Medical Report DHARA, Bangladesh 2015



By means of this medical report I would like to give you an impression of the activities during visit of the Medical Checks for Children team to the DHARA foundation in the Fernado Nobre Hospital in Noabeki, in Januari/February 2015.

This was the first time that a MCC team was in this region to check children. By collecting all the data and information in our computer we have been able to demonstate the results in the enclosed tables.

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

With Kind regards,

Joep Avezaat mission leader Medical Checks for Children



Index:

- Introduction
- Results
- Recommandations
- Aknowlegdements
- Attachments

Introduction

Between the dates 27 th January and 4 th February 2015 the Medical Checks for Children (MCC) team was able to carryout medical examinations and necessary treatments of 936 children from 0 to 10 years of age in the Fernando Nobre Mother and Child Health Care Centre and General Hospital in Noabeki, Shyamnagor, Satkhira, Bangladesh.

This was the first, explorative, mission at this location.

The mission took place at the request of and together with the co-operation of DHARA, a local nongovernmental organization (NGO) situated in Jessore.

The necessary equipment and materials to allow examination of the children were made available by MCC. This was once again well organized by Els Kalsbeek.

Parents and children were made aware of MCC 's visit to the area by a public address system mounted on an easy-bike or tuktuk which travelled the local vicinity making an announcement.

The response was overwhelming, so much so that it was not possible to check all the children who arrived daily at the hospital gates eager to be seen. Crowd control became an unforeseen problem and a sometimes impossible task despite best efforts of all involved.

MCC team members had collected money before the mission took place, and this sum of money was doubled in value through Stichting 2015 Hardenburg. With this money local purchases of toothpaste, toothbrushes and tablets of soap were made, and every child received an item of each on leaving the checking location.

The translators were also paid out of these funds.

These translators were arranges by Mrs Lipika including students of English. They carried out their duties with humour, enthousiasm and compassion.

This mission has been able to give an impression of the standards of health within the population of children and associated problems.

A brainstorming session took place on completion of this mission together with Mrs. Lipika Das Gupta on the future of further missions.

MCC team

All team members are volunteers and responsible for all their own costs for the journey and their stay at the Fernando Nobre Hospital.

The MCC team consisted of the following team members: -

Joep Avezaat, mission leader and locum general practioner(GP)

Alex Tiggelaar, GP

Hetty Garrelfs, dentist

Piet Spoestra, GP

Marga Vintges ,GP retired

Marijke de Bont, child health clinic doctor, retired

Marijke Lutjenhuis, GP retired

Annette Pilgrim, midwife retired

Anne Moore, child health clinic nurse

Margreet Luger, fracture clinic/plaster nurse & wound management

Corrie Spoelstra, high school teacher, retired,

Bert van Wijk, care manager

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.

She made this mission possible through her commitment and enormous contribution.



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 possible include measuring the percentage of oxygen in the blood, blood pressure measurement, and urine testing. After these tests the children are physical examined by one of the doctors. If necessary the child gets an antiworm tablet (albendazol) and other medication.

Children visited the dentist on indication (dental pain).

Medication and treatment

The medication was ordered by DHARA on behalf of MCC who paid for the medication and most of which was available on commencement of checking

Each child received soap, toothpaste and brush on leaving the location.

Health education

Each individual child and her/his carer was given advice and education on nutrion and (dental) hygiene by the doctor and eventual by the dentist.

As parents and children waited to be seen health education was given, mainly advice on hygiene and nutrition as healthily as possible and caring for teeth, but due to the shortage of translators the opportunities were limited

During this week two team members held a training programme for twenty traditional birth assistants (TBA's)- these are local women who assist during birth but who have little or no training, and of whom the most are illiterate.

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.

Political situation

The political situation in Bangladesh at the time of the mission was very unstable. The opposition party called for general strikes (hartals) on a regular basis whereby the public transport systems were mainly affected. This was a major consideration for the MC team.

On arriving in Dhaka some members of the team were unable to carry on their journey to Jessore as planned, being forced due to safety considerations to delay their journey by two days and consequently resulting in the mission starting a day later than originally planned. Secondly, due to the hartals it was not possible to venture out of the hospital compound to carry out checks in surrounding villages. Thirdly, translators that were expected on location preferred not to travel resulting in too few available translators.



Results

For detailed results we direct you to the tables enclosed.

Amount of children:

Table 1.

In total we could check 936 children, mainly from the village Noabeki.

Also from nearby villages children came for a medical check, but their amount is to smal to draw conclusions.

For the sake of completeness you will find the numbers per village in the tables enclosed.

Age and gender of the children:

Table 2.

Since children under the age of 5 years are the most vulnerable we want to check as much younger children as possible.

46% of all the children checked was under 5 years of age.

we saw some more boys than girls (55 - vs. 45%).

Caretaker

It is impotant that children are accompanied by one of the parents or a caretaker, because so we can get a better anamnesis and can give information about the treatment etc. We were very happy that 97% of all children was accompanied by an adult.

School

81% of all boys at the age of 5 years or older are going to school, 82% of the girls does so.

Anaemia

Table 3.

A frequent and main problem in developing countries is anaemia.

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.

In table 3 the children with anaemia are divided into location, age and sex.

Of all children 28% was anaemic, boys as much as girls.

In children under 1 year 44% had anaemia (N=74)

Children with anaemia, depending on whether this was accompanied by a growth disorder or vitamin deficiency, were given a three month supply of iron and or a vitamin medication. The mothers of breastfed children were given iron medication.

Nine children (3% of all anaemic children) had serious anaemia, with a haemoglobin level under 5mmol/l.

Growth disorders

Table 4: weight/age

Table 5: weight/length

Table 6: length/age

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 of 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:

• <u>Underweight</u>: 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.



- <u>Wasting</u>: 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.
- <u>Stunting</u>: 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.

All children with growth retardation were given a multivitamin preparation for three months. Underweight was indicated in 22% of the children, range 23 - 40% in different locations. Wasting was present in 15% of the children, range 12 - 35% at different locations. Stunting indicated in 24% of the children, range 24% - 40%, at different locations. For a number of children there was no reference value available.

Worm infections

Table 7.

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 anaemia, 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. Since 71% of the children that we checked this week did not had a anti worm tablet the last six month we can conclude that the worm prevention program did not reach many children in this region.

Prevalence of diseases

table 8.

Respiratory Tract/Airways

Nine children (1%) were diagnosed with a infection of the lower airways (pneumonia, bronchitis). These children received a course of antibiotics, with instructions given to their parents or carers.

Two children had asthma.

Heart Disorders

One child was diagnosed with a pathological murmur, indicating a heart defect. This child has been to a hospital already and was suspected to have a VSD, but no treatment or follow up had occured.

The oxygen saturation of this child was not good and he was referred to the hospital in Satkhira. There it was not possible to make a cardiac echo, necessary for the diagnose. We adviced to go to a hospital Jessore, but the parents did not have money for the journey and nor for the echo. We gave the money for these, people from the union in teir neighbourhood promised to pay attention that the money is spent for this. Later we will hear the results of the tests via Mrs. Lipika and we can try to arrange a operation if necessary.

Gastro-intestinal complaints

Two children were suspected to have a active worminfection.

A lot of children had complaints about obstipation (not consistently recorded), mainly due to alimentary problems (see below), they and and their carers were given advice on this matter.



Ear- Nose- Throat

Seven children had a acute ear infection (otitis media), ten a chronic ear infection and eight children had a infection of the external ear.

Dermatology

About 2 % of the children had eczema and the same percentage was daignosed with mycotic infections of the skin.

Scabies was seen in 13 children (1%), unfortunately there was not enough medication to treat all these children and their families as is required in scabies treatment.

Eye

Six children had strabismus

We saw very few eye problems. In principle the MCC carousel model does not have the facility to detect visual disturbances.

Urinary tract

In seventeen children (2%) we diagnosed a urinary tract infection for which a course of antibiotics was given.

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 to much sugar
- 3. bad construction of the teeth due to vitamin deficiency and malnutrition of the mother during pregnanacy

In this mission 34% of all children had dental caries (312 children)

54% of this children had also dental pain.

Hundredseventy children (18% of all checked children) were checked and treated by our MCC dentist.

Neuromusculair

Numerically children with neurological problems are not a big problem, but amongst them there are always some with severe handicaps. Their parents often come to MCC hoping that we can cure their child where other doctors failed.

We gave these children extra time for a good anamnestical en fysical examination.

If we were convinced that there were no possibilities to cure this child, we considered it our duty to explane that to the parents to avoid vain and expensive consulting specialists without taking away all hope. Also we tried to give advice on care for their handicaped son or daugter.

Knowing that there are very few possibilities for these children in Bangladesh was for all team members an emotional burden.

Eighteen children with psychomotoric retardation were seen (2%).

One child had a spina bifada, that was already diagnosed.

One child had epilepsy with frequent convulsions probably due to inadequate medication. We adviced the parents to go again to tehir specialist.



Referrals

As mentioned: children hundredseventy were referred to the MCC dentist

Children referred to specialist other than dentist 2011

| Sex + age | Reason for reference |
|----------------|---------------------------------|
| boy, 8 years | severe anemia: Hb check 3 month |
| boy, 1 years | severe anemia: Hb check 3 month |
| boy, 10 years | cryptorchisme |
| girl, 7 years | prob.VSD |
| boy, 5 years | cryptorchisme |
| boy, 0,7 years | severe anaemia |
| boy, 3 years | phimosis |
| boy, 1 year | neurological symptoms |

Hygiene and nutrition

From the intervieuws with children and their cares the following conclusions could be drawn

- almost everybody knows that brushes 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 dont you eat more often vegetables people tell that this is not their habit and that the childen doesnot 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 does not drink much, probably one of the causes of obstipation



Recommandations

- The worm prevention: does the government run a program on this item, if yes; why so many children didn't have worm prevention the last six month? Can DHARA contribute to solve this problem maybe in cooperation with the schools?
- More education, not only on hygiene and nutrition but maybe more important on parenting problems concerning eating pattern of children (and adults).
- MCC can help DHARA to give training on this issues to healthworkers and keyfigures in the local community's
- More educutional activity's during the MCC checks
- Improvement of health and condition of pregnant women.



Aknowledgements

I would like to take this opportunity to express my gratitude for all the cooperation and support we have been given and which made this mission possible.

On the first place, to Mrs Lipika Das Gupta, director of DHARA, and her team, who were working very hard make this MCC mission possible and whose hospitality was an enormous support for the MCC team.

Also I thank the translators, who did their job tireless and with compassion for the children

Furthermore I would like to thank Els vd Kalkhoven for preparation the materials we took with us on this mission and Emile Clous for his analyses of the data.

Lastly I would like to thank our team members for their enthusiastic dedication.

March 2015

Joep Avezaat mission leader



Attachment

Table 1: Number of checked children per day and geographical location

| | 28-01-15 | 29-01-15 | 31-01-15 | 01-02-15 | 02-02-15 | 03-02-15 | Total |
|-------------|----------|----------|----------|----------|----------|----------|-------|
| Atulia | 1 | 2 | 7 | 21 | 12 | 3 | 46 |
| Biralaxmi | 0 | 0 | 8 | 34 | 21 | 14 | 77 |
| Boro Kupot | 4 | 3 | 12 | 19 | 5 | 7 | 50 |
| Choto Kupot | 0 | 8 | 2 | 8 | 7 | 3 | 28 |
| Noabeki | 148 | 174 | 56 | 109 | 91 | 89 | 667 |
| Overige | 6 | 4 | 20 | 19 | 15 | 4 | 68 |
| Total | 159 | 191 | 105 | 210 | 151 | 120 | 936 |

Table 2: Summary of checked children per geographical location, age and gender

| | To | otal | Atuli | Atulia Birale | | xmi | Boro | Kupot | Choto | Kupot | Noa | beki | Ove | erige |
|-------------------|-----|------|--------|---------------|--------|-----|--------|-------|--------|-------|--------|------|--------|-------|
| | 9 | 36 | Total= | 46 | Total= | 77 | Total= | 50 | Total= | 28 | Total= | 667 | Total= | 68 |
| Age | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| <=1 year | 169 | 18% | 8 | 17% | 16 | 21% | 11 | 22% | 6 | 21% | 106 | 16% | 22 | 32% |
| >1 en <5 years | 262 | 28% | 17 | 37% | 22 | 29% | 11 | 22% | 11 | 39% | 189 | 28% | 12 | 18% |
| <5 years | 431 | 46% | 25 | 54% | 38 | 49% | 22 | 44% | 17 | 61% | 295 | 44% | 34 | 50% |
| >=5 en <=10 years | 502 | 54% | 21 | 46% | 39 | 51% | 28 | 56% | 11 | 39% | 369 | 55% | 34 | 50% |
| >10 years | 3 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 3 | 0% | 0 | 0% |
| Gender | | | | | | | | | | | | | | |
| Воу | 511 | 55% | 25 | 54% | 52 | 68% | 27 | 54% | 14 | 50% | 348 | 52% | 45 | 66% |
| Girl | 425 | 45% | 21 | 46% | 25 | 32% | 23 | 46% | 14 | 50% | 319 | 48% | 23 | 34% |



Table 3: Prevalence of anaemia per geographical location by age and gender

| | To | otal | Ato | ulia | Biral | laxmi | Boro | Kupot | Choto | Kupot | Noc | ıbeki | Ove | erige |
|-----------------------|-----|------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|
| | 9 | 36 | Total= | 46 | Total= | 77 | Total= | 50 | Total= | 28 | Total= | 667 | Total= | 68 |
| | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Anaemia | 265 | 28% | 18 | 39% | 21 | 27% | 10 | 20% | 6 | 21% | 187 | 28% | 23 | 34% |
| No anaemia | 644 | 69% | 25 | 54% | 54 | 70% | 39 | 78% | 22 | 79% | 461 | 69% | 43 | 63% |
| Unknown | 27 | 3% | 3 | 7% | 2 | 3% | 1 | 2% | 0 | 0% | 19 | 3% | 2 | 3% |
| Hb <5,0 mmol | 9 | 1% | 1 | 2% | 1 | 1% | 0 | 0% | 0 | 0% | 7 | 1% | 0 | 0% |
| Anaemia per age | | | | | | | | | | | | | | |
| <=1 year | 74 | 44% | 3 | 38% | 6 | 38% | 5 | 45% | 2 | 33% | 48 | 45% | 10 | 45% |
| >1 en <5 years | 70 | 27% | 11 | 65% | 7 | 32% | 1 | 9% | 3 | 27% | 45 | 24% | 3 | 25% |
| <5 years | 144 | 33% | 14 | 56% | 13 | 34% | 6 | 27% | 5 | 29% | 93 | 32% | 13 | 38% |
| >=5 en <=10 years | 120 | 24% | 4 | 19% | 8 | 21% | 4 | 14% | 1 | 9% | 93 | 25% | 10 | 29% |
| >10 years | 1 | 33% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 33% | 0 | 0% |
| Anaemia per gender | | | | | | | | | | | | | | |
| Воу | 141 | 28% | 10 | 40% | 14 | 27% | 5 | 19% | 4 | 29% | 95 | 27% | 13 | 29% |
| Girl | 124 | 29% | 8 | 38% | 7 | 28% | 5 | 22% | 2 | 14% | 92 | 29% | 10 | 43% |



Table 4: Prevalence of weight/age at or under P3 (underweight) per geographical location by age and gender

| | То | tal | Atı | ulia | Biral | axmi | Boro | Kupot | Choto | Kupot | Noc | ıbeki | Ove | erige |
|------------------------------------|-----|-----|--------|------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|
| | 9: | 36 | Total= | 46 | Total= | 77 | Total= | 50 | Total= | 28 | Total= | 667 | Total= | 68 |
| | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Underweight | 256 | 27% | 15 | 33% | 18 | 23% | 20 | 40% | 5 | 18% | 177 | 27% | 21 | 31% |
| No underweight | 675 | 73% | 31 | 67% | 59 | 77% | 30 | 60% | 23 | 82% | 486 | 73% | 46 | 69% |
| Unknown | 5 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 4 | 1% | 1 | 1% |
| Underweight children per age | | | | | | | | | | | | | | |
| <=1 year | 49 | 29% | 2 | 25% | 6 | 38% | 6 | 55% | 1 | 17% | 27 | 25% | 7 | 33% |
| >1 en <5 years | 74 | 28% | 5 | 29% | 5 | 23% | 5 | 45% | 2 | 18% | 53 | 28% | 4 | 33% |
| <5 years | 123 | 29% | 7 | 28% | 11 | 29% | 11 | 50% | 3 | 18% | 80 | 27% | 11 | 33% |
| >=5 en <=10 years | 133 | 26% | 8 | 38% | 7 | 18% | 9 | 32% | 2 | 18% | 97 | 26% | 10 | 29% |
| >10 years | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Underweight children per gender | | | | | | | | | | | | | | |
| Воу | 130 | 26% | 8 | 32% | 15 | 29% | 8 | 30% | 3 | 21% | 85 | 25% | 11 | 25% |
| Girl | 126 | 30% | 7 | 33% | 3 | 12% | 12 | 52% | 2 | 14% | 92 | 29% | 10 | 43% |

Table 5: Prevalence of weight/length at or under P3 (wasting) per geographical location by age and gender

| | To | tal | - | Atulia | Bir | alaxmi | Bor | o Kupot | Chot | o Kupot | Noa | beki | Ove | rige |
|-----------------------------|-----|-----|--------|--------|--------|--------|--------|---------|--------|---------|--------|------|--------|------|
| | 9. | 36 | Total= | 46 | Total= | 77 | Total= | 50 | Total= | 28 | Total= | 667 | Total= | 68 |
| | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Wasting | 111 | 15% | 5 | 12% | 14 | 21% | 14 | 35% | 4 | 17% | 65 | 13% | 9 | 16% |
| No wasting | 616 | 85% | 36 | 88% | 54 | 79% | 26 | 65% | 20 | 83% | 432 | 87% | 48 | 84% |
| Unknown | 208 | 22% | 5 | 11% | 9 | 12% | 10 | 20% | 4 | 14% | 169 | 25% | 11 | 16% |
| Wasting children per age | | | | | | | | | | | | | | |
| <=1 year | 25 | 15% | 1 | 13% | 5 | 31% | 4 | 36% | 0 | 0% | 9 | 8% | 6 | 29% |
| >1 en <5 years | 34 | 13% | 2 | 13% | 4 | 18% | 3 | 27% | 2 | 18% | 22 | 12% | 1 | 10% |
| <5 years | 59 | 14% | 3 | 13% | 9 | 24% | 7 | 32% | 2 | 12% | 31 | 11% | 7 | 23% |
| >=5 en <=10 years | 52 | 17% | 2 | 12% | 5 | 17% | 7 | 39% | 2 | 29% | 34 | 17% | 2 | 8% |
| >10 years | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0%! | 0 | 0%! | 0 | 0% | 0 | 0% |
| Wasting children per gender | | | | | | | | | | | | | | |
| Воу | 51 | 13% | 3 | 14% | 8 | 17% | 5 | 28% | 3 | 21% | 26 | 10% | 6 | 18% |
| Girl | 60 | 18% | 2 | 10% | 6 | 29% | 9 | 41% | 1 | 10% | 39 | 17% | 3 | 13% |



Table 6: Prevalence of length/age at or under P3 (stunting) per geographical location by age and gender

| | To | tal | - | Atulia | Bir | alaxmi | Bor | o Kupot | Choto | Kupot | Noa | beki | Ove | rige |
|------------------------------|-----|-----|--------|--------|--------|--------|--------|---------|--------|-------|--------|------|--------|------|
| | 9 | 36 | Total= | 46 | Total= | 77 | Total= | 50 | Total= | 28 | Total= | 667 | Total= | 68 |
| | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Stunting | 224 | 24% | 18 | 40% | 16 | 21% | 12 | 24% | 7 | 25% | 152 | 23% | 19 | 29% |
| No stunting | 696 | 76% | 27 | 60% | 61 | 79% | 38 | 76% | 21 | 75% | 503 | 77% | 46 | 71% |
| Unknown | 16 | 2% | 1 | 2% | 0 | 0% | 0 | 0% | 0 | 0% | 12 | 2% | 3 | 4% |
| Stunting children per age | | | | | | | | | | | | | | |
| <=1 year | 55 | 33% | 2 | 25% | 5 | 31% | 5 | 45% | 2 | 33% | 33 | 31% | 8 | 38% |
| >1 en <5 years | 92 | 36% | 11 | 69% | 6 | 27% | 3 | 27% | 4 | 36% | 66 | 35% | 2 | 20% |
| <5 years | 147 | 35% | 13 | 54% | 11 | 29% | 8 | 36% | 6 | 35% | 99 | 34% | 10 | 32% |
| >=5 en <=10 years | 77 | 16% | 5 | 24% | 5 | 13% | 4 | 14% | 1 | 9% | 53 | 15% | 9 | 26% |
| >10 years | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Stunting children per gender | | | | | | | | | | | | | | |
| Воу | 120 | 24% | 12 | 50% | 11 | 21% | 8 | 30% | 3 | 21% | 75 | 22% | 11 | 26% |
| Girl | 104 | 25% | 6 | 29% | 5 | 20% | 4 | 17% | 4 | 29% | 77 | 25% | 8 | 35% |

Table 7: Prevalence preventive anti-worm treatment in the last half-year per aeographical location by age and gender

| | To | otal | Atu | ılia | Biral | axmi | Boro | Kupot | Choto | Kupot | Noa | beki | Ove | rige |
|-------------------|-----|------|--------|------|--------|------|--------|-------|--------|-------|--------|------|--------|------|
| | 9 | 36 | Total= | 46 | Total= | 77 | Total= | 50 | Total= | 28 | Total= | 667 | Total= | 68 |
| | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| Anti-worm | 275 | 29% | 18 | 39% | 20 | 26% | 13 | 26% | 5 | 18% | 199 | 30% | 20 | 29% |
| No anti-worm | 661 | 71% | 28 | 61% | 57 | 74% | 37 | 74% | 23 | 82% | 468 | 70% | 48 | 71% |
| Anti-worm per | | | | | | | | | | | | | | |
| age | | | | | | | | | | | | | | |
| <=1 year | 11 | 7% | 1 | 13% | 1 | 6% | 1 | 9% | 0 | 0% | 7 | 7% | 1 | 5% |
| >1 en <5 years | 65 | 25% | 4 | 24% | 7 | 32% | 2 | 18% | 1 | 9% | 49 | 26% | 2 | 17% |
| <5 years | 76 | 18% | 5 | 20% | 8 | 21% | 3 | 14% | 1 | 6% | 56 | 19% | 3 | 9% |
| >=5 en <=10 years | 198 | 39% | 13 | 62% | 12 | 31% | 10 | 36% | 4 | 36% | 142 | 38% | 17 | 50% |
| >10 years | 1 | 33% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 33% | 0 | 0% |



Table 8: Disaese prevalence among all children per geographical location

| lable 8. Disaese prevai | | otal | | ulia | | axmi | Boro | Kupot | Choto | Kupot | Noc | ıbeki | Ove | erige |
|-------------------------|-----|------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|--------|-------|
| | 9 | 36 | Total= | 46 | Total= | 77 | Total= | 50 | Total= | 28 | Total= | 667 | Total= | 68 |
| | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| vitamin deficit | | | | | | | | | | | | | | |
| (clinical signs) | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| syndrome n.o.s. | 6 | 1% | 0 | 0% | 2 | 3% | 0 | 0% | 0 | 0% | 1 | 0% | 3 | 4% |
| pneumonia (clinical) | 4 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 3 | 0% | 1 | 1% |
| tuberculosis (X-ray | | | | | | | | | | | | | | |
| confirmed) | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| bronchitis | 5 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 5 | 1% | 0 | 0% |
| BHR/asthma | 2 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 0% | 0 | 0% |
| gardia (suspected) | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| dysenteria | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| dehydration : acute | | | | | | | | | | | | | | |
| diarrhoea | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| dehydration: | | | | | | | | | | | | | | |
| chronic diarrhoea | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| diarrhoea without | | | | | | | | | | | | | | |
| dehydration | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 1% |
| constipation | 8 | 1% | 0 | 0% | 1 | 1% | 0 | 0% | 0 | 0% | 7 | 1% | 0 | 0% |
| active worm | | | | | | | | | | | | | | |
| infection | 2 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 0% | 0 | 0% |
| active lintworm | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| otitis media acuta | 7 | 1% | 1 | 2% | 1 | 1% | 0 | 0% | 0 | 0% | 4 | 1% | 1 | 1% |
| otitis media with | | | | | | | | | | | | | | |
| effusion | 10 | 1% | 0 | 0% | 0 | 0% | 1 | 2% | 1 | 4% | 7 | 1% | 1 | 1% |
| otitis externa | 8 | 1% | 0 | 0% | 1 | 1% | 0 | 0% | 0 | 0% | 7 | 1% | 0 | 0% |
| tympanic perforation | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% |
| (adeno)tonsillitis | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% |
| candida stomatitis | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 1% |
| hearing impairment | 2 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 1 | 1% |
| other | 13 | 1% | 1 | 2% | 3 | 4% | 0 | 0% | 1 | 4% | 8 | 1% | 0 | 0% |
| cariës n.o.s. | 139 | 15% | 6 | 13% | 13 | 17% | 7 | 14% | 2 | 7% | 99 | 15% | 12 | 18% |
| pain n.o.s | 8 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 4% | 7 | 1% | 0 | 0% |
| caries with pain | 173 | 18% | 4 | 9% | 16 | 21% | 5 | 10% | 6 | 21% | 131 | 20% | 11 | 16% |
| wounds n.o.s. | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% |
| eczema n.o.s. | 16 | 2% | 2 | 4% | 1 | 1% | 1 | 2% | 2 | 7% | 10 | 1% | 0 | 0% |
| dermatomycosis | 19 | 2% | 2 | 4% | 2 | 3% | 1 | 2% | 0 | 0% | 13 | 2% | 1 | 1% |



| Impetigo/furunculosis | 7 | 1% | 0 | 0% | 0 | 0% | 1 | 2% | 0 | 0% | 4 | 1% | 2 | 3% |
|-------------------------|----|----|---|----|---|----|---|----|---|----|----|----|---|----|
| lice | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| scabies | 13 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 12 | 2% | 1 | 1% |
| erysipelas / cellulites | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| wounds infected, | 3 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 3 | 0% | 0 | 0% |
| insect bite | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| other (psoriasis etc) | 9 | 1% | 1 | 2% | 1 | 1% | 1 | 2% | 1 | 4% | 5 | 1% | 0 | 0% |
| psychomotoric | | | | | | | | | | | | | | |
| retardation | 12 | 1% | 0 | 0% | 1 | 1% | 0 | 0% | 2 | 7% | 8 | 1% | 1 | 1% |
| hypertonia | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| hypotonia | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| epilepsy | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% |
| spina bifida | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% |
| migraine/headache | 3 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 3 | 0% | 0 | 0% |
| meningitis | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| physiological | | | | | | | | | | | | | | |
| murmer | 8 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 8 | 1% | 0 | 0% |
| pathological murmur | | | | | | | | | | | | | | |
| (suspected) | 1 | 0% | 1 | 2% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| refractory problem | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% |
| strabismus | 6 | 1% | 0 | 0% | 0 | 0% | 1 | 2% | 0 | 0% | 4 | 1% | 1 | 1% |
| keratoconjunctivitis | 6 | 1% | 0 | 0% | 0 | 0% | 1 | 2% | 0 | 0% | 3 | 0% | 2 | 3% |
| amblyopia | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| diabetes | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| menorraghia | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| amenorrhoea | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| epi/hypospadia | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 0 | 0% |
| cryptorchism | 3 | 0% | 1 | 2% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 0% | 1 | 1% |
| inguinal hernia | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| urinary infection | 17 | 2% | 2 | 4% | 1 | 1% | 2 | 4% | 1 | 4% | 11 | 2% | 0 | 0% |
| chronic kidney path. | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| septic arthritis | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| hernia(umbilical etc) | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |



Table 9: Treatment among all children per geographical location

| | To | tal . | At | ulia | Biral | axmi | Boro | Kupot | Choto | Kupot | Noc | ıbeki | Ove | rige |
|----------------------|-----|-------|--------|------|--------|------|--------|-------|--------|-------|--------|-------|--------|------|
| | 93 | 36 | Total= | 46 | Total= | 77 | Total= | | Total= | 28 | Total= | 667 | Total= | 68 |
| | N | % | n | % | n | % | n | % | n | % | n | % | n | % |
| ferro | 107 | 11% | 2 | 4% | 5 | 6% | 2 | 4% | 2 | 7% | 90 | 13% | 6 | 9% |
| mother iron | 74 | 8% | 3 | 7% | 8 | 10% | 3 | 6% | 2 | 7% | 48 | 7% | 10 | 15% |
| multivitamins | 334 | 36% | 27 | 59% | 32 | 42% | 22 | 44% | 8 | 29% | 219 | 33% | 26 | 38% |
| anti-worm | 591 | 63% | 25 | 54% | 52 | 68% | 36 | 72% | 18 | 64% | 420 | 63% | 40 | 59% |
| acute worm | 7 | 1% | 0 | 0% | 1 | 1% | 0 | 0% | 1 | 4% | 5 | 1% | 0 | 0% |
| anti-lice | 1 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 4% | 0 | 0% | 0 | 0% |
| anti-scabies | 11 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 10 | 1% | 1 | 1% |
| niclosamide | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| amoxicillin | 32 | 3% | 0 | 0% | 1 | 1% | 2 | 4% | 1 | 4% | 25 | 4% | 3 | 4% |
| augmentin | 9 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 4% | 8 | 1% | 0 | 0% |
| 2e lijns antibiotica | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| metranidazol | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| co-trimoxazol | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| ceftriaxon | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| AB urine infection | 4 | 0% | 2 | 4% | 0 | 0% | 0 | 0% | 1 | 4% | 1 | 0% | 0 | 0% |
| paracetamol | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| ORS | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| eardrops | 7 | 1% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 6 | 1% | 1 | 1% |
| nystatine | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| mupirocine=Bactroban | 4 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 0% | 2 | 3% |
| hydrocortisone cream | 19 | 2% | 3 | 7% | 0 | 0% | 1 | 2% | 2 | 7% | 13 | 2% | 0 | 0% |
| dactarin cream | 16 | 2% | 1 | 2% | 2 | 3% | 1 | 2% | 0 | 0% | 11 | 2% | 1 | 1% |
| dactacort cream | 2 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 0% | 0 | 0% |
| fusidin cream | 2 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 0% | 0 | 0% |
| sudo cream | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| neutral cream | 1 | 0% | 0 | 0% | 0 | 0% | 1 | 2% | 0 | 0% | 0 | 0% | 0 | 0% |
| iodine | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| selsun | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| eyedrops | 5 | 1% | 0 | 0% | 0 | 0% | 1 | 2% | 0 | 0% | 3 | 0% | 1 | 1% |

