

Shining Eyes India

(Registration Under Section 60 And Rule 69)
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ANNUAL REPORT 1st April 2019 to 31st March 2020

1 Background

Shining Eyes India was established in February 2013 to improve the health of tribal children especially in the rural area around Bolpur at Birbhum District, West Bengal.

Through the preventive medical work in the tribal villages the trust tries to eliminate the causes of severe infections and to reduce child and mother mortality.

Hygiene, prevention and treatment of undernutrition and anemia, along with the provision of health awareness are most important fields to work on, in order to strengthen child health.

Since 1994 the pediatrician Dr. Monika Golembiewski has been coming to the Santal villages Ghosaldanga and Bishnubati for medical help. Further she started preventive medical care programs for children and mothers. Therefore, nutrition programs but also teaching sessions in order to raise awareness in topics related to hygiene or health aspects were initiated.



In 2011 a charitable children hospital has been established in collaboration with Berhampore Teresian Carmelite Society and the medical support for preventive work spread out to more and more tribal villages in the area. Since July 2016 the St Mary Child & Mother Health Care Centre is run by Shining Eyes India.



Today Shining Eyes India embraces three main pillars of action:

- health (to provide medical diagnostic, treatment and follow-up care to the Santals),
- nutrition (to raise awareness for the importance of balanced nutrition in order to break the intergenerational cycle of malnutrition and poverty),
- agriculture (to help every family to establish a kitchen garden with a variety of vegetables and fruits, further to start crop-rotation to increase dietary diversity).

These three main pillars are complemented by water, sanitation and hygiene activities (construction of community washing houses and tube wells) and income generating activities.

Nowadays the Trust is active in 33 villages around Bolpur,

(No 13.-33. Shining Eyes is active in cooperation with the local NGO Bolpur Manab Jamin):

- | | |
|------------------------------------|--------------------------|
| 1. Ghosaldanga | 19. Nurpur 1 |
| 2. Bishnubati (Santal, Hindu) | 20. Nurpur 2 |
| 3. Baganpara | 21. Borobagan |
| 4. Monedanga | 22. Borobagan Mitradanga |
| 5. Panchabanpur | 23. Ruppur Konrapara |
| 6. Bautijol | 24. Hatrasulganj 1 |
| 7. Bekajol | 25. Hatrasulganj 2 |
| 8. Kulbuni | 26. Amradanga |
| 9. Doltikuri | 27. Borodanga |
| 10. Tatpandi | 28. Muluk Kalitala |
| 11. Patharkata | 29. Paruldanga |
| 12. Bonerpukurdanga (Khechurdanga) | 30. Kankutia 2 |
| 13. Binodpur | 31. Charakdanga |
| 14. Ramlakhandanga | 32. Abhirampur |
| 15. Hetedanga | 33. Chandanpur |
| 16. Itedanga | |
| 17. Katabagan | |
| 18. Ballavpurdanga | |

2 Village Activities

The following activities have been taken place from April 2019 to March 2020.

2.1 Nutrition programs for malnourished children and pregnant women

In former years, the Trust has been implementing nutrition programs for malnourished children and pregnant as well as lactating mothers in several Santal villages. However, during the last four years the only nutrition program that has been continued was in Ringdanga, as in the other villages the health situation is stable. In November 2019 also this has been terminated.

Still, children suffering from moderate/severe anemia or undernutrition ($Hb < 10g/dl$, $WHZ < -2$) receive nutritious Moringa cookies every week (in 12 villages). We include locally produced Moringa leaf powder to the cookies or additionally provide plain leaf powder to families with malnourished children. Moringa leaf powder provides high-quality fatty acids, all essential amino acids in a good proportion, as well as minerals like iron, calcium, or magnesium and high amounts of beta-carotene, vitamin E, vitamin C and B-vitamins.

The focus of activities is more and more placed on preventive actions. In a total of 33 villages a holistic awareness program with interactive cooking trainings on household level is implemented. The distribution of a supplementary instant mixture "NutriMix" (a roasted cereal-lentil instant mix, enriched with sugar, oil, milk powder, vegetables and fruits) shall support mothers in the daily preparation of specially prepared foods for their children.

According to need nutrition programs may be started again. During a nutrition program selected mothers were guided to prepare a nutritious meal from locally available ingredients for the children of one village three times a week (Halwa and Khechuri with egg or chicken) in a community feeding setting.

2.2 Moringa Cookies and Moringa leaf powder distribution

Our horticulturist Nilu conducts the seasonal Moringa leaf harvest autonomously. The fresh leaves are shadow-dried, subsequently processed to powder, and then stored in a cool dry place for no longer than six months. The leaf powder is used for the baking of Moringa cookies and for the addition to Instant-NutriMix-porridges provided to moderately and severely malnourished/wasted children ($WHZ < -2SD$) in the scope of the above mentioned awareness programs. These supplementary porridges consist of a roasted wheat-lentil mixture enriched with milk, oil sugar as well as vegetables and fruits.

The two German horticulturists Anne and Rolf Bucher did introduce the weekly baking of Moringa Cookies some years ago. Therefore, a clay oven has been constructed. Aside Nilu's responsibility for the monitoring and counselling of kitchen gardens, Nilu Murmu also performs the baking sessions. Every week the village health workers distribute Moringa Cookies to the malnourished children, moreover these households also receive plain Moringa leaf powder to mix it into the cooked food for the child over the day.

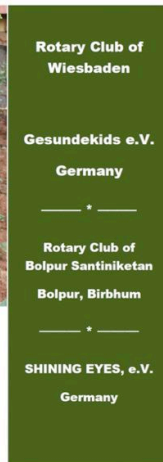
2.3 Kitchen garden program and Crop-diversification

We promote locally available plant resources to enrich the supplementary meals for the beneficiaries to strive for sustainable solutions. The most recent food-based approach extensively adhered to is dietary diversification by training mothers to use a variety of foods to enhance family meals. To overcome monoculture of staples we provide kitchen garden programs and train families about the importance of crop-diversification.

From May 2017 a holistic specially-designed health awareness program including the installation of kitchen gardens found its beginning in 12 Santal villages of Shining Eyes.



KITCHEN GARDEN PROGRAMME



The above named awareness training program included an extensive screening on village level for vulnerable individuals.

The aim of each awareness program should be *not to lose a single child, to reach all people in need, to give trust, and to generate knowledge*. This project sought to develop a holistic sustainable program including awareness training and screening to identify those in need with subsequent treatment (medicine, iron therapy, supplementary food

“NutriMix”) and monitoring. Since April 2019 this program structure has been extended to further 21 villages, which are in the sphere of activity of the cooperating partner the NGO Bolpur Manab Jamin. This extension of village activities has been made possible through the collaboration with the Rotary Club, existing from 2016 until today. In the scope of the longterm “healthy kids project” families are trained about healthy nutrition and can enjoy a higher diversity in their vegetable and fruit consumption over the year, being accompanied according to their needs in all agricultural activities (kitchen garden, crop-diversification).

Srikanta Mondal coordinates the kitchen garden program. To conclude during the last year 33 villages were beneficiaries of the awareness programs including kitchen garden installation and medical check-ups.

The kitchen garden program provides assistance to the villagers in selecting a plot of land, installing a fence in order to protect the greens from domestic animals, and in sowing the seeds. Villagers receive training in manure production and disease identification in plants as well as on appropriate vegetable usage. The harvested vegetables and fruits are consumed, shared with neighbours or sold. The kitchen garden helps to save the budget of the family and to diversify the daily meals. Some of the families already autonomously start their kitchen garden every season, others in close contact with our horticulturists in order to receive free of cost seeds and advise.

Aside the kitchen garden programs crop-diversification is promoted, away from cereal monoculture toward legumes and oil-seeds like mustard or sesame.

2.3.1. Number of kitchen gardens in the 12 Shining Eyes villages

During dry season March, April, May 2019 in the 12 Shining Eyes villages, a total of 119 families had malnourished children aged <3 years. These families receive supplementary food (NutriMix) and are specially supported to grow a kitchen garden. Hereof 72 families (60.5%) had a kitchen garden with 62.5% experiencing a good harvest, 26.4% a moderate harvest, and 11.1% had a bad harvest that was mostly related to water scarcity in the village. 47 families were unable to cultivate a kitchen garden due to lack of land.

In the rainy season June, July, August 2019, a total of 93 families with malnourished children were living in the 12 villages. The majority 67.7% had a kitchen garden. 30 families had no available land in that season. Of those growing a garden a good harvest was achieved by 74.6%. The rest of families reported problems with muddy soil, which made activities in the garden difficult.

In the winter season (Oct, Nov, Dec 2019) of 860 families (with/without malnourished children in the respective age range) 28.1% cultivated a kitchen garden. Named reasons for non-cultivation were no available land or lack of interest. Of those having a garden, the harvest was good in the majority of cases (71.9%).



Pictures: Our horticulturist Nilu Murmu monitoring kitchen gardens of Ghoshaldanga

2.3.2 Number of kitchen gardens in the 21 villages hosted by Shining Eyes in collaboration with the NGO Bolpur Manab Jamin

The following table represents the number of kitchen gardens from summer season 2019 to summer season 2020. The numbers are independent of who gets Nutrimix, as the Nutrimix program was introduced in summer 2019 in these 21 villages.

In many villages the biggest problem this year was that there was not enough water from February to June 2019 or no available land. This has affected the work with the kitchen gardens.

No.	Name of the village	No. of children	No. of kitchen garden	Percent having kitchen garden	No. of Crop Diversification (mustard, pulse, oilseeds)	No. of provided fruit trees (guava, lemon, mango, banana)	Comment
1	Abhirampur	11	11	100%	4	8	Watering problem
2	Amradanga	29	29	100%	14	16	Watering problem (Feb to mid June)
3	Ballavpurdanga	21	18	85.7%	8	12	Watering problem (no pond)
4	Binodpur	29	29	100%	16	14	Watering problem (Feb to mid June)
5	Borobagan	9	8	88.9%	4	7	Good maintaining of garden/fields
6	Mitradanga	39	34	87.2%	6	14	Watering problem (Feb to mid June)
7	Borodanga	15	15	100%	8	11	Watering problem (March to June)
8	Chandanpur	24	24	100%	12	21	Long distance to pond
9	Charakdanga	12	12	100%	8	12	No pond in the village, tube well doesn't work properly
10	Hatrasulganj 1	27	27	100%	11	17	Good maintaining of garden/fields
11	Hatrasulganj 2	28	26	92.9%	11	18	Watering problem (Feb to mid June)
12	Hetedanga	7	7	100%	4	7	No pond in the village, tube wells doesn't work properly
13	Itedanga	15	15	100%	10	12	Good maintaining of garden/fields
14	Kankutia 2	25	25	100%	16	22	Good maintaining of garden/fields
15	Katabagan	17	17	100%	8	12	Good maintaining of garden/fields
16	Muluk Kalitala	44	42	95.5%	27	34	Watering problem
17	Nurpur 1	12	10	83.3%	4	6	No pond in the village, water depends on tube well
18	Nurpur 2	7	7	100%	2	5	Long distance to pond
19	Paruldanga	42	40	95.2%	16	18	Good maintaining of garden/fields
20	Ramlakhandanga	14	14	100%	8	7	No pond in the village
21	Ruppur Konrapara	21	19	90.5%	12	17	Not everyone has access to water
	Total	448	429	95.8%	209	290	



Pictures: kitchen garden monitoring by the cooperating project coordinator Srikanta Mondal (Bolpur Manab Jamin) and the village program coordinator Jayanta Das (Shining Eyes India), and children with the fresh harvest of the kitchen garden.



Picture: Kitchen garden harvest in Tatbandi © Shining Eyes India

2.4 Health worker training

The St. Mary's Child and Mother Health Care Centre engages a health worker team responsible for the screening of vulnerable patients in the villages, referring them to the hospital, as well as follow-up care in the village and performing awareness counselling and social assistance on household level. In detail, health workers are trained to routinely visit households and seek for sick patients, with subsequent organisation of the transport from the village to the hospital, they give advice in health topics, monitor prescribed medication by the DOTs center for TB patients and assist in applying iron drops for anaemic children, assure the compliance of pregnancy check-ups, or look after the kitchen garden if it is in a well-kept condition. The health workers also monitor the household cooking for malnourished children and instruct mothers how they properly enrich the distributed supplementary wheat-lentil instant powder with oil, sugar, milk and vegetables or fruits of the kitchen garden. The whole health worker team has the function to act like a safety net in the villages, they have to identify problems and seek for solutions.

On a weekly basis health workers come to the St. Mary's Child and Mother Health Care Centre to receive counselling for themselves by our social worker team. This counselling and the performance of the health workers in the villages is related to the common project of Shining Eyes India and Bolpur Manab Jamin. This weekly training is enriched by occasional courses given by volunteers (e.g. doctors, nurses, nutrition students).

In the year 2019/2020 Clara Kürsch, a nurse from Germany, visited our health care center three times for several months. During this time, she was mainly involved in village work.

Her major task was to train the newly joined social workers. Initially, she gave training several times a week on topics such as malnutrition, hygiene or infectious diseases. Organizing working schedules and monitoring of daily routines was also part of her duty.

The aim was to train the social workers so that they would later be able to work independently with the mothers and villagers. The social workers have to acquire improved documentation and reporting skills. Clara Kürsch made the initial steps for that long-lasting process. The social worker and health worker network focuses on enabling the mothers to acquire extensive knowledge about healthy nutrition and the consequences of malnutrition and thus to be able to act independently. When mothers understand the intergenerational cycle of malnutrition, anemia and poverty, they understand that the performance of their child in school or later working life is dependent on nutrition, proper caring and stimulating activities during early childhood. They are empowered to take action for the health of their child.

Another focus of Clara Kürsch's work was on ensuring that the medical check-ups went smoothly. The social workers learned how to correctly measure anthropometric indices such as the Z-score to detect malnutrition according to WHO standards. In the following stays Clara's task was to revise and optimize certain procedures. This involved structures within the health centre, but also continued to work with the health workers from the various villages.



Pictures: health worker team of Shining Eyes India



Pictures: health worker training in the St. Mary's Child and Mother Health Care Centre. Health workers learn e.g. appropriate anthropometric measurements as well as iron drop application





Pictures: Health worker training in the St. Mary’s Child and Mother Health Care Centre in a range of health topics (hygiene, recognition of emergency signs, prevention and treatment of anemia, healthy family nutrition, adequate breastfeeding and complementary feeding practices, family planning) (left side), social worker team with German volunteers during village visit (right side).

2.5 Community awareness trainings and interactive cooking trainings on household level

The social workers conduct interactive cooking trainings on household level. Hereby mothers are trained how to prepare the distributed supplementary roasted wheat-lentil mixture (NutriMix), and to enrich it with milk powder, sugar, oil and adequate amounts of fruits and vegetables. All ingredients except the vegetables and fruits are provided by Shining Eyes India. The vegetables and fruits mothers shall take from their kitchen garden. Altogether mothers are trained to offer five meals over the day to their child, of these five meals at least three shall be enriched with vegetables and fruits (rice meal, NutriMix-porridge, lentil-vegetable soup).

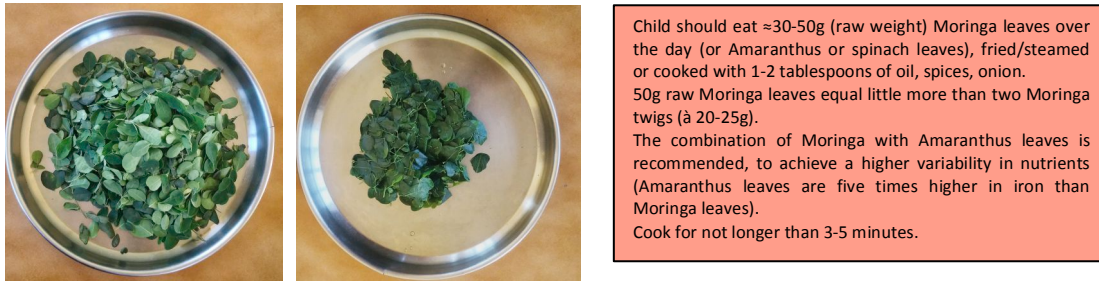


Pictures: Cooking training and monitoring, vegetable soup with spinach from the kitchen garden



Pictures: Feeding the child with NutriMix after interactive cooking training on household level (left side), Moringa oleifera tree (right side).

Community awareness also had the focus to promote diversified nutrition, here the acceptance of Moringa leaves and spinach in the daily family diet could be strengthened. More and more mothers now incorporate adequate amounts of green leafy vegetables in their cooking.



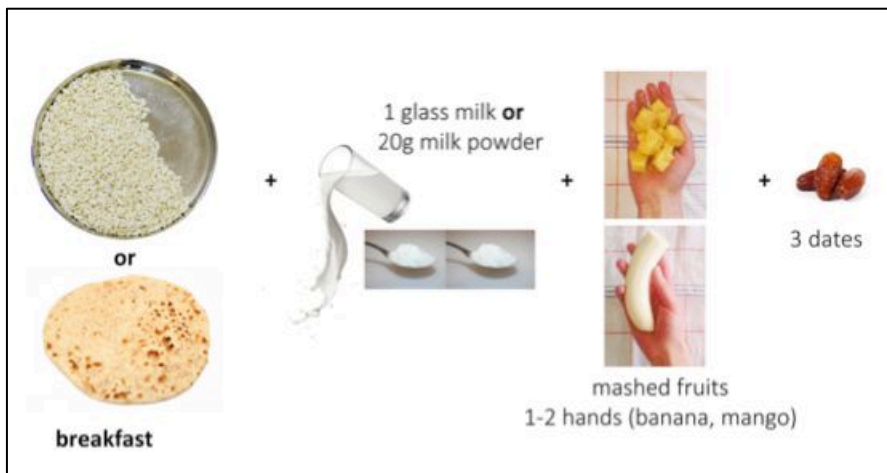
Pictures: left side raw Moringa leaves (55g), right side Moringa leaves cooked in water resulted in 80g cooked weight (thereof 50g pure leaves weight if only steamed, rest water attached if cooked in water).

In the year 2019 interactive awareness materials for better visualization of exemplified improved meals and of adequate portion sizes of vegetables and fruits per meal have been developed. Through visualization and practical cooking trainings counselled knowledge is reinforced. An exemplified dietary routine over the day shows options how to improve traditional meals, and enhance bioavailability of nutrients. The more colorful the plate, the more nutrients are contained herein.



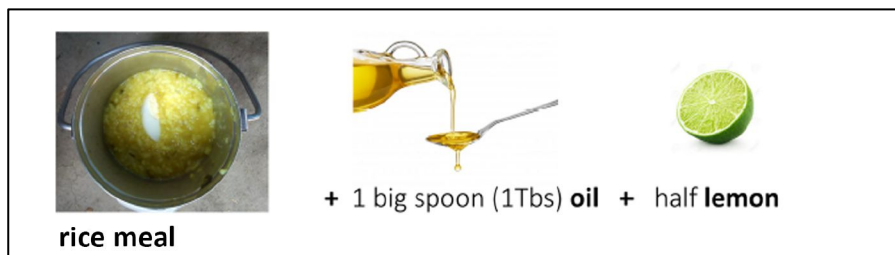
Picture: Food circle to represent the main food groups needed to achieve a healthy diet (Carbohydrate-rich foods like potato and rice, Protein-foods like animal foods or legumes, Vitamin-rich foods like vegetables and fruits, and the group with Energy-rich foods like sugar and oil, including oil seeds as nuts or sesame)

The traditional breakfast of puffed rice “Muri” or plain chapati should always be enriched with milk and fruits. If possible, the chapati should be prepared from chickpea or lentil flour instead of wheat flour to enhance protein intake, moreover little oil can be used for frying it. The oil enhances the intake of fat-soluble vitamins. The vitamin C in the fruits enhances mineral absorption from rice, wheat or legumes and general micronutrient intake.



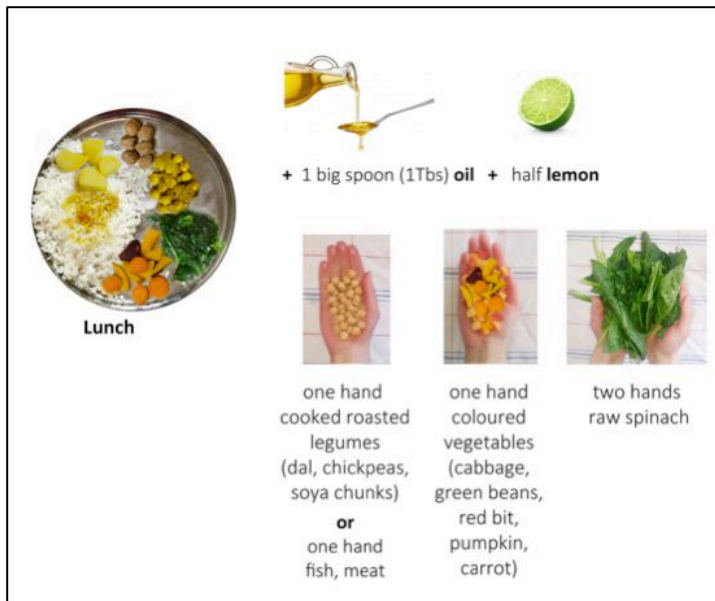
Picture: Traditional breakfast further enriched with milk powder and fruits

Any rice meal can be enriched with oil (to increase energy intake and improve bioavailability of fat-soluble vitamins) and lemon (vitamin C enhances absorption of minerals). Also the suggestion to serve freshly pressed fruit juices along with the meals was well-accepted, which in particular lets await an improved iron absorption from predominantly plant-based diets. The consumption of guava along the meal is another alternative to promote mineral absorption.



Picture: Any rice meal can be further enriched with oil (improved energy intake and better absorption of fat-soluble vitamins), or fresh fruits like guava, lemon, fruit juice (to enhance overall mineral absorption)

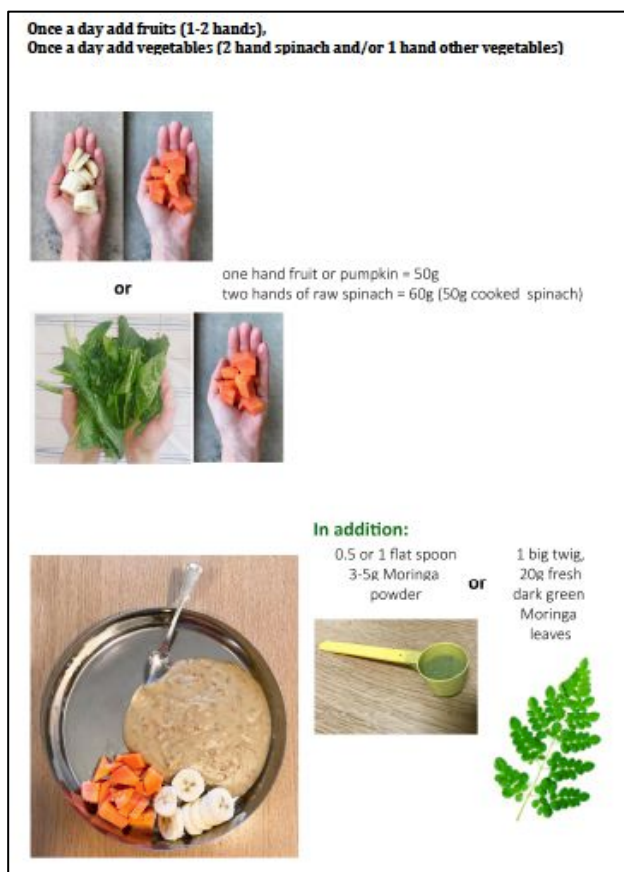
The lunch or dinner should be composed of one food of all food groups in adequate portion size (visualized by the food cycle). Snacks offered to children should be fruits or nuts and no processed foods like biscuits or chips. For dinner mothers are trained to use the roasted wheat-lentil NutriMix Instant powder and to further enrich it with sugar, milk powder, oil and vegetables/fruits from the kitchen garden. This specialized child food should be prepared at least once a day. The regular family dinner is often served too late, when the child already fell asleep, so this Instant-porridge is recommended to be served preferentially as dinner for the child.



Picture: Exemplified lunch with adequate variety of foods, including foods of all food groups (an adequate amount of legumes can replace animal foods)

Healthy snack options (fruits, nuts) are suggested to the mothers as alternative to processed foods that are most of the time poor in nutrients.

NutriMix -roasted wheat-lentil porridge with milk, sugar, oil and vegetables and fruits is a specially-prepared infant food that is suitable to be served once or twice a day. Mothers are trained during interactive cooking sessions about preparation. As the family dinner is often cooked late at the evening, the special infant porridge is a time-efficient option to prepare a healthy meal before the child is falling asleep.



Pictures: illustrate healthy snack alternatives (pictures on the top); or the specialized child food „NutriMix“ (roasted wheat-lentil porridge with milk powder, sugar, oil ≈200g) and adequate amount of fruits or vegetables (≈100g). It is recommended to additionally add a teaspoon of Moringa leaf powder or the cooked leaves of a Moringa twig (20g fresh leaves) (left)

Role playing: To enhance the popularity of fruits we regularly distributed fruits in the villages. Playful activities with the children should raise awareness about proper nutrition and hygiene.

Role playing motivated villagers to participate in dietary modifications. Meanwhile some mothers report that they more regularly purchase fruits from the markets when no ripe fruits are available from the trees. Some mothers even went by bus to the next village to buy the more nutritious snacks for their children.



Pictures: Our social worker Yesmin performs role playing games with the children in the village to gain awareness for health and nutrition

2.6 Responsive feeding and stimulation, mother-child interaction, child caring

Another central issue during household trainings by social workers and the health worker team is the improvement of mother-child interaction during the day and foremost during eating occasions. Mothers are trained to sit next to their child, keep eye-to-eye contact and motivate the child to eat. Not only the food itself but the assistance during eating are both equally important to maintain a good health status. In particular a child that suffers from undernutrition or anemia may be likely to have a diminished appetite as well. Often due to the high work load of the mother, eating occasions are reduced to a simple necessity. Mostly the mother is even not sitting next to her child during eating but doing other things along. The child is not concentrating on eating and livestock that crosses the eating place contaminates or even steals the food. Moreover undernourished children do not feel that they are hungry, however many mothers wait until the child shows hunger. Counselling includes that the mother shall offer at least five times a day food to her child, hereof three meals have to be warm meals. Moreover she shall react to any signs of hunger immediately. Crying is a late sign of hunger, and in particular in small children food has to be offered much earlier. Only the regular serving of meals can improve the nutrition and health status of the child and thereby in turn increase appetite. The project coordinator also regularly comes into the villages to observe the work of social workers and health workers. A holistic awareness program is elemental to

provide the cornerstones of behavioural modifications. Behavioural patterns shall be smoothly altered through interactive practicing and positive observations of child's development. After some weeks of iron therapy or supplementary feeding, mothers report their child becoming more active, being less sick and showing more appetite.



Pictures: Interactive cooking training on household level. The mother is accompanied over the day and receives recommendations how to prepare the food and is asked to assist the child during eating.



Pictures: Community awareness. The village coordinator supervises the work of social workers and health workers. The health worker monitors proper application of Glycifer (iron syrup) in the household.

2.7 Awareness training and family planning

Central awareness topics are the 1000-day window of opportunity, the intergenerational cycle of malnutrition and poverty, worm infestations and hygiene, recognition of sickness in the child, pregnancy and family planning. Mothers learn that taking action is decisive for their child's future. Mothers of the 33 villages now come more frequently to our Health Care Centre by themselves, as they are more sensible toward the health condition of their children. Now when the child is sick, mothers know the earlier they act the better. The signs of sickness are recognized and disease is not taken as a given, but mothers feel empowered to advocate the health of their children. Family planning sessions show mothers contraceptive methods and help to understand the female body and the process of becoming pregnant.



Picture: Family planning training session in the village community by a voluntary doctor.

2.8 Medical Check-ups in the villages –no child must be lost

In the scope of the awareness programs, regular medical check-ups are the focus as well. The programs have to be understood as holistic screening programs, seeking to find all vulnerable individuals in the villages and to refer them to proper diagnostic, treatment, long-term monitoring or preventive medical check-ups. The medical check-ups are guided by Dr. Monika Golembiewski who is a specialist for children, as well as by voluntary doctors joining for short-term assignments.

Medical village checkup, screening for:

Anemic children (6-24m all children receive iron-drops, >24m only if Hb<10g/dl)

→ iron + monitoring, during infection no iron shall be applied, control Hb after three months of treatment

Malnourished children (6-24m all children receive NutriMix, >24m only if WHZ<-2)

→ NutriMix + interactive Counselling + kitchen garden + monitoring

Pregnant women → prenatal diagnostics + monitoring

Neurological, handicapped, heart-defect, cleft-palate children → guidance into government schemes

Newborns → preventive medical checkup

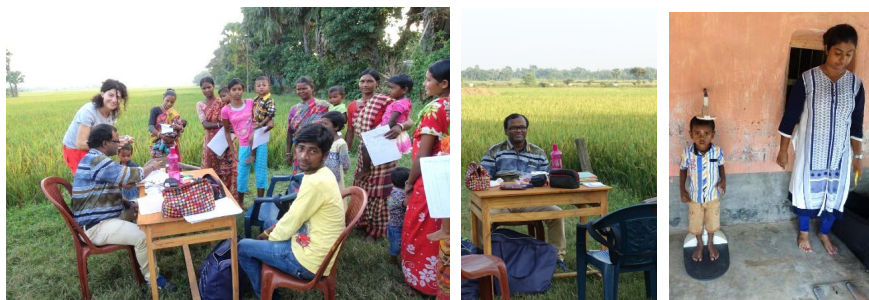
TB patients → DOTs TB-program + monitoring

Emergency patients → hospital

Hereby pregnant women are recorded and receive regular prenatal care supplementary to the ongoing government program (Asa-worker), neurological or handicapped children as well as children with a heart defect are guided inside the government schemes to receive the benefits or surgeries they are entitled for, Tb suspected patients are guided into the government schemes as well, anaemic patients receive iron drops/tablets, moderately and severely wasted children receive supplementary feeding (Nutri-Mix Instant powder, oil, milk powder, sugar) and mothers are instructed to enrich the porridge with vegetables and fruits of the kitchen garden. Mothers are trained and supported by village workers to administer the medication regularly and in the right dosage. This improved screening system shall further identify all emergency patients that need immediate treatment.



Pictures: Medical checkup in the village and measurement of hemoglobin with HemoCue Hb201+



Pictures: medical checkup and anthropometric measurement

The table below represents the numbers of patients seen in the village during medical checkup in 2019.

Month	Total Patients seen in the village	Child	Adult	Pregnant
04.2019	221	214	5	2
05.2019	-	-	-	-
06.2019	-	-	-	-
07.2019	39	28	09	02
08.2019	-	-	-	-
09.2019	106	89	5	12
10.2019	116	93	8	15
11.2019	259	227	25	07
12.2019	123	114	9	-
01.2020	471	426	-	45
02.2020	-	-	-	-
03.2020	-	-	-	-
TOTAL	1335	1191	61	83

The tables below illustrate the hematological and anthropometric measurements in the year 2019 and associated interventions in 12 villages (Shining Eyes India) and in 21 villages (in cooperation with Bolpur Manab Jamin). **In the 12 villages** the following number of children receives respective interventions: Nutri-Mix (n=132), Tonoferon (n=155) or Glyzifer (n=8). In total, 18.2% of children suffered from moderate to severe forms of wasting (WHZ<-2SD), 49.1% of all children (n=332) receive iron therapy and 39.8% receive NutriMix. **In the 21 villages** the following number of children receives respective interventions: Nutri-Mix (n=239), Tonoferon (n=297), or Glycifer (n=34). Of a total of 411 children, 25% suffered from wasting (WHZ<-2SD), 80.5% receive iron therapy and 58.2% receive NutriMix.

Overview 12 villages (check-ups 2019)													
No.	Village name	Total number of children	WHZ Score							HB<10g/dl	Intervention		
			+2SD	+1SD	0SD	-1SD	-2SD	-3SD	-4SD		Tonoferon	Glycifer	Nutrimix
1.	Bishnubati	29	--	4	--	12	11	3	--	9	14	--	14
2.	Baganpara	30	--	1	--	7	15	6	1	15	18	1	17
3.	Bautijol	13	--	--	--	3	4	5	1	8	9	--	7
4.	Monedanga	20	--	--	1	9	8	3	--	4	5	3	7
5.	Khejurdanga	33	--	1	--	18	6	7	1	10	12	--	12
6.	Panchabanpur	7	1	1	--	3	2	--	--	1	4	--	1
7.	Kulbuni	34	--	2	1	15	8	7	--	15	16	1	13
8.	Ghosaldanga	42	--	6	3	16	11	6	--	14	15	--	13
9.	Pathar Gatha	27	--	1	--	10	10	5	--	11	16	--	13
10.	Dholtikuri	34	--	2	--	12	12	5	2	15	14	--	11
11.	Tantbandi	19	1	3	1	2	8	4	--	9	12	2	9
12.	Bekajol	44	1	6	3	13	16	6	--	12	20	1	15
	TOTAL	332	3	27	9	120	111	57	3	123	155	8	132

Overview 21 villages (check-ups 2019)													
No.	Village name	Total number of children	WHZ Score							HB<10g/dl	Intervention		
			+2SD	+1SD	0SD	-1SD	-2SD	-3SD	-4SD		Tonoferon	Glycifer	Nutrimix
1.	Nurpur-2	7	0	1	0	0	4	2	0	4	5	0	4
2.	Hatrasulganj-2	24	0	1	2	8	8	4	1	10	11	1	12
3.	Mitradanga	36	0	1	0	7	12	14	0	25	30	0	22
4.	Charakdanga	10	0	0	0	3	3	3	1	2	4	2	8
5.	Hatrasulganj-1	27	0	4	0	8	7	8	0	14	19	0	16
6.	Muluk Kalitala	40	0	2	1	7	22	7	0	18	26	0	19
7.	Paruldanga	39	1	1	0	14	17	4	2	16	26	0	21
8.	Ballavpurdanga	21	0	0	0	4	9	8	0	7	10	1	13
9.	Borodanga	15	0	0	0	2	5	8	0	6	9	3	13
10.	Ramlakhandanga	13	0	0	1	2	8	2	0	7	7	2	8
11.	Itedanga	15	0	1	0	2	11	1	0	8	10	2	10
12.	Konrapara	21	0	1	1	10	6	3	0	11	15	1	12
13.	Binodpur	24	0	1	0	3	12	7	1	12	14	2	14
14.	Abhirampur	6	0	0	1	0	5	0	0	4	5	0	3
15.	Amradanga	25	0	1	2	4	14	4	0	14	19	0	13
16.	Chandanpur	22	0	1	0	4	11	6	0	13	0	15	13
17.	Borobagan	8	0	0	0	2	4	2	0	1	3	1	6
18.	Kantabagan	16	0	1	1	6	6	2	0	11	14	0	9
19.	Kankutia-2	25	0	2	0	6	10	7	0	15	15	3	13
20.	Nurpur-1	10	0	1	0	1	5	3	0	6	6	1	6
21.	Hetedanga	7	0	0	0	3	2	2	0	4	5	0	4
TOTAL		411	1	19	9	96	181	97	5	208	297	34	239

3 Activities in the St. Mary's Child and Mother Health Care Centre

Six days a week our team offers our services in order to provide medical treatment and health guidance to vulnerable people, in particular mothers and children. At the reception patients are welcomed and guided through anthropometric measurement, nutrition and health education and medical treatment by local or voluntary doctors.



Pictures: our team (nurses, assistants, pharmacist, kitchen staff, driver, Dr. med. Monika Golembiewksi) in the St. Mary's Child and Mother Health Care Centre (left). The pharmacy and reception team (Brototi, Dorothe, Saraswati, and Purnima) (upper right). Satya –our accountant, is also active in nutrition counseling of patients (right bottom).

Local doctors are coming regularly to the health centre to provide their service during the OPD in the morning. Malnourished children and children with infections are being treated there. Moreover, TB-suspected patients receive diagnostic and are referred to the DOTS program. Two ambulance cars

are available for patient transport to transfer emergency patients to Sian/Bolpur Hospital, and if needed to the medical colleges in Badhwan and Kolkata. The guidance and assistance of patients is a main goal of our activities. Adivasi people often face difficulties in approaching medical services by themselves, they get more easily lost or rejected when being referred to a more distanced health facility as not knowing how to make appointments or deal with bureaucratic barriers. Thus, one staff member is specialized to guide patients to the right medical section and contact the doctors there. We remain in relation with the patient until he/she will be discharged and look for the follow up and provide the needed medicines. To seek for vulnerable patients in the village, refer them to our hospital/or specialized health facilities with subsequent guidance into government schemes or through needed diagnostics/treatment is a key responsibility of our team. Sometimes patients lack a health card they are entitled to, which we help to organize with them together. After discharge of the patient holistic follow-up on village level is performed.

The St. Mary's Child and Mother Health Care Centre could arrange 14 surgeries in the last year (spine surgery, hernia, uterus prolapse, tumor, biopsy, urethra reconstruction, gallbladder, knee operation (TB), polyus stenosis, uterus fibroid, hip joint, heart surgeries etc.).

In this established preventive health care centre mothers from the villages receive awareness about nutrition, hygiene, child health care and emergency signs, pregnancy, complications during delivery and family planning methods, malnutrition and anaemia. Our staff members who are trained give in the morning short seminars to our mothers of the indoor patients about malnutrition and primary health care. Volunteers (doctors, nurses, nutritionist) from abroad join regularly to offer special medical trainings to our staff.

Once a month our Trustee Prof. Dr. Swapan Mukhopadhyay continues to give his free medical service in this health care center especially for the neurological children. Several Indian practitioners, and volunteers are supporting the indoor activities. Dr. Basu is coming three times a week for adult patients and Dr. Mondal provides his pediatric services.



Pictures (from left to right): Dr. Mukhopadhyay (neurologist), Dr. Basu (practioner for adult patients), Dr. Golembiewski (paediatrician), Dr. Mondal (paediatrician)

From 2019 onwards we receive support from a dentist, who now joined our team. He already provided community awareness inside our Centre. The dentist chair was provided by the German consulate. The dental service is highly needed, as many children suffer from caries, which is rather a consequence of malnutrition than extensive sugar consumption.



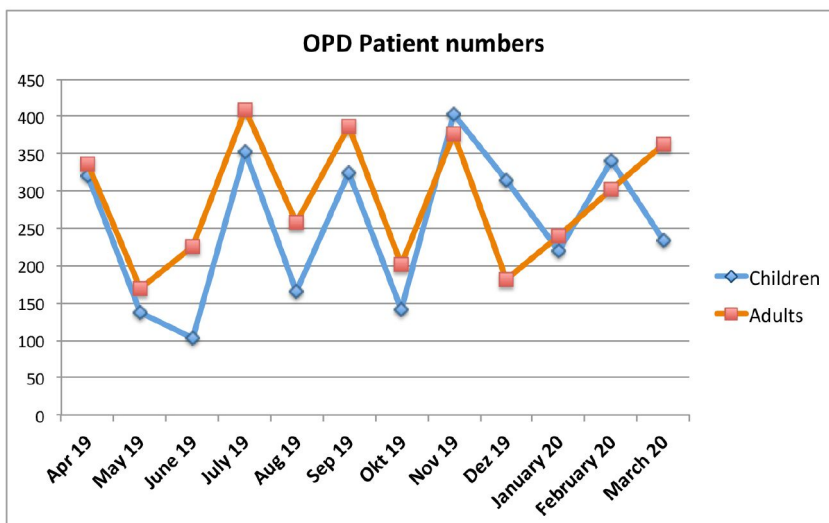
Pictures: our dentist, community awareness to raise awareness for dental problems

3.1 Outdoor patient numbers

St. Mary's Child & Mother Health Care Centre April 2019-March 2020

Outdoor patients			
Months	Children	Adults	Total
April 19	320	336	656
May 19	137	169	306
June 19	103	226	329
July 19	353	409	762
August 19	165	258	423
September 19	325	386	711
Oktober 19	141	202	343
November 19	402	376	778
Dezember 19	314	181	495
January 20	220	240	460
February 20	341	302	643
March 20	233	363	596
Total	3.054	3.448	6.502

This year 3054 children, 3448 adults, this means a total of 6502 patients were investigated during OPD. The patient flow over the year can be seen in the figure below.



3.2 Indoor Patient numbers

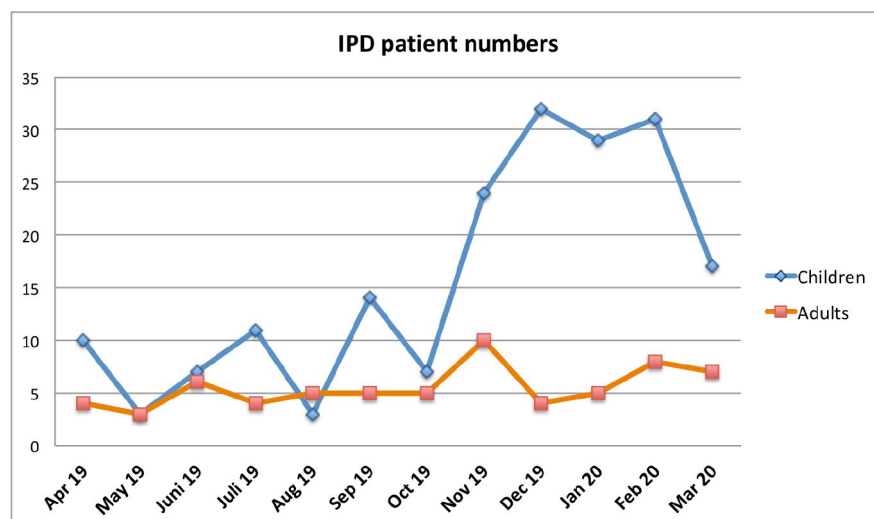
St. Mary's Child & Mother Health Care Centre April 2019 - March 2020

The St. Mary's Child and Mother Hospital has 10 beds to admit patients who need supplementary feeding or are waiting for referral to other health facilities. In this year 66 adults, and 188 children were admitted with an average time of admission of 12 days and 13 days, respectively.

The table below illustrates the number of indoor patients admitted per month in our health care center as well as the average inpatient time.

Indoor patients	Adults		Children		Total no. of admitted people
	Months	Number	Average time of admission (days)	Number	
Apr 19	4	9.5	10	10.5	14
May 19	3	13	3	11.5	6
Jun 19	6	12.5	7	13.5	13
Jul 19	4	6	11	15	15
Aug 19	5	9	3	10	8
Sep 19	5	9.5	14	9	19
Oct 19	5	16.5	7	14	12
Nov 19	10	12	24	9.5	34
Dec 19	4	13	32	11	36
Jan 20	5	7	29	8	34
Feb 20	8	5	31	7	39
Mar 20	7	3	17	8.5	24
Total	66	12	188	13	254

The number of patients having been admitted per month can be seen in the figure below.





Picture: hospital school teaching for long-term admitted children

3.3 Diagnostic

The Health Care Centre offers diagnostic pathology and diagnostic x-ray to patients in need.

- *Laboratory and X-ray report April 2019-March 2020*

	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Total
Total No. of Lab tests	121	106	110	154	142	102	62	108	102	91	121	42	1261
X-ray	58	39	45	76	41	74	34	63	49	76	49	38	642
Total Lab (incl. x-ray)	179	145	155	230	183	176	96	171	151	167	170	80	1903



Pictures: Our hospital coordinator Debashis Roy Chowdhuri and village program coordinator Jayanta Das (left) during laboratory works. Debashis Roy and Dr. Golembiewski in a meeting with the sub-divisioner (SDO) Bolpur

Dr. Nurul (cardiologist) assists us once in a month to screen heart-defect suspected children. Once a week a general ultra-sonography is taking place for adults, children and pregnant women.

- *Ultra-Sonography (USG) from Apr 2019 to March 2020*



Number of USG patients			
Month	Children	Pregnant	Adult
Apr 19	1	3	11
May 19	2	18	15
June 19	-	2	9
Jul 19	1	8	21
Aug 19	1	7	13
Sep 19	3	11	20
Oct 19	-	2	7
Nov 19	4	11	20
Dec 19	2	3	10
Jan 20	1	3	13
Feb 20	1	6	9
Mar 20	1	2	16
Total	16	76	164

Prenatal care is an important segment of Shining Eyes India, of course without gender detection. In case of unwanted pregnancies, Shining Eyes India supports the woman to keep her child, or helps to bring the child to religious sisters for further care. The USG is taking place at least once a week for pregnant ladies but also all kinds of diseases.

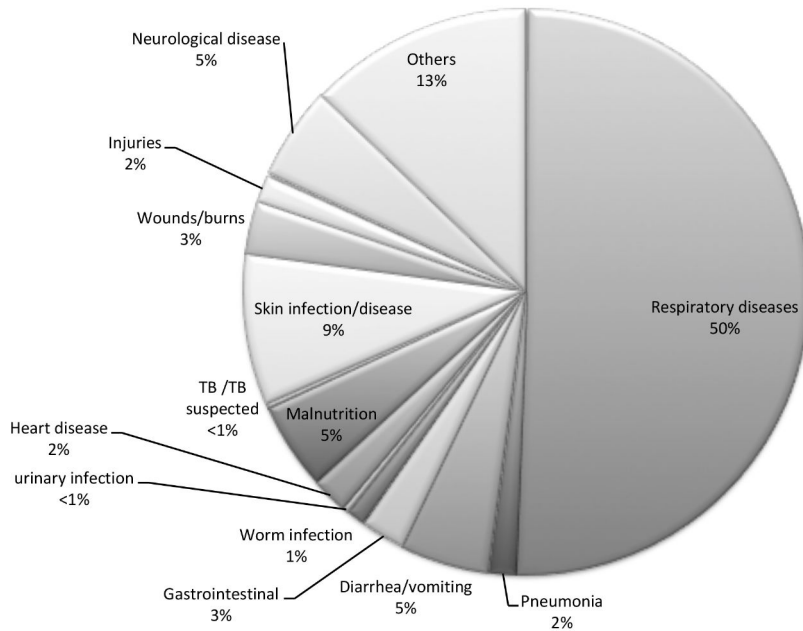
- *EEG patients during last year April 2019 to March 2020: 85 patients*
- *Gynecological screenings*

Our gynecologist Dr. Utpal coordinated cancer screenings at the St. Mary's health care center. Hereby a total of 501 gynecological screenings took place in the year 2019/2020, during the weekly offered consultation hour. Dr. Utpal also organizes gynecological and surgical interventions in other health facilities (hernia, anal stenose etc.)

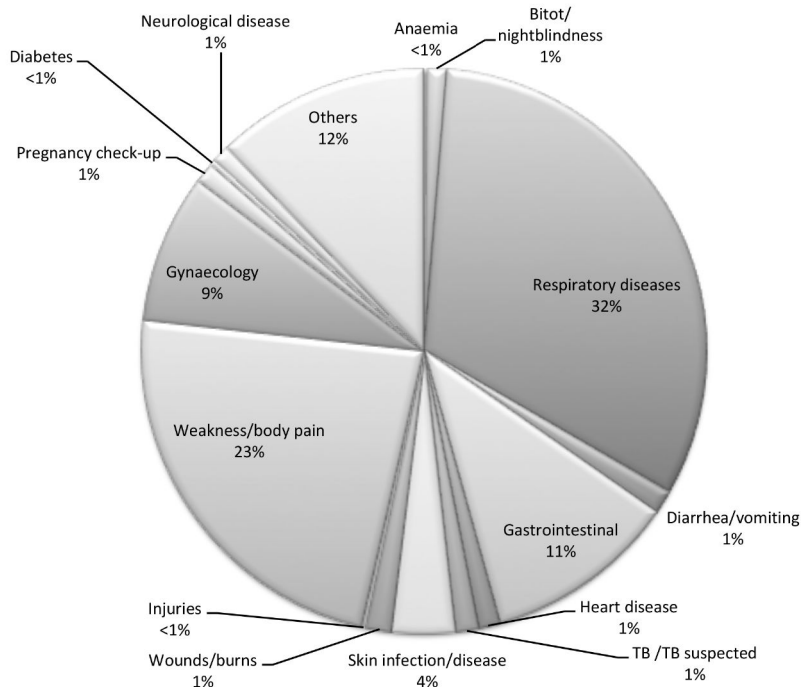
3.3.1 Number of diagnoses OPD and IPD

Respiratory diseases including pneumonia, skin infections, neurological diseases or gastro-intestinal problems with diarrhea or vomiting were most frequent diagnoses among children during OPD. Adults most frequently suffered from respiratory diseases, weakness/body pain, gastrointestinal or gynecological problems. For admission of children (IPD) malnutrition, respiratory diseases, tuberculosis (TB) (extrapulmonary or bone TB), or neurological handicaps were the most frequent reasons for admission of children. Similarly TB, neurological diseases, and respiratory diseases were amongst the most frequent diseases for admitted adults.

OPD children (diagnoses)



OPD adults (diagnoses)



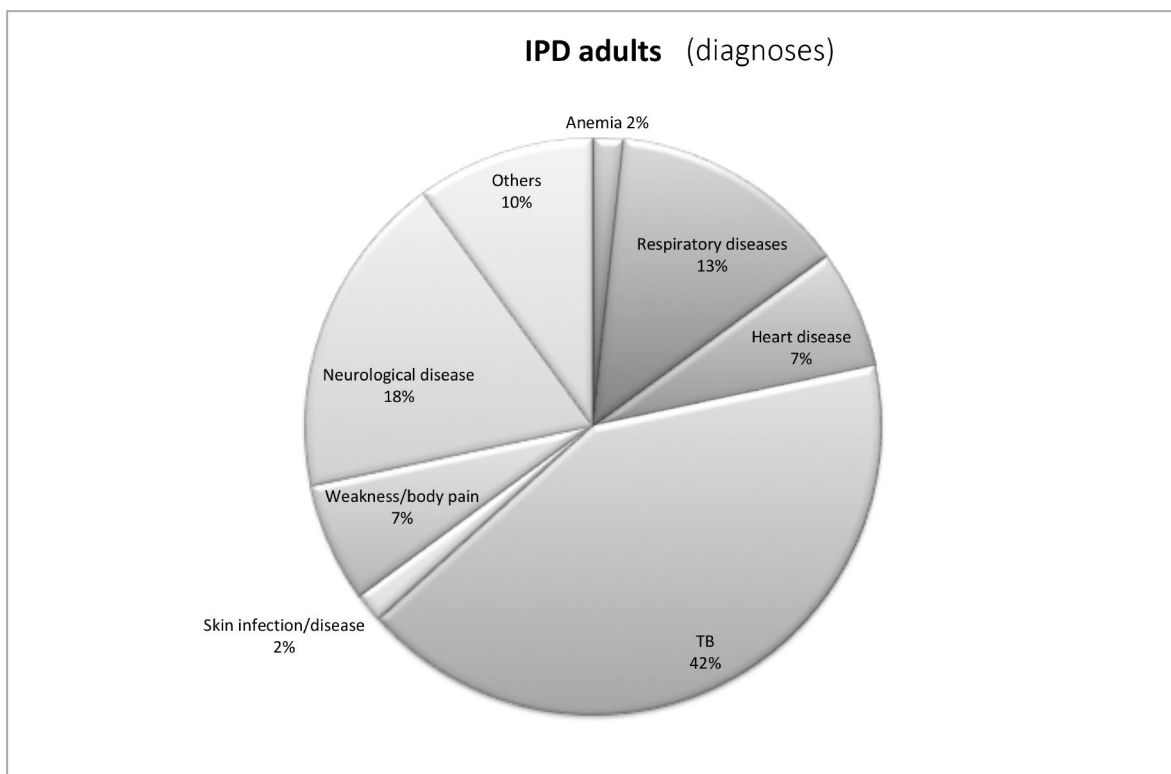
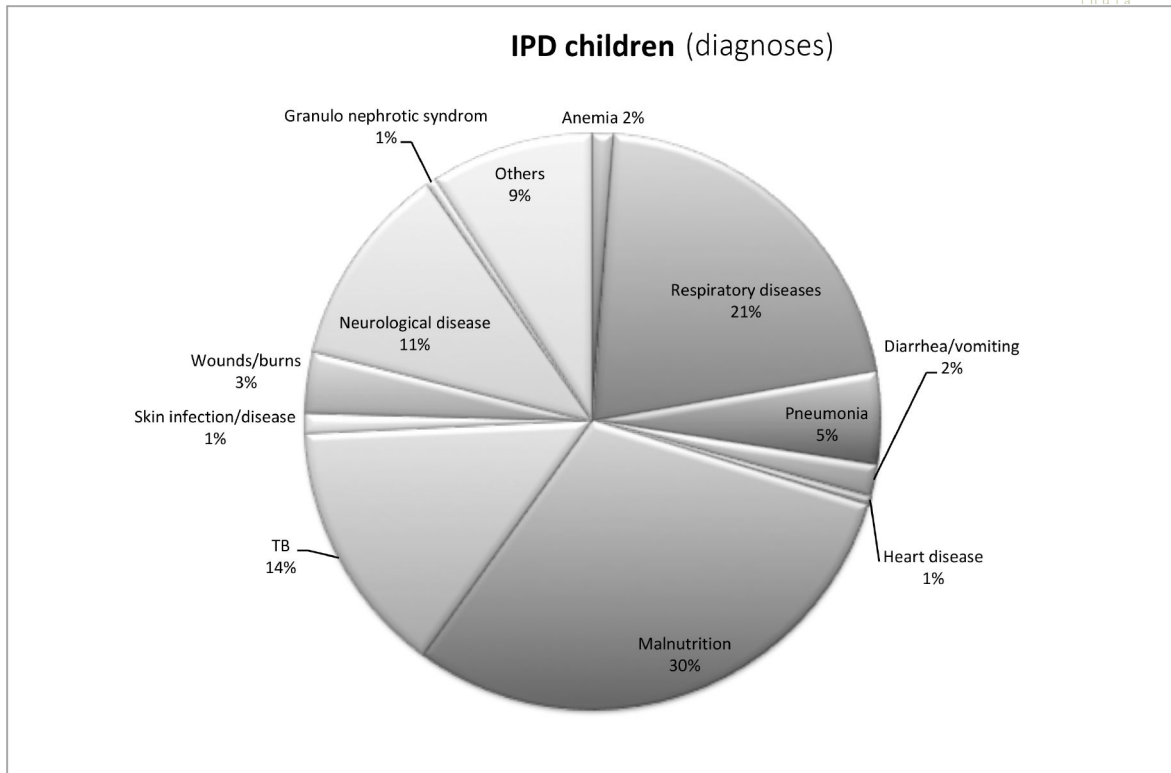


Figure: OPD and IPD diagnoses children and adults

3.4 Case presentation

Sumitra Hembru, 18 years



Sumitra came with a huge heart bag fluid which compressed her heart in the beating capacity. Our cardiologist DR. Nurul (from Durgapur /World Health Institute) removed the fluid in his specialized cardiac hospital and detected an autoimmune disease. It's a form of scleroderma, this stiffens joints, the skin become hard and inelastic. Thereby pain is caused and the freedom of movement is restricted.

After getting the conservative treatment through a rheumatologist she recovered well and got back her shining eyes and laughing face. Now she can stitch bedcovers with good handcraft.

Tuhin, 6 years



Tuhin came into our Health Centre with high fever, swollen joints, a heart failure and in a critical condition. Our cardiologist detected a rheumatic fever and started the treatment under which he recovered nicely and could walk again with enthusiasm.

Kiran Das, 4 years



Kiran, who suffered of a nephrotic syndrome, came very weak with an enlarged abdomen containing fluid. He was losing protein because of a kidney infection. With the treatment of our local pediatrician and our indoor care he recovered nicely.

Chobi Tudu, 3 years



We found Chobi in the village Baganpara. She was very weak with a Hb of 2,5mg%. The family has 3 children and is very poor. She got a blood transfusion at Sian hospital. Afterwards she and her mother were admitted to our center for over a year, with regular Hb checks and many awareness training courses on topics such as hygiene and nutrition. Now all of the children have a stabile Hb over 10mg% and they could reduce their severe infection rate (pneumonia).

3.5 ECHO and ECG

Our coordinator guides the patients to other hospitals, where they need the further operations or diagnostic, which is not possible to be arranged by the Santhals themselves. We help to implement the government schemes like Shishu Shati scheme after detecting children in the villages with heart sound, then we guide them for the needed diagnostic, ECHO and ECG and registered them in Suri medical hospital. For the urgent cases we get appointments for operation in Durgapur mission hospital, which is free of cost.

Children aged below 16 years receive a heart surgery free of cost in the scope of the Shishu Shati scheme. A total of 102 children were screened for any heart anomalies/defects. Thereof 40.2% had no defect, whereas 59.8% suffered from any anomalies or defects. Of these 27 children 96.7% were further monitored, and 3.3% received a surgery (Table below).

Total number of children screened for heart defect	Number of children with no defect/anomalies	Number of children diagnosed with any heart defect/anomalies	Number of children monitored	Number of children needing a surgery
102	41	61	59	2



Picture: Our village program coordinator Jayanta Das guides heart patients to other health facilities that they receive their needed surgery

Case presentation: Arfa Kathun



Arfa was born two years before with a severe heart failure. Her oxygen saturation was always too low which severely restricted her movement and development. Under the treatment of the Shishu Shati scheme she got a lifesaving operation and recovered quickly to a normal developed child.

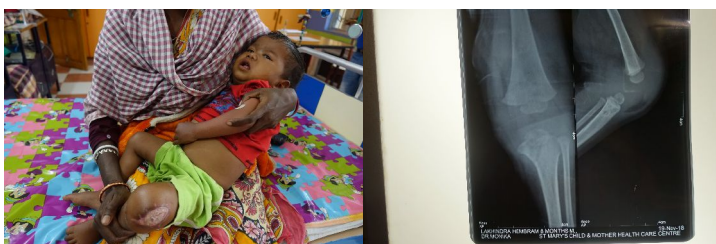
4 TB screening and diagnostic

The trust continues to find out TB suspected patients to bring them to the DOTs program. During village visits we find frequently TB suspected patients who suffer from cough for a long time or have enlarged lymph nodes. Children are found especially with extra-pulmonary TB, like bone TB. We refer them to the Health Centre for diagnostic which is provided free of cost (x-ray and Mantoux, blood test is available, FNAC/biopsy is organized from an outside lab). St. Mary's social workers are trained to monitor the TB patients supplementary to the government workers (Asa workers). Awareness trainings are provided to the newly registered TB patients, who are included in the DOTS program and receive additional supplement food by us. Our social workers make house visit of the TB patients to emphasize them of a continuous treatment. In this year a total of n=60 patients were screened for TB (TB-suspected), and n=21 (35%) were confirmed with TB.

Case presentation: Chandan Hembrum and Lakhindar Hembrum



When Chandan (7 years) came to us at the health care center, he had been suffering from a bone infection for two years, which did not heal. A doctor in Kolkata diagnosed bone tuberculosis. Under ATD he recovered from the consequences in our center and could be operated later.



At the age of eight months Lakhindar was admitted to our center because of osteomyelitis in his knee. The antibiotic therapy did not work and the wound kept opening. Later, he was also diagnosed with bone tuberculosis, which healed well under ATD. For this time, he stayed with us and also later, when he will need the operation, we will accompany him.



Picture: Chandan and Lakhindar fully recovered

5 Preventive Newborn Checkup Day

In September 2018 a “Newborn program” was launched in order to achieve “Improvement of the provision of health care for Adivasis, West Bengal, India”. Also, here the focus is placed on raising awareness and early identification of vulnerable individuals through medical checkups. Health workers and social worker receive trainings, perform community awareness trainings or regular house visits in order to assist villagers in diverse issues (monitoring of kitchen garden keeping, monitoring of proper application of prescribed Tb medication or iron drops/tablets, counseling mothers in cooking with a variety of vegetables and use of Nutri-Mix for malnourished children etc.). Aside the counseling activities inside the health care center and the villages, the Newborn Day – a preventive medical and early detection examination is the primary focus of the program. Hereby women are invited with their newborns and young infants in order to receive a preventive medical check-up for themselves and their children, awareness training, a nutritious meal and a take home ratio (free-of-cost). The checkup is inspired by the German U-examinations system (foremost U2-U6). Thereby sicknesses, anemia or heart defects can be detected at an early stage of life. Children receive proper treatment and care. Mothers themselves gain knowledge in topics like breastfeeding, appropriate complementary feeding, how to identify sickness in their children, or family planning methods. The program is well accepted, and the demand is increasing from the surrounding villages. The „Newborn day“ medical check-ups are attended by social workers who give counseling sessions to the mothers and coordinate patients through the day. A consequence is that the social workers became more sensible towards vulnerable children. By themselves they recognize neurological movement disorders, or development deficits of children in the villages and bring them to the hospital, as also they became more aware about the milestones of proper child development.

The whole implementation has been successfully established during the last 1.5 years, altogether 237 Newborns/infants and 236 mothers received a preventive checkup and awareness training until March 2020. Santal mothers are glad about that free-of-cost possibility for health checkup of their babies, and show high acceptance and positive feedback. Mothers who come for repeated checkups show an increase in awareness about healthy nutrition and recognize the importance of Moreover, mothers realize the importance of appropriate complementary foods from the sixth months of child’s life on, and to treat sickness in time, foremost they come with “clean” babies even using dia-

pers, and show that their understanding of hygiene has increased. They know that proper development of their child is decisive for a better school attainment in later life, thus understand determinants of the intergenerational cycle of malnutrition and poverty. They understand the term anemia and the need of iron drops and healthy nutrition, and now come frequently by themselves when their baby gets sick, as they gained trust and awareness for a timely medical treatment. Most newborns have a Plagiocephalus, which is suspected to be a consequence of the monotone one-sided carrying position as practiced by mothers. Now mothers are counseled to more frequently change the side of carrying their baby.

The following pictures show the medical checkup conducted by the German pediatrician Dr. Monika Golembiewski. The Newborn checkup allows to detect lip cleft palates, club feet, heart defects or developmental delays at an early stage. One major finding of that newly introduced Newborn day is that almost every child below one year suffers from moderate forms of anemia. Thus, the preventive Newborn Checkup helps to treat anemia immediately to avert physical as well as mental disadvantages that may arise from long-lasting iron deficiency.



Picture: anthropometric measurement of Newborns in the village by health worker team, to include all newborns into the preventive newborn program. Mothers and their babies are invited into the health care centre for further measurements, diagnostic/treatment and awareness training



Pictures: Mothers having come with our shuttle service are waiting for medical checkup of their children



Pictures: Medical consultation hour with the pediatrician Dr. Golembiewski during Newborn checkup days

Preterm babies are of special need to receive optimized treatment and monitoring. The German nurse Clara Kürsch and the pediatrician Sabrina Stadler ensured proper care of admitted newborns and also coordinated health worker and social worker trainings.



Pictures: The pediatrician Sabrina Stadler investigates a preterm baby

Newborn Check up- Preventive check up in the first year										
Hb mother	Age child	Suppl. feed Rice-r Dhal=d Veg=v Egg=e	Weight	Length	HC	- ZS	Hb	Findings	Follow up Tonoferon 10' drops<6m 20' drops>6m	Mother Iron(30) 3 months
9,2	4m	U4	5,5	63	40	-3	7,5	Eye infection Nose infection	T	x
10,4	2m	U3	4,5	56	37,7	-1	8,3	Fungus infection skin	T	x
9,9	8m	U5	6,2	64	42,3	-2	8,4		T	x
12,1	10m	U6	7,5	71	42,2	-2	9,9		T	
9,5	8m	U5	7,2	68,5	40,4	-1	8,5		T	x

Picture: documentation of patient data obtained during Newborn Days

All data obtained during medical checkups are recorded to observe individual long-term effects of iron treatment. Indian doctors are integrated in the preventive Newborn routine. They openly accept the preventive approach, even though according to the Indian system (and over-burdened health care system) they are more used to provide acute-medical aid without preventive actions during their services. But in our Centre they are given the time to provide counseling to the mothers, and the Indian doctors embrace this new way of conducting checkups. Mothers are gaining awareness about the importance to maintain the health of their children, they build trust and come more and more also by themselves to us (without the shuttle-service), when they feel their child is sick.



Pictures (from left to right): nutrition and health counseling, preventive medical checkup in cooperation with Indian doctors. Baby suffering from a too high heart rate, and a much too low oxygen supply due to a severe state of pneumonia. Only in the scope of the preventive newborn checkup this bad health condition of the baby was detected, as for the relatives the severity of the situation was not palpable. This is one example explaining the high rate of death during the first two months of a child's life and makes the Newborn preventive checkup so valuable



Pictures: Mothers are trained in awareness topics during the Newborn Checkup day



Pictures: Mothers are receiving a warm-meal after medical checkup, and after awareness trainings

6 Cloths for children

Also, in the winter season of 2019/2020 we have distributed warm clothes for the children under 5 years, this time inside the St. Mary's Health Care Centre. The children happily welcomed the warm socks, knitted caps and pullovers. In the village Kulbuni we also distributed clothes.



Pictures: Cloth distribution in the St. Mary's Centre and the village Kulbuni

7 Trustees

The Trustees remained in the year of 2019/20 as per the starting point of this charitable trust three years earlier. Note: new board community was formed on the general annual meeting on 14/07/2019.

The following list presents the Trustees and their designations:

	Name	Designation	Profession
1	Prof. Dr. Swapan Mukhopadhyay	President	Medical practitioner
2	Snehadri Shekar Chakraborty	Secretary/Settler	Service
3	Satyanarayan Roy	Treasurer/Settler	Social worker
4	Dr. Sujit Kumar Paul	Trustee	Service
5	Dr. Monika Golembiewski	Trustee	Medical practitioner

Only Satyanarayan Roy is working on a daily basis and getting a honorium from Shining Eyes India, all other members are working on a voluntary basis.

The overall goal of this charitable trust is to provide medical care and guidance mainly to the needy children and mothers in the rural area. This includes presently curative measures with follow-up and village health checkups as well as preventive programs to improve nutrition and hygiene. The trust works presently for the poor and tribal families surrounding Bolpur at Birbhum District.

The focus is to give care for malnourished and anemic children, pregnant women, handicapped children and also TB patients for diagnostic and medical support. This is conducted in “St. Mary’s Child and Mother Health Care Centre” at Makarampur, Bolpur.

The Trust enjoys 12 AA and 80G benefit.

Contact

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