

Medical Checks for Children

Medical Report Nepal Simri 2017



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Introduction

In the fourth week of October 2017 Medical Checks for Children (MCC) visited Simri in the south of Nepal for the first time. The MCC team checked and treated free of cost 648 children of Simri and several surrounding villages. The medical camp was organized for five days.

The MCC team consisted of ten members from The Netherlands: Nadine van Dijk (medical-end-responsible and mission leader, emergency doctor), Iris van de Gevel (organization-end-responsible, toxicologist), Lisette Leeuwen (medical doctor), Micha de Groot (nurse), Laurien Reinders (general practitioner), Lisa Zwijs (paediatric nurse), Juliette van Kemenade (general practitioner) and Hedwig Gosselink (education advisor).

The medical checks were organized in close cooperation with NGO Health for Nepal and with further assistance of the local "Simri Club" and Laxmi Prakthisan.

The village Simri is located in the south of Nepal, just outside Chitwan National Park in direction of the border with India. In Simri or surrounding villages, is no health post nor hospital. The nearest hospital is several hours away.

Technical equipment, medical supplies and toothbrushes were brought from the Netherlands by MCC team members. Most of the medication was ordered in Kathmandu

The cooperation of Health for Nepal and the other organizations existed out of the following (amongst others):

- Announcement of the medical camp in Simri and surrounding villages.
- All contacts with districts/governmental officers.
- Selection of translators/local helpers.
- Providing food, drinks and lodging of all MCC team members and part of the translators.
- Transportation of the MCC team from Sauraha to Simri and back.
- Giving all kinds of support to the MCC team during the medical camp.
- Arrangement of transportation of children from surrounding villages to Simri
- Give follow-up for the referred children (Barathpur, Kathmandu and Dhulikel).

Medical Checks for Children on location:

The medical checks were performed in five days. During the free of costs medical checks, the children were checked following the MCC carousel:

1. Registration of the child
2. Measuring height and weight
3. Blood test (haemoglobin) and urine test and/or malaria test when indicated
4. Physical examination by a medical doctor
5. Giving medication (pharmacy)
6. Education on tooth brushing (a tooth brush was given to each child) and nutritious food.
7. Enter children's files in data base.

Special attention was given to the transfer of part of the medical carousel to the children and parents.

For assistance and for their general knowledge of the population, Anoeska and Raju were present during the medical camp, in various roles but most importantly for children with special needs or referred to the hospital or a social program. Some of the children, if needed, were allocated to the sponsor program of Health for Nepal.

Results Simri

In Simri we saw in total 648 children during our first medical camp. Due to the rain (and high level of the river) and the wild elephants in the forest, some children of surrounding villages were not able to come. In order to increase the number of children, the local partner arranged transport by tractor or van from several villages to Simri.

Considering the circumstances (rain and elephants), the fact that MCC was only for 5 days in Simri, that MCC was in Simri for the first time, and that the medical camp was organized at the end of the festival period, we are very pleased with the number of children who attended the medical camp.

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

Villages	21-10-17	22-10-17	23-10-17	24-10-17	25-10-17	Total
Simri	126	106	41	12	3	288
Baluwa	0	0	14	41	4	59
Chandrapur	0	32	2	9	0	43
Jangaisaya	0	0	0	68	2	70
Kolhalvi	0	0	40	5	7	52
Other	1	7	23	93	12	136
Total	127	145	120	228	28	648

For the villages with >40 children attending, a separate analysis was made. 136 children came from different villages with numbers between 1 and 40, these were together analyzed as other”.

Table 2: Child with caretaker at the day of the check

	Total		Simri		Baluwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	N	%	n	%	n	%	n	%	n	%	n	%
No	5	1%	1	0%	1	2%	0	0%	0	0%	1	2%	1	1%
Yes	597	92%	287	100%	58	98%	42	98%	35	50%	51	98%	124	91%
Teacher	46	7%	0	0%	0	0%	1	2%	35	50%	0	0%	11	8%

Special attention was paid to the presence of caretakers during the medical camp, at the announcement of the medical camp and at registration. Almost all children (597, 92%) brought a caretaker (46, 7% came with a teacher). We are very pleased with this high attendance of caretakers, as an important part of the medical camp is the transfer and exchange of medical and healthcare information, from the parents to the doctors and vice versa. We know that the presence of caretakers will make the medical camp more sustainable. Therefore, we stress that in the coming years, equal attention should be paid again to the presence of the children's caretakers.

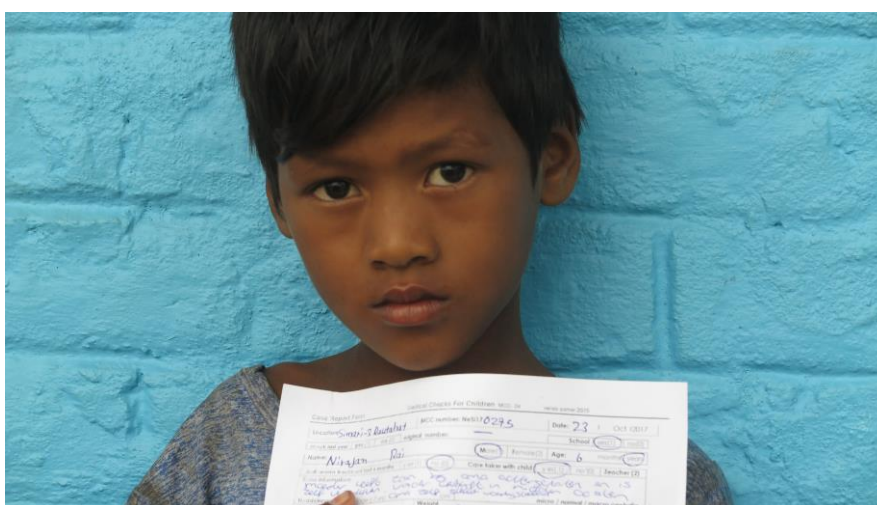


Table 3: Summary of checked children per geographical location, age and gender

Age	Total		Simri		Baluwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	N	%	n	%	n	%	n	%	n	%	n	%
<=1 year	43	7%	24	8%	2	3%	2	5%	2	3%	0	0%	13	10%
>1 en <5 years	137	21%	66	23%	11	19%	13	30%	9	13%	13	25%	25	18%
<5 years	175	27%	87	30%	13	22%	14	33%	11	16%	13	25%	37	27%
>=5 en <=10 years	273	42%	114	40%	30	51%	15	35%	28	40%	28	54%	58	43%
>10 years	200	31%	87	30%	16	27%	14	33%	31	44%	11	21%	41	30%
Gender														
Boy	352	54%	131	45%	37	63%	17	40%	40	57%	27	52%	100	74%
Girl	296	46%	157	55%	22	37%	26	60%	30	43%	25	48%	36	26%

Anemia

In total 28% of the 648 children were anemic. The highest prevalence of anemia was seen in Kolhalvi. The lowest prevalence of anemia was seen in Jangaisaya. As we did not visit these villages and we have no further information on living conditions, availability of food and general status of the people living in Kolhalvi and Janaisayai, we need to discuss this finding with “Health for Nepal”.

Table 4: Prevalence of anemia per geographical location by age and gender

	Total		Simri		Baluwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Anaemia	184	28%	86	30%	17	29%	9	21%	13	19%	25	48%	34	25%
No anaemia	459	71%	201	70%	41	69%	34	79%	56	80%	27	52%	100	74%
Unknown	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
Hb <5,0 mmol	2	0%	1	0%	0	0%	0	0%	0	0%	0	0%	1	1%
Anaemia per age														
<=1 year	17	40%	9	38%	1	50%	1	50%	2	100%	0	0%	4	31%
>1 en <5 years	49	36%	24	36%	6	55%	4	31%	3	33%	8	62%	4	16%
<5 years	64	37%	32	37%	7	54%	4	29%	5	45%	8	62%	8	22%
>=5 en <=10 years	74	27%	34	30%	6	20%	1	7%	5	18%	13	46%	15	26%
>10 years	46	23%	20	23%	4	25%	4	29%	3	10%	4	36%	11	27%
Anaemia per gender														
Boy	92	26%	37	28%	9	24%	5	29%	6	15%	13	48%	22	22%
Girl	92	31%	49	31%	8	36%	4	15%	7	23%	12	48%	12	33%



During the medical check-ups, we gave nutritional advice to all children and their guardians with emphasis on vegetable intake and vitamin C. When it comes to the prevention of anemia, the vitamin C intake is important because vitamin C facilitates the uptake of iron in the gut (as milk and tea counterparts it). However, the general availability of nutritious foods in the different villages should be investigated by "Health for Nepal" and based on this inventory additional plans can be made, like school meals, a school garden from an educational point of view, etc.

For babies, we advised exclusive breastfeeding up to six months, then start with the introduction of normal food and we discussed the possibilities of donation of breast milk by another woman when the normal supply is lacking.

All children with anemia were treated with iron or multivitamin. Only 2 children (1%) had an Hb below 5 mmol/l). There were no indications of a high prevalence of malaria nor HIV/AIDs.

For Nepal, public available figures indicate an overall prevalence of anemia of 46% in 2011¹. The children below 5 years of Simri have a lower prevalence of anemia (37%).

Malnutrition

Stunting, or low height for age, is caused by long-term insufficient nutrient intake and frequent infections. Stunting generally occurs before age two, and effects are largely irreversible and have a huge impact on general development, school results and financial situation in later life. Wasting, or low weight for height, is a strong predictor of mortality among children under five. It is usually the result of acute significant food shortage and/or disease.

Underweight (weight for age) encompasses both stunting and wasting.

In total 28% of the children in Simri and surrounding villages were underweight, 28% were stunted and 16% were wasted. Details can be found in tables 6, 7 and 8.

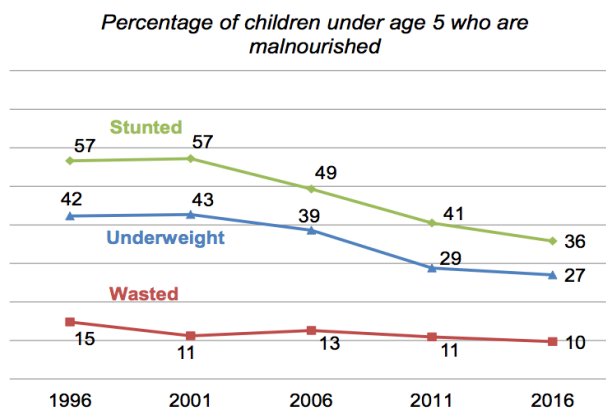
In general, the prevalence of underweight, stunting and wasting is quite high when compared to similar populations in Kenya and Tanzania, but are comparable to the prevalence seen by MCC in a village in Solukumbhu Nepal.

Figures of US AID of 2016² indicate for Nepal for children < 5 years, 27% for underweight, 36% for stunting and 10% for wasting. In Simri, for children under 5 years, this is 25% for underweight, 28% for stunting and 15% for wasting. The millennium development goal for underweight is 15%.

¹ https://www.spring-nutrition.org/sites/default/files/publications/anemia-profiles/spring_nap_nepal.pdf and <https://dhsprogram.com/pubs/pdf/FR336/FR336.pdf>

² https://www.usaid.gov/sites/default/files/documents/1864/USAID-Nepal_NCP.pdf

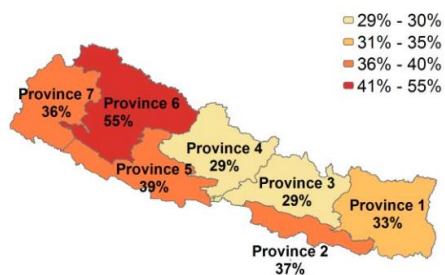
Figure 11.1 Trends in nutritional status of children



Trends: The prevalence of stunting and of underweight among children under age 5 have markedly decreased, from 57% to 36%, and from 42% to 27%, respectively, in the last 20 years (1996-2016). Mountain zone has the highest proportion of children who are stunted (47%), while the proportion of wasting and underweight is highest in terai (12% and 33%, respectively).

Figure 11.2 Stunting in children by province

Percentage of children under age 5 who are stunted



Additional attention might be paid to availability of nutritious food in Simri and knowledge on nutritious foods, for mothers and young children. In addition, possibilities to include a food program in the school, or to improve current diet might be investigated. Essential vitamins, and minerals in the diet are important for immunity and healthy development. Furthermore, advises on hygiene and anti-worm treatment, are of importance to prevent gastro-intestinal infections leading to growth abnormalities.

Children in rural areas are exclusively breastfed for a longer duration than children from urban areas (4.5 months versus 3.9 months). Also maternal undernutrition might play an important role in poor fetal and child development and pregnancy complications. Therefore, mother/child programs, children’s weight and length measurements and advises on nutritious foods should be one of the tasks of the future health post in Simri.

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

	Total		Simri		Batuwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Underweight	128	28%	43	24	14	33%	13	45%	15	38%	12	29%	31	32%
No underweight	318	70%	158	24	28	65%	16	55%	23	59%	29	71%	64	65%
Unknown	196	30%	86	19	16	27%	14	33%	31	44%	11	21%	38	28%
Underweight children per age														
<=1 year	5	12%	1	4%	0	0%	1	50%	0	0%	0	0%	3	23%
>1 en <5 years	40	29%	13	20%	3	27%	8	62%	1	11%	5	38%	10	40%
<5 years	44	25%	14	16%	3	23%	8	57%	1	9%	5	38%	13	35%
>=5 en <=10 years	84	31%	29	26%	11	38%	5	33%	14	52%	7	25%	18	31%
>10 years	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Underweight children per gender														
Boy	72	29%	24	24%	8	27%	5	50%	7	37%	5	24%	23	33%
Girl	56	27%	19	18%	6	46%	8	42%	8	40%	7	35%	8	28%

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

	Total		Simri		Batuwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Stunting	180	28%	72	25%	14	24%	17	40%	21	30%	8	15%	48	36%
No stunting	460	71%	214	75%	44	75%	26	60%	48	69%	44	85%	84	62%
Unknown	2	0%	1	0%	0	0%	0	0%	0	0%	0	0%	1	1%
Stunting children per age														
<=1 year	7	16%	3	13%	1	50%	1	50%	0	0%	0	0%	2	15%
>1 en <5 years	52	38%	22	33%	3	27%	8	62%	0	0%	4	31%	15	60%
<5 years	57	33%	24	28%	4	31%	8	57%	0	0%	4	31%	17	46%
>=5 en <=10 years	77	28%	30	26%	7	23%	5	33%	13	46%	2	7%	20	34%
>10 years	46	23%	18	21%	3	19%	4	29%	8	26%	2	18%	11	28%
Stunting children per gender														
Boy	3	13%	41	32%	8	22%	5	29%	9	23%	4	15%	38	38%
Girl	22	33%	31	20%	6	27%	12	46%	12	40%	4	16%	10	28%

Table 7: Prevalence of weight/length at or under P3 (wasting) per geographical location by age and gender

	Total		Simri		Batuwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Wasting	54	16%	19	12%	8	28%	1	4%	5	25%	5	18%	16	22%
No wasting	273	82%	138	87%	20	69%	23	96%	14	70%	23	82%	55	74%
Unknown	315	49%	130	45%	30	51%	19	44%	50	71%	24	46%	62	46%
Wasting children per age														
<=1 year	6	14%	3	13%	0	0%	0	0%	0	0%	0	0%	3	23%
>1 en <5 years	20	15%	5	8%	2	20%	0	0%	3	33%	3	23%	7	28%
<5 years	26	15%	8	9%	2	17%	0	0%	3	27%	3	23%	10	27%
>=5 en <=10 years	28	19%	11	16%	6	38%	1	10%	2	25%	2	13%	6	18%
>10 years	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Wasting children per gender														
Boy	33	18%	10	12%	6	29%	1	13%	2	25%	3	20%	11	20%
Girl	21	14%	9	12%	2	25%	0	0%	3	25%	2	15%	5	25%

Deworming

WHO recommends deworming in their current programs (2012, Deworming to combat the health and nutritional impact of soil-transmitted helminths, Biological, behavioral and contextual rationale). Soil-transmitted helminths, which include roundworms (*Ascaris lumbricoides*), whipworms (*Trichuris trichiura*) and hookworms (*Necator americanus* and *Ancylostoma duodenale*), are among the most common causes of infection in people who live in the developing world.

In general, for Nepal a low prevalence of (around 5-15%) of soil transmitted helminthiases was reported in public literature.³

Of all children checked in the medical camp, only 4% of the children reported to have received deworming treatment in the last 6 months (see table 8). WHO data from Nepal show a national coverage for Nepal of 86%⁴. It seems that in Simri and surrounding villages currently no deworming program is in place.

Table 8: Prevalence preventive anti-worm treatment in the last half-year per geographical location by age and gender

	Total		Simri		Baluwa		Chandrapur		Jangaisaya		Kolhalvi		Othe
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total=
	N	%	n	%	n	%	n	%	n	%	n	%	n
Anti-worm	23	4%	11	4%	0	0%	5	12%	1	1%	2	4%	4
No anti-worm	625	96%	277	96%	59	100%	38	88%	69	99%	50	96%	132
Unknown	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Anti-worm per age													
<=1 year	1	2%	0	0%	0	0%	0	0%	0	0%	0	0%	1
>1 en <5 years	7	5%	2	3%	0	0%	3	23%	1	11%	1	8%	0
<5 years	8	5%	2	2%	0	0%	3	21%	1	9%	1	8%	1
>=5 en <=10 years	14	5%	8	7%	0	0%	2	13%	0	0%	1	4%	3
>10 years	1	1%	1	1%	0	0%	0	0%	0	0%	0	0%	0

The highest coverage of deworming was seen in Chandrapur, 12% of all children Chandrapur and 21% of the children below 5 years received deworming treatment. An active worm infection was seen in 9 children (1%). It is unknown if a deworming program is in place in Chandrapur or other villages.

Simple ways of improving personal hygiene and sanitation through hand washing, nail trimming, wearing of shoes and use of a latrine and clear water supplies were encouraged. Although all members of a population can be infected by worms, those who are at most risk and would benefit most from preventive interventions are the pre-school (2-5 years), school age children, adolescent girls and women of childbearing age.

It is good to see that there is a good water supply for handwashing at the school in Simri. However, simple ways keeping soap available should be investigated. Washing with soap is considered important in the prevention of diarrheal diseases and improving children's health.

The prevalence of any soil-transmitted infection as reported in Simri is quite low, however, it will be an underestimation considering the type of toilets used, or absence of faecal examination either by care takers at home or at the medical camp.

³ <http://onlinelibrary.wiley.com/doi/10.1111/tmi.12700/full> and <https://academic.oup.com/trstmh/article-abstract/108/4/228/1923997?redirectedFrom=PDF>

⁴ http://www.who.int/neglected_diseases/preventive_chemotherapy/sth/db/?units=minimal®ion=all&country=npl&countries=npl&year=2016

Evidence shows that a preventive deworming program, by a periodic large-scale administration of anthelmintic medicines to populations at risk, can dramatically reduce the burden of worms caused by soil-transmitted helminth infections. It is recommended to provide preventive deworming biannually (albendazole 400 mg or mebendazole 500 mg) as a public health intervention for all children > 1 year of age.

Other diagnoses and referrals

Other diagnoses included pneumonia (8), bronchitis (9), otitis media (acute 31, with effusion 12), otitis externa (21), carries (251), eczema (20), dermatomycosis (35), lice (15), scabies (4), infected wounds (17), psychomotoric retardation (22) and pathological heart murmur (5). Details on all diagnoses and given treatment can be found in the tables in the Annex.

If necessary, children were referred to Ishan Children's hospital in Kathmandu.

6 children were referred to the hospital:

- Two children with severe malnutrition and regressed milestones. Parents were given counseling and training at Ishan hospital and further attention was given to the medical condition of these children.
- One boy with a defect at the urethra and issues with urination. A plan is made for future small surgery.
- A girl with a tumor in her left arm was initially referred to Ishan Children's hospital and to the Memorial Cancer hospital in Barathpur. After initial investigations, she was transferred by "Health for Nepal" to Dhulikel hospital, in order to ensure good care for this girl. After investigations it was decided by the Nepali doctors that her arm had to be amputated. It is still unknown if she needs further treatment. She will be given follow-up, e.g. it will be investigated if there are possibilities for training and support.
- A girl with spina bifida was sent to hospital for investigation and follow-up.
- A boy with a pathological heart murmur was sent to the hospital for further review.

For all referred children, transport to the hospital and treatment were paid by funds from MCC team members.



Some children were identified as children who might need more attention, e.g. through the sponsor program of "Health for Nepal", e.g. for neglected children, non-school going children, or extremely poor parents. We were very pleased with the help of "Health for Nepal" and its volunteers for the support of these special need children. Follow-up on these children will be given by "Health for Nepal".

Three home visits were performed, for one young woman and two boys both 13 years of age. The young woman suffered from general muscle weakness of both arms and legs and advice was provided for her daily care, but also MCC investigated possibilities to support in future with medication.

One of the boys suffered from hemiplegia, the other is hypertonic. For both boys further support is sought, additional information for support will be gained from specialized organization (e.g. Lilliane foundation and Suvadra). Caretakers were given advice.

Conclusions and recommendations**1. Deworming**

It should be investigated whether a deworming program is running in Simri and the surrounding villages. In Nepal deworming programs are in place, however, not all villages are reached. Are there governmental anti worm outreach programs in the area? Could Simri be included if there are? Could Health for Nepal be responsible for initiating a twice yearly deworming program at the school? Could a future health post play a role in a deworming outreach program and or can the Governmental District play a role in implementing a deworming program in Simri and surrounding villages? According to WHO large-scale deworming is the best way to reduce the suffering caused by intestinal worms. Improving basic hygiene, sanitation, health education and providing access to safe drinking-water are also keys to resolving the health and nutritional problems caused by intestinal worms.

2. Education

During the medical camp, at the education post, several Nepali translators and helpers were active. For future medical camps, we should look for a local with good teaching skills and someone who can easily catch the children's attention at this post. In close collaboration between MCC and Health for Nepal, we should look for the best teaching method for the children of Simri, e.g. by a play, by group teaching, etc. It is important to teach the children at their own level and experience all aspects of tooth brushing and nutritious food.

3. Governmental programmes

It should be investigated whether or not a vitamin A program is in place in this area, and if there are other programs in the area focusing on nutrition. Are there other international players around US Aid, UN or others?

4. Special needs children

During our medical camp we came across a considerable number of special needs children, e.g. 22 reported with a psychomotoric retardation, but also some other children with special medical or mental conditions. At the moment they are kept at home and cared for by their parents the best they can. But of course this is a burden for a family working on the lands etc. Do the parents, school and villages feel there is a need to provide better care for these children? Are there options at the school to start a special day care?

5. Health Post

"Health for Nepal", is investigating and discussing the possibilities to set up a health post at the school in Simri, to provide basic health care to the village of Simri. Based on the findings of the medical camp, the number of children with diseases, malnutrition and possible lack of mother/child care, MCC is of opinion that the village of Simri might benefit from a health post as health care is not available in Simri and surrounding villages. However, setting up a health post should be carefully planned and set up, and with attention for e.g. trained and motivated staff, to promote reproductive, maternal, newborn and child health. Based on MCC's experience in other villages, it is important to have a stable staff of the health post for a longer period of time. From a local perspective the area would benefit from experience and staff that has a bond with the area. "Health for Nepal" should avoid short contracts or junior doctors on rotation.

Further topics might be immunization, family planning, outreach programs to other villages, etc. It is recommended to start education programs for mothers on mother/child care. Several topics can be considered: improvement of child food, education on breast feeding and additional feeding, education on hygiene and importance of deworming.

6. Dental

Considering the high prevalence of carries (251 children, which might be an underestimation), the importance of oral hygiene should be further considered. “Health for Nepal” might consider to implement brushing program at the schools, as for instance the BAS program of NOSH (<http://www.nohs.nl/>).

7. Other

For a future medical camp we would like to include a questionnaire in the medical camp, based on which some additional knowledge can be gained on children’s mortality, mother/child/pregnancy care and eating habits. If a health post is set up, the team might benefit from the data of this questionnaire.

Last words

We are very grateful for all work performed by Anoeska, Raju, Krishna, all translators and helpers during the medical camp in Simri. We could not have performed our work without their presence and hard work. Although we came in festival time, all Nepali team members were willing to contribute in the medical camp, and we consider this as a gift to all children and the MCC team. In addition, MCC was thrilled by the presence of so many caretakers during the medical camp.

Although much improvement is still needed in the general health care of the children of Simri, we feel confident that a lot will be achieved in the following years. We would therefore like to thank all people of Health for Nepal, the “Club”, Laxmi Prakistan, Chandra, Ishan and Dhulikel hospital for their enthusiasm and cooperation.

Iris van de Gevel and Nadine van Dijk



Annex 1 – Detailed tables for Simri

Table Annex 1 – 1: Disease prevalence among all children per geographical location

	Total		Simri		Baluwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288	Total= 59	Total= 43	Total= 70	Total= 52	Total= 136						
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
Underweight	128	20%	43	15%	14	24%	13	30%	15	21%	12	23%	31	23%
Stunting	180	28%	72	25%	14	24%	17	40%	21	30%	8	15%	48	35%
Wasting	54	8%	19	7%	8	14%	1	2%	5	7%	5	10%	16	12%
Anaemia	184	28%	86	30%	17	29%	9	21%	13	19%	25	48%	34	25%
HIV pos.	1	0%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%
AIDS	2	0%	0	0%	0	0%	0	0%	2	3%	0	0%	0	0%
Malaria (suspected)	1	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%
vitamin deficit (clinical signs)	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
Bilharzia	3	0%	3	1%	0	0%	0	0%	0	0%	0	0%	0	0%
syndrome n.o.s.	6	1%	0	0%	0	0%	1	2%	1	1%	0	0%	4	3%
pneumonia (clinical)	8	1%	4	1%	0	0%	0	0%	1	1%	1	2%	2	1%
pneumonia (X-ray confirmed)	1	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%
bronchitis	9	1%	3	1%	0	0%	0	0%	2	3%	0	0%	4	3%
BHR/asthma	6	1%	2	1%	1	2%	1	2%	0	0%	0	0%	2	1%
gardia (suspected)	1	0%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%
dysentery	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
dehydration : acute diarrhoea	1	0%	0	0%	1	2%	0	0%	0	0%	0	0%	0	0%
constipation	1	0%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%
active worm infection	9	1%	4	1%	2	3%	0	0%	2	3%	1	2%	0	0%
otitis media acuta	31	5%	16	6%	6	10%	0	0%	1	1%	1	2%	7	5%
otitis media with effusion	12	2%	2	1%	5	8%	1	2%	0	0%	0	0%	4	3%
otitis externa	21	3%	8	3%	4	7%	1	2%	3	4%	0	0%	5	4%
tympanic perforation	4	1%	0	0%	2	3%	0	0%	1	1%	0	0%	1	1%
(adeno)tonsillitis	3	0%	1	0%	0	0%	1	2%	0	0%	0	0%	1	1%
candida stomatitis	2	0%	0	0%	0	0%	1	2%	0	0%	0	0%	1	1%
hearing impairment	7	1%	1	0%	4	7%	0	0%	1	1%	0	0%	1	1%
other	12	2%	4	1%	2	3%	1	2%	2	3%	1	2%	2	1%
cariës n.o.s.	251	39%	95	33%	36	61%	14	33%	32	46%	27	52%	47	35%
pain n.o.s	4	1%	0	0%	1	2%	0	0%	0	0%	2	4%	1	1%
fluorosis	1	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%
caries with pain	5	1%	3	1%	1	2%	0	0%	1	1%	0	0%	0	0%
wounds n.o.s.	2	0%	1	0%	0	0%	0	0%	0	0%	0	0%	1	1%
eczema n.o.s.	20	3%	7	2%	0	0%	3	7%	3	4%	2	4%	5	4%
dermatomycosis	35	5%	12	4%	1	2%	3	7%	5	7%	1	2%	13	10%
Impetigo/furunculosis	10	2%	6	2%	0	0%	0	0%	2	3%	0	0%	2	1%
lice	15	2%	11	4%	0	0%	0	0%	1	1%	2	4%	1	1%
scabies	4	1%	2	1%	0	0%	1	2%	1	1%	0	0%	0	0%
wounds infected,	17	3%	10	3%	0	0%	1	2%	1	1%	0	0%	5	4%
other (psoriasis etc)	32	5%	11	4%	5	8%	1	2%	1	1%	6	12%	8	6%
psychomotoric retardation	22	3%	2	1%	1	2%	1	2%	5	7%	0	0%	13	10%
hypertonia	2	0%	1	0%	0	0%	0	0%	0	0%	0	0%	1	1%
hypotonia	2	0%	0	0%	1	2%	0	0%	0	0%	0	0%	1	1%
epilepsy	4	1%	1	0%	0	0%	1	2%	0	0%	0	0%	2	1%
spina bifida	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
physiological murmur	5	1%	1	0%	2	3%	1	2%	0	0%	0	0%	1	1%
pathological murmur (suspected)	5	1%	1	0%	1	2%	0	0%	0	0%	1	2%	2	1%
refractory problem	2	0%	2	1%	0	0%	0	0%	0	0%	0	0%	0	0%
strabismus	2	0%	0	0%	1	2%	0	0%	0	0%	0	0%	1	1%
keratoconjunctivitis	2	0%	1	0%	0	0%	0	0%	0	0%	0	0%	1	1%

	Total		Simri		Baluwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
epi/hypospadias	1	0%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%
cryptorchism	1	0%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%
inguinal hernia	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%
urinary infection	3	0%	2	1%	0	0%	0	0%	1	1%	0	0%	0	0%
hip dysplasia	1	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%
old fracture	2	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	1%
hernia(umbilical etc)	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%

Table Annex 1-2: Treatment among all children per geographical location

	Total		Simri		Baluwa		Chandrapur		Jangaisaya		Kolhalvi		Other	
	648		Total= 288		Total= 59		Total= 43		Total= 70		Total= 52		Total= 136	
	N	%	n	%	n	%	n	%	n	%	n	%	n	%
ferro	105	16%	47	16%	11	19%	2	5%	5	7%	18	35%	22	16%
mother iron	16	2%	6	2%	2	3%	0	0%	2	3%	1	2%	5	4%
multivitamins	252	39%	104	36%	19	32%	18	42%	34	49%	17	33%	60	44%
anti-worm	576	89%	253	88%	53	90%	36	84%	65	93%	50	96%	119	88%
acute worm	10	2%	5	2%	2	3%	0	0%	2	3%	1	2%	0	0%
anti-lice	9	1%	9	3%	0	0%	0	0%	0	0%	0	0%	0	0%
anti-scabies	5	1%	4	1%	0	0%	1	2%	0	0%	0	0%	0	0%
amoxicillin	41	6%	17	6%	8	14%	0	0%	4	6%	2	4%	10	7%
augmentin	7	1%	2	1%	0	0%	0	0%	3	4%	1	2%	1	1%
2e lijns antibiotica	2	0%	1	0%	0	0%	0	0%	0	0%	0	0%	1	1%
co-trimoxazol	3	0%	1	0%	0	0%	0	0%	1	1%	0	0%	1	1%
paracetamol	1	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%
ORS	1	0%	0	0%	1	2%	0	0%	0	0%	0	0%	0	0%
eardrops	44	7%	16	6%	8	14%	2	5%	4	6%	0	0%	14	10%
hydrocortisone cream	9	1%	4	1%	0	0%	1	2%	0	0%	1	2%	3	2%
dactarin cream	29	4%	11	4%	2	3%	2	5%	5	7%	0	0%	9	7%
dactacort cream	15	2%	5	2%	0	0%	2	5%	1	1%	1	2%	6	4%
fusidin cream	21	3%	10	3%	0	0%	1	2%	2	3%	0	0%	8	6%
neutral cream	25	4%	11	4%	2	3%	2	5%	2	3%	4	8%	4	3%
griseofulvin	5	1%	2	1%	1	2%	0	0%	0	0%	2	4%	0	0%
eyedrops	4	1%	2	1%	0	0%	1	2%	0	0%	0	0%	1	1%