's and dont's.
During the week the teamleaders had evaluations with the translators.
We were very impressed and enthusiastic about their efforts and involvement.

DHARA
The Bangla NGO Development of Health & Agriculture Rehabilitation Advancement (DHARA)
is involved in several projects namely concerning health care, education for deprived children, women's emancipation and social support for the poor and needy. The building of the hospital named in the introduction was made possible by DHARA.
The founder and director of DHARA is Mrs. Lipika Das Gupta.

Region

Noabeki lies in the southwest of Bangladesh in the region Satkhira about four hours drive from the town of Jessore. It is a poor area regularly hit by cyclones and floods. Since the most recent cyclone, Aila , in 2009 , arable farming has not been possible due to saline deposits in the ground.
Since 2012 rice crops have once again been able to grow, although some areas are annually flooded by salt water. There is just one harvest each year. Also in this area there are a number of fish and shrimp farms.

MCC carrousel

All children were checked in the so-called MCC carrousel.
Within this model children are measured in height and weight, the level of haemoglobin (Hb) is measured via a finger prick and drop of blood. Other tests are possible, including measuring the percentage of oxygen in the blood, blood pressure measurement, and urine testing. After these tests the children are physically examined by one of the doctors. If necessary the child gets an antiworm tablet (albendazol) and other medication.

Medication and treatment

The medication was ordered by DHARA on behalf of MCC who paid for the medication.
Each child received a toothbrush (with instruction how to use it) on leaving the location. The tooth brushes were donated.

Results

Amount of children:
In total we could check 843 children.
As in previous years children came from different, sometimes remote, villages.

Atulia	114
Biralaxmi	109
Borokupot	66
Chotokaput	57
Godana	25
Hawalrangi	29
Kashimari	23
Nowabeki	144

Table 1. number of children from the 8 most important villages

Age and gender of the children:
Younger children are more vulnerable than older children that is why we wanted to check as much younger children as possible.
16% of all the children checked was 1 year old or younger and 61% was 5 years or younger.
We saw some more boys than girls (55% - vs. 45%).

Caretaker
It is important that children are accompanied by one of the parents or a caretaker, because so we can get a better anamnesis and we can give information about the treatment etc.
We were very happy that all children were accompanied by an adult.

School
Almost all of the children older then 5 years is visiting a school.

Checked las year?
Only 12% of the children we saw this year were checked in 2016 as well. So it was not possible to compare the results on a individual base.

Anemia
A frequent and main problem in developing countries is anemia.
There are many reasons that are responsible for its cause. The most frequent cause is due to iron and vitamin deficiency through an unvaried diet, chronically infections such as worm infections, tuberculosis and other chronic infections.

27% of all children had anaemia. There was no significant difference in prevalnce of anemia between boys and girls (27 vs 26%).
Only 2 children had serious anaemia, with a hemoglobin level under 5 mmol/l. These children were referred to a hospital or advised to have checked their blood after 3 months.

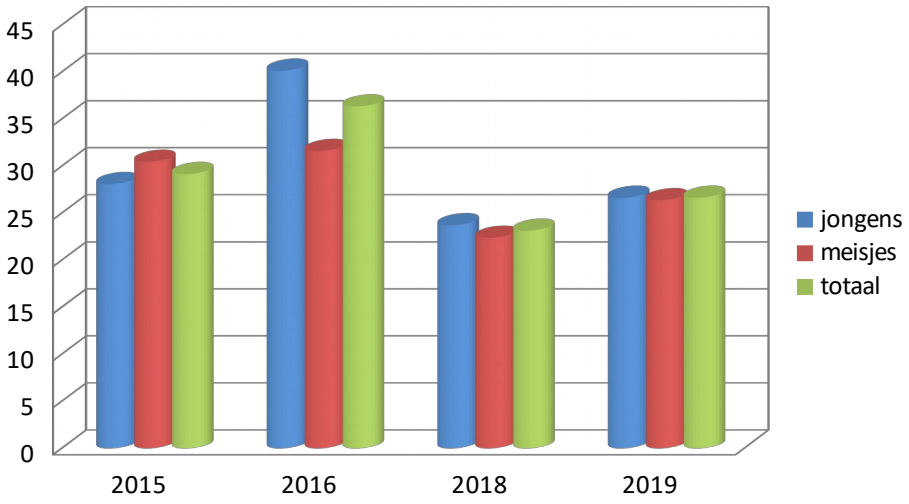

Figure 1. anemia by gender and year

Growth disorders

Growth is an important parameter when assessing the health of a child. In the MCC carousel measuring height and weight takes an important place.
The height and weight need to be in line with the age of the child. The prevalence of growth disorders is an indicator of poverty, poor nutrition, poor living conditions, inadequate hygiene and chronic disease in the population. It is important to note that the exact age of the child is very often unknown to parent and child in this area.
The following criteria were used:

- Underweight: weight corresponding to age on or below the third percentile (P3) of a reference population. (WHO growth curve, available for children under ten years of age) This is an indication of malnutrition or weight loss due to disease.
- Stunting: height corresponding to age on or under P3 of a reference population (WHO growth curve available for children up to 19 years of age). This indicates chronic malnutrition.
- Wasting: weight corresponding to height on or under P3of a reference population. (WHO growth curve is available for children up to 1.20 cm tall). This is an indication of acute malnutrition.

All children with growth retardation were given a multivitamin preparation for three months.

Underweight was indicated in 30% of the children. (boys: 32% girls: 29%).
Stunting indicated in 30% of the children . (boys: 31% girls: 29%).
Wasting was present in 16% of the children. (boys 17% girls: 16%).

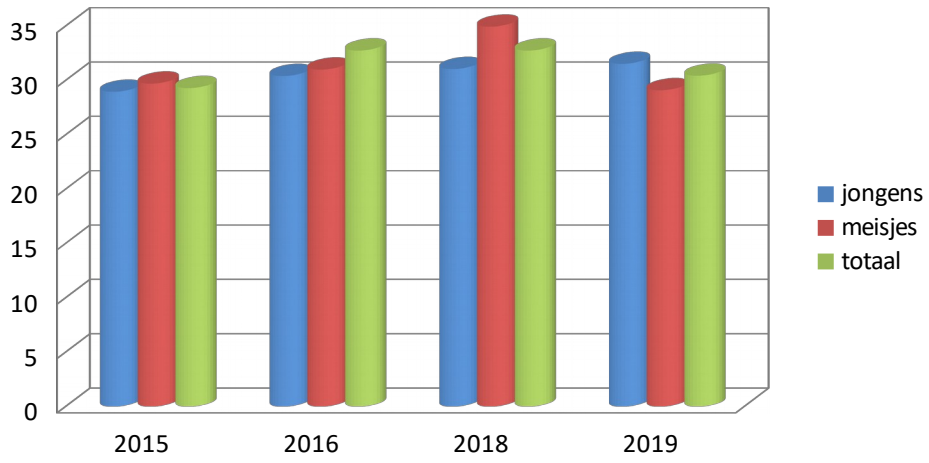

Figure 2. underweight per gender and year

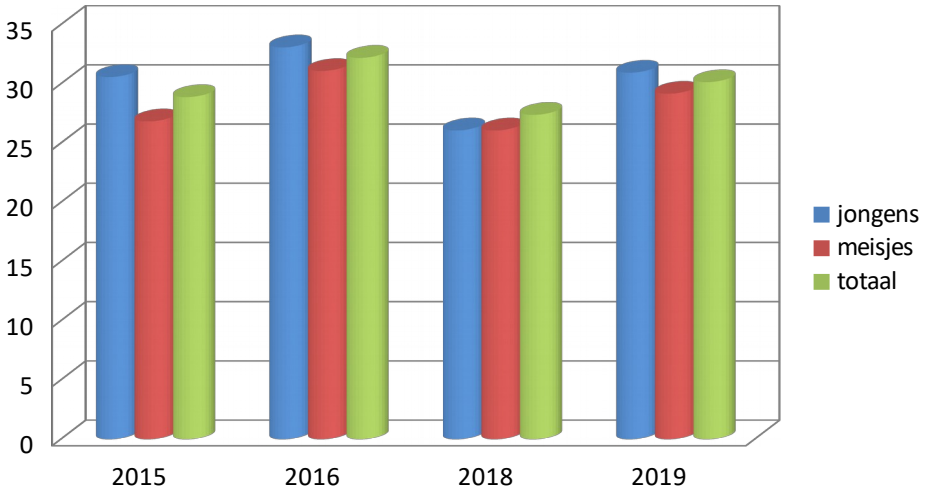

Figure 3. stunting by gender and year

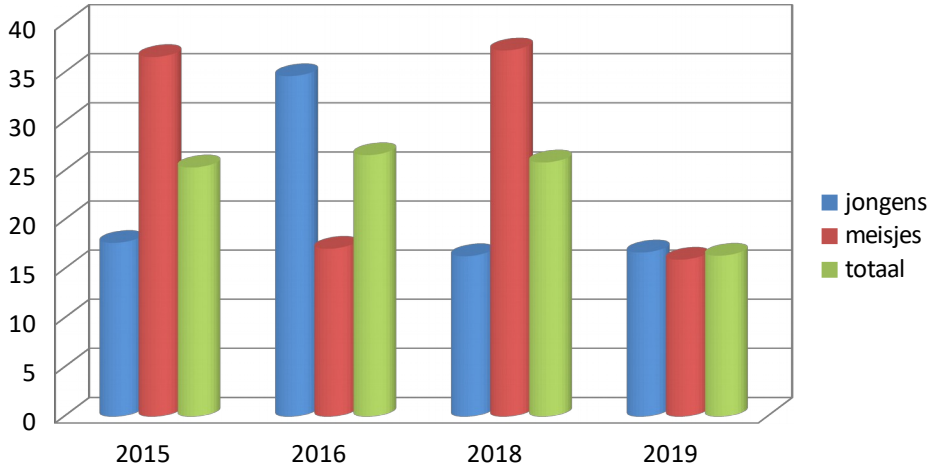

Figure 4. wasting by gender and year

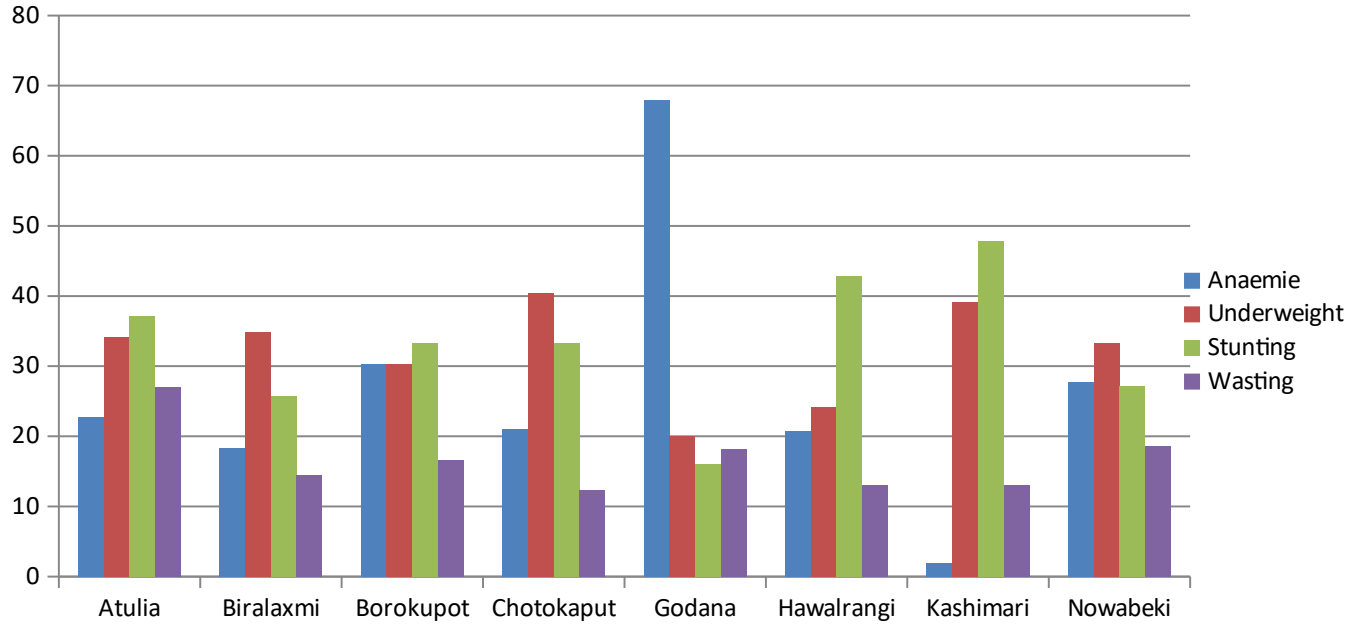

Figure 5. anaemia, underweight, stunting and wasting by location 2019

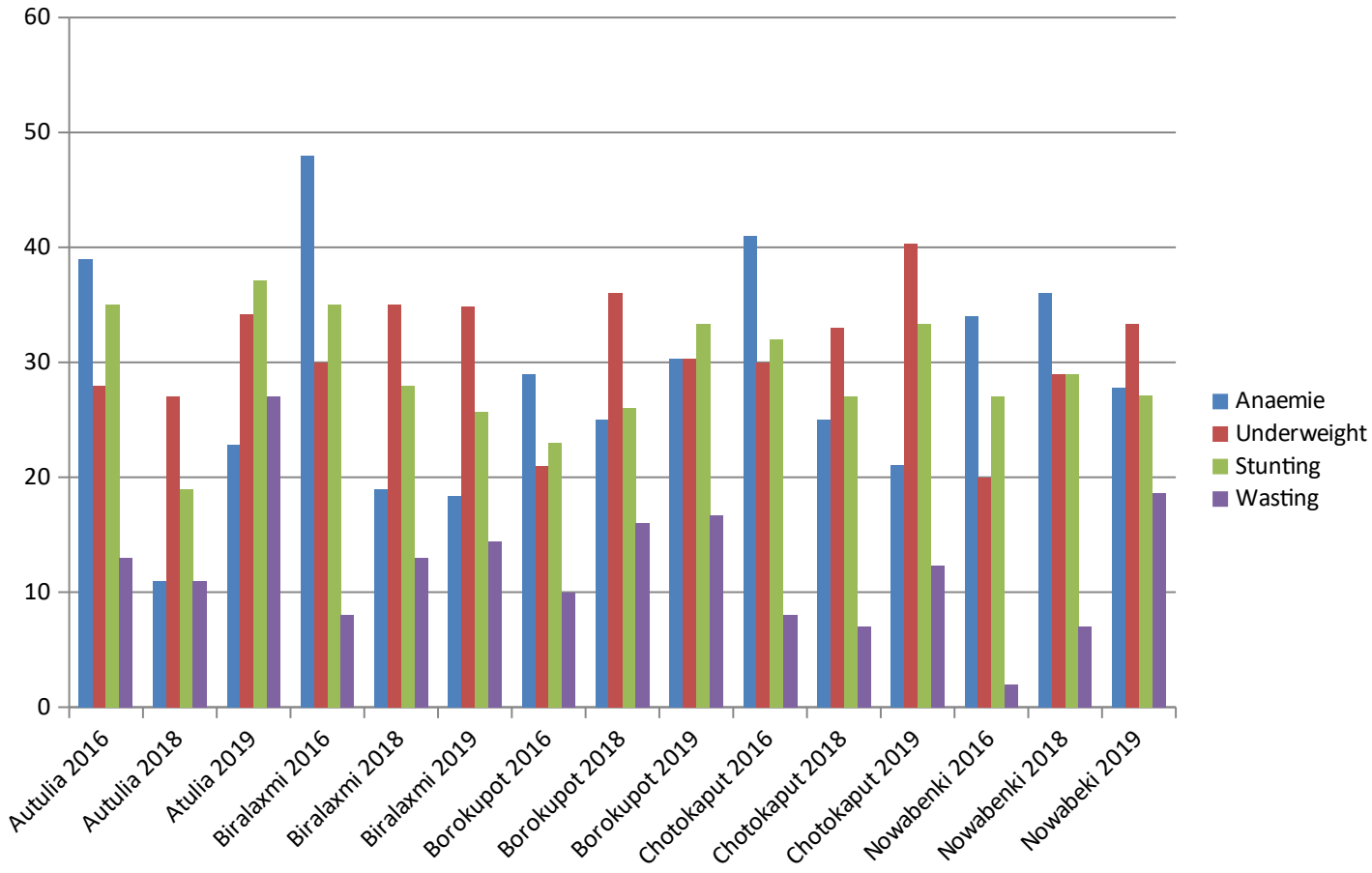

Figure 6. anaemia, growing disorders per location in 2016, 2018 and 2019

It is impossible to draw conclusions from the figures above because most children we have checked came or the first time and the number of children from the different villages is sometimes small (for instance Chocokaput 25 children in 2019).

Worm infections

Worm infections occur frequently throughout the world, mostly in developing countries. The prevalence of worm infections is related to poor hygiene conditions. (Faecal contamination of hands and food etc.) Very often these infections result in no complaints. When a child has many worms in his gut, this can lead to pain and discomfort and bloating of the abdomen.
Malabsorption, where nutrients are not taken up in the gastrointestinal tract and chronic blood loss can lead to anemia, malnutrition and growth disturbances.

The World Health Organisation (WHO) recommends that all children in these areas receive twice a year an anti-worm treatment (albendazol) as a preventative measure.
The government of Bangladesh is responsible for providing this medication. MCC gives an anti-worm tablet to every child that has not received one in the last 6 months; this tablet is taken by the child on the spot.
Children displaying symptoms of an active worm infection are given a course of Albendazol.
We diagnosed 32 times (4%)an active worminfection (2018: 16%).
48% of all children did not had antiworm prevention the last six month.(2015: 71%, 2016: 58% 2018: 52%) This is an improvement comparing last years, but still this percentage is to great and we can conclude that the worm prevention program does not reach enough children in this region.

Teeth

During MCC missions we always see a lot of children with dental problems.
These problems are caused by:

1. inadequate dental hygiene: most children brush their teeth only one time a day (morning) and their brush technic is insufficient.
2. eating/drinking too much sugar and sweets.
3. bad construction of the teeth due to vitamin deficiency and malnutrition of the mother during pregnancy.

In this mission 43% (2018 39%) of all children had dental caries (300 children)
43% of this children had also dental pain.

Referrals

Ten children (1%) were referred to a specialist in a hospital.
Most parents didn't had the money to pay the specialist and even they did not had the money to pay for the bus to Shatkhira, were the hospital is.
During the check week we hired therefor two times a microbus to bring these children to Satkhira. Two MCC teammembers and a translator accompagnied them to the hospital to visit a specialist or for Ct scan, X-ray etc.
For one boy with vision problems we could immediately provide glasses after his visit to the eye specialst.

Health education

From the previous missions we learned:

- almost everybody knows that brushing teeth is necessary but it is practiced only once a day: in the morning
- rice is the staple food and is eaten 2-3 times a day
- most children eat at least once a week fish, some more frequently.
- meat is less available
- vegetables are plenty available for almost everyone but most children eat vegetables only once or twice a week
- when we asked why they don't eat more often vegetables people tell that this is not their habit and that the children don't want to eat more vegetables
- like in our country there are a lot of parenting problems concerning nutrition: children are reluctant to eat vegetables, they want sweet, does not eat fruit etc
- a lot of children don't drink much, probably this is one of the causes of obstipation

This year again we created an extra station in the MCC carrousel te give healtheducation.
Every child with anemia, growing disorder and/or complaints about eating was referred to this station by the doctor.
Here information on food and parenting items was given in an interactive way both to individuals as to small groups of parents.
The dietician who was part of the MCC team in 2018 shared here findings and experience to instruct the team mmbers who gave this education.
Also health education was given in the qeue waiting to enter the carrousel.

At last

From 2015 until 2019 there were four MCC missions to Nowabeki. In total we could check and treat 3326 children under the age of 10. We tried to make all these children and their accompanying adults (mostly parents) aware of the impact of food and hygiene on the health, growth and development of the children. This was done by education both individual as group wise.
We also could give information to a number of parents of children with congenital disabilitys (most neurological) about the child's disease; these parents didn't had information from the doctors in Bangladesh. It helped them with understanding and accepting the disabilitys of their children.
Besides this, and we didn't realize that on beforehand, the missions had also an effect on the translators/students that helped us with the checks. For many of them it was the first time that they took note of the needs and health problems of the poor rural residents.
On the other hand: due to infrastructural problems we don't expect that there are possibility's for the local people to continue with the checks or parts of it or health education. And in addition it turned out to be impossible to give a proper follow up to children that needed further treatment in hospital for example children with heart problems who needed a operation in the capital Dhaka.
This was caused by two main problems. First of all DHARA did not succeed to take a doctor employed in the hospital. Only some times a week a doctor comes to the hospital for consultations during a few hours or for an operation. So there is no manpower to set up structural health programs.
Second: the headquarters of DHARA are settled in Jessore about 4-5 hours driving by car from Nowabeki. Particalar for the children who needed follow up treatment this was a obstacle, because the communication failed.
These were the reasons that we decided not to continue with this missions.

Aknowledgements

We would like to take this opportunity to express our gratitude for all the cooperation and support we have been given and which made these missions possible.
On the first place, to Mrs Lipika Das Gupta, director of DHARA, her husband and her team, who were working very hard to make this MCC mission possible and whose hospitality was an enormous support for the MCC team.
Also we thank the translators, the Dhara Youth Support Group, who did their job tireless and with compassion for the children.

Furthermore we would like to thank the MCC workgroup "Missie Voorbereiding".

Finally we would like to thank all our great team members for their enthousiastic dedication.

Februari 2020

Bert van Wijk
Joep Avezaat
mission leaders