



Year End Report 2017

Greetings from Sumba!

2017 was a growing year for The Sumba Foundation. With the success of the fundraising event in San Francisco fresh in the air and the hiring of new staff in key positions late in 2016, we were posed to head into 2017 with a fresh focus on expanding the many projects already covered by the foundation. New support from the government also allowed us for better positions with access to medication and joint collaborations for expanding our training programs for local nurses in the health sectors throughout Sumba. Below is a recap of the work achieved through the course of 2017 along with some highlights of particular examples of where the direct intervention of The Sumba Foundation changes the lives of people within the local communities. We have also taken the opportunity to share with you all some of the plans for 2018 and what you can expect from the various teams and project work that will take place over the coming year.

So, sit back, take a moment to collect those memories of your last visit to this special island and the people you encountered along the way and enjoy reading up on the work that has been done with your support.

Our sincerest gratitude,

A handwritten signature in black ink, appearing to read 'Kenny Knickerbocker', with a long horizontal flourish extending to the right.

Kenny Knickerbocker
General Manager

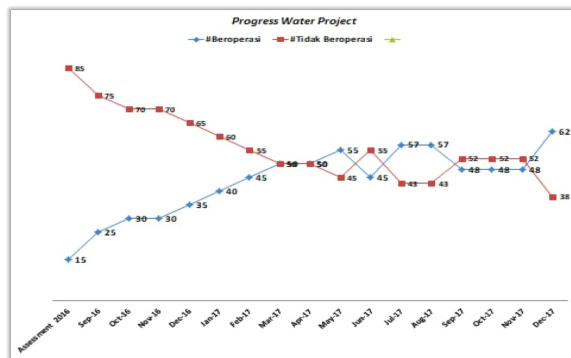
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Cover photo and end page photo courtesy of Jason Childs (instagram @childsphotos)

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Water Project

Since September of 2016 the water project team has focused on primarily on renovating projects that use either gravity fed systems or electric submersible pumps. The initial program was set on renovating 19 water projects and through the course of 2017 that number increase to 21 as two brand new projects were added into the program for extending our coverage. Out of the 21 projects, 13 (or 62%) are now fully operational, up from only 15% in September of 2016. These renovations and new projects are benefiting 5,536 people spread across 8 Desas in Lamboya and Wanokaka, (Hobawawi, Rua, Prairara, Weihura, Bali Loku, Watu Karere, Kabukarudi and Lamboya Dete) at the following water project sites: Galuwatu, Weikabonu, Mata Weimarada / Hobawawi II, Hutan Jati, Pateaung Jara, SMA N1 Wanokaka, Bali Loku, Alang, Larawatu, Welajung, Werata, Lolowo and Sodana. See the chart to the right for year rundown. The 13 water projects in operation are comprised of 131 water constructs broken down as follows: 15 wells, 54 profil fiber water tanks and 62 faucet stations.



Wells: During 2017, the water project team has successfully completed the construction of 5 wells



Welajung before renovation



Welajung after renovation

the before and after photos of the well constructs and the renovation.

(3 new wells – SMA N1 Wanokaka, Praikoiki and Werata and 2 renovated old wells – Larawatu and Welajung). The renovation work for the wells at Larawatu and Welajung created new containment structures allowing better control over keeping the water clean and potable and at the same time safer for those using the well and water source. Above you can see



Watu Ngodu Water Tank and Faucet before renovation



Watu Ngodu Water Tank and Faucet after renovation

Profil fiber water tanks and faucet stations: Out of the 54 profil fiber water tanks, 17 were constructed or renovated over the course of the year across the 13 projects. The remaining 37 profil fiber water tanks that were not renovated did have a need for more extensive work and therefore routine maintenance was carried out as and when necessary throughout the year. As for the faucet stations, 16 new faucet stations were created

and 2 previous faucet stations were completely renovated and the remaining 44 other faucet stations are still in good enough condition that they do not require any additional work beyond routine maintenance and replacement of spares as necessary.

In addition to the work mentioned above, the team along with the local participation from the various benefitting communities has laid more than 15,000 meters worth of new piping to connect/reconnect stations to each other and to the main well water source, installed electricity into two separate projects, built a new PLN electrical room at Werata and completely renovated the main generator room at the Larawatu project.



All of the afore mentioned work would not be possible without Community Participation. The water project activities undertaken in 2017 involves the active participation of the communities who are benefitting from the water projects operating today, both on renovated and

new projects. The forms of community participation are: to be involved in socialization meetings of clean water in the villages, actively assist in excavation of pipelines and installation of pipes and power lines, helping with the transportation of building materials. In addition, the community also contributes Batu Gunung (a local rock), rice, coffee and tea during the implementation of the project.

As we look forward to 2018, we have achieved a considerable progress in upgrading and re-establishing our water projects over the past 1.5 years throughout our coverage areas, however there is still much to be done.

Nutrition Projects

After addressing the major concerns of water and health care in our core coverage area, we began to look at children specifically as they are the future of the Sumba. In 2008, we started the school lunch program providing healthy, nutritious high-protein meals for students in two Primary Schools, encouraging class attendance, and providing the necessary means for mental growth and development and launched our Infant Nutrition Project starting with direct intervention for just 6 children who were life-threatening severely malnourished.



Stunted in growth is a massive problem in rural Sumba and we find as many as 70% of school children being below the normal average height and weight for their age. This is the results of a multitude of problems in the local diet and availability of food. First of all, there is just not enough food for all and the standard local meals are low in calories, protein and micronutrients. Also, the children in rural Sumba normally do not get any form of lunch pack or snack when they go to school and even breakfast can be a random treat. To



alleviate these major issues, we added the malnutrition program in 2008 and the school lunch program in 2010 and have since been expanding these programs to reach thousands of children.

School Lunch Program 2017

In early 2017 we were serving school lunch twice a week at six different Primary Schools: Kadoku, Larawatu, Anakaka, Padedewatu, Pantai Rua and Alang School totaling 983 children. The menu consists of: rice, vegetable, egg or fish and is sometimes interchanged with mung bean porridge enforced with milk. Often the kids have to go to school without any breakfast so by 10-11 they are starving, why the school lunch also becomes hugely important for their capacity to focus and learn.



We do not only feed the kids but in between normal lessons we teach them about nutrition and importance of protein and vitamins in their daily diet. If we have enough food for the primary serving we give the remaining food for the children to bring home to their siblings. Another great result of this lunch program is that attendance is always be 100 % on the days we provide food and sometimes the children will even bring their younger brother or sister to school to get a proper meal.

At the end of 2016 our friends and supporters in San Francisco held a hugely successful fundraising event that has made is possible for us to massively expand our capacity to cook large numbers of meals and cover even more schools with high quality meals. Our goal was to double our capacity within a 6 months period. In the first quarter of 2017 we built a brand-new school lunch kitchen, expanding from 4 cooking stations and 1 preparation area to 16 cooking stations and 2 preparation areas (one for vegetables and the other for raw meat and other produce). In addition to building a new kitchen, we purchased two new vehicles to help cope with the additional transport of food and added 5 new kitchen staff.



The school lunch team now consist of 9 staff that purchasing, prepare, cook and transport the

School lunch increase 2016/2017			
	2016	2017	Increase
No schools	5	11	120%
No children	983	2,394	144%
No meals/week	2	3	50%
Total meals/month	8,272	20,752	151%
Total meals/year	82,720	207,524	151%

thousands of weekly meals. By June 2017 we could add 6 more schools to our program, so in total we now serve 11 primary schools with a total of more than 2,394 children. Also, instead of providing 2 meals per week, all 11 schools now receive 3 meals per week, why during 2017 we could deliver a total of 207,524 healthy

meals to 3,632 children! The meals are also further improved and the menu is now: 2 days with rice, vegetable, fish, egg or chicken, and 1 day with mung bean porridge. Please see details below to illustrate how many schools and lives we now support and the increase in program coverage from 2016 to 2017.

School lunch program 2017								
	School	Year included	Av. No children	From month	to Month	No months	Tot meal /month	Total Meals
1	Alang	2017	125	January	May	5	8	5,000
2	Kadoku	2017	150	January	May	5	8	6,000
3	Pantai Rua	2017	180	January	May	5	8	7,200
4	Padedewatu	2017	168	January	May	5	8	6,720
5	Anakaka	2017	360	January	May	5	8	14,400
6	Larawatu	2017	255	January	May	5	8	10,200
7	Palamoko	2017	182	June	December	5.5	12	12,012
8	Alang	2017	100	June	December	5.5	12	6,600
9	Batakapuda	2017	186	June	December	5.5	12	12,276
10	Watuliti	2017	156	June	December	5.5	12	10,296
11	Hobawawi	2017	370	June	December	5.5	12	24,420
12	Waimadaka	2017	190	June	December	5.5	12	12,540
13	Matanyira	2017	380	June	December	5.5	12	25,080
14	Matanyira B	2017	80	June	December	5.5	12	5,280
15	Pahanguladi	2017	210	June	December	5.5	12	13,860
16	Rajak	2017	385	June	December	5.5	12	25,410
17	Pantai Rua	2017	155	June	December	5.5	12	10,230
	TOTAL		3,632				180	207,524

Donor participation



We now have a lot of guests from Nihi Sumba Island visiting the School Lunch Program offering them the opportunity to visit us at the School Lunch Kitchen and help us cook, or to come out and meet and help serve lunch to the children at the schools who are benefitting from the School Lunch Program. In March 2017, we had some lovely guests who donated and help distribute proper shoes for the children at Alang school while we distributed their lunch. It is always great to have



guests visiting the school lunch project, especially when they bring their children so they can experience how tough life is for Sumbanese children and that a meal should not be taken for granted.

The goal for our School Lunch Project in 2018 is to add another 5 primary schools to the project and we hope to increase the number of meals we can serve per week. Thank you so much for all your support for the school lunch and for the kids in 11 primary schools in Sumba.

Malnutrition Project

After addressing the major concerns of water and health care in our core coverage area, we began to address the issue of severely malnourished children in our area. In 2008, we started the malnutrition program providing healthy, nutritious high-protein food starting with just 6 children who were life-threatening malnourished. The program has since expanded and by January 2018 a total of 1,017 children have been through our 6 months nutrition program.



The local government monitors all the areas babies once a month until the age of 5, hence why we work with the local midwives to collect information about any malnourished children. Once we have the information, we will double check according to the WHO growth charts and go visit the kids at their village to see their physical condition and enrolled them in our program. We choose a meeting point in each new area where we provide a weekly meal, measure the children and provide eggs, powdered milk and vitamins for the coming weeks home use. Every week we give all the children 1 box of powdered milk and 7 eggs. We also give them information about nutrition and basic information like how to use the powdered milk and cook in a hygienic manor.



We enroll children for about 6 to 11 months monitoring their weight gain and check and assist with any diseases on a once weekly basis. When the children reach the approximate proper weight for their age (based on the WHO international growth charts), we release them from the program so new children in need can be enrolled.

Population area	No Children	Av. Weight before	Av. Weight after	Gain, Kilos	Wight gain	Months in pgm	6 months gain	Meals	Milk/ box	Eggs/ grain
Nalo	25	10.4	13.3	2.9	29.7%	7.0	2.5	675	675	4,725
Alang	18	10.6	13.3	2.6	25.3%	6.5	2.4	486	486	3,402
Watukarere	21	11.3	13.2	1.9	17.9%	7.5	1.5	651	651	4,557
Lete Malaona	31	10.4	13.2	2.7	28.9%	6.0	2.7	744	744	5,208
Total 2016	95			2.5	25.5%	6.8	2.3	2,556	2,556	17,892
Ringurara	40	10.9	14.8	3.9	38.0%	11.0	2.1	1760	1,760	12,320
Palamoko	20	9.7	12.8	3.1	36.2%	10.5	1.8	880	880	6,160
Bodowunta	13	9.4	11.9	2.5	28.8%	6.0	2.5	312	312	2,184
Ubumaleha	70	10.4	12.2	1.9	19.0%	5	2.3	1400	1,400	9,800
Tailelu	42	9.7				7		1176	1,176	8,232
Total 2017	185			2.8	30.5%	8.1	2.2	5,528	5,528	38,696

In 2016, we helped 95 children for the year and in 2017 we doubled the number of children to 185.

	2016	2017	Increase
Children	95	185	95%
Meals	2,556	5,528	116%
Milk/box	2,556	5,528	116%
Eggs/grain	17,892	38,696	116%

Their average time in the program was 6.8 months in 2016 and 8.1 months in 2017 and the average 6 months weight gain was 2.2 Kilos. During 2017 we provided 5,528 meals for the children and gave them 5,528 boxes of milk and provided 38,696 eggs over the full year.

Vitamin Supplement

Starting in August 2017, we received a generous re-occurring donation of multi-vitamin supplement from Amway called Nutrilite Little Bits, that we now give out along with the food for the malnourished children. We mix it directly in the mung



bean porridge and serve it for the kids at our meetings and also provide each child with 7 daily sachets (in addition to a week's worth of powdered milk/formula and eggs) to bring home for the coming week. This Nutrilite Little Bits is high in Vitamin A and is really helping the malnourished kids.

Malnutrition Special Cases



Back in October 2016, we received information about triplets that was going to be born in our core area. Fortunately, the mother had gone to one of the Sumba Foundation Clinic to get USG Screening a week before due date, so our nurse could detect it and she could be referred for Section at the Government Hospital in Waikabubak. On 25th October 2016, she gave birth to 3 babies girls, all of which were well below the average newborn weight (even for Sumba where it is 2.5kg). The first was 1.4 kg and the last born only weighed 1.2 kg. We immediately started support and provided milks for the triplet and the mother.



All three babies survived and slowly started to gain weight. A beautiful story where we can truly say that our combined efforts of the mama2mama program, our clinics and the malnutrition program saved the lives of the 3 babies and most likely also the mother. We still monitoring the triplet every week. Their Name are: Asnia, Astria and Aulia.

It has now been a year since we help deliver the triplets and they are doing amazing with Asnia weighing 8.5kg, Astria 8.5kg and Aulis 8.2kg. We couldn't be prouder and this has all been possible because of The Sumba Foundations many supporters over the past years.

Health Projects

During 2017 our team of 18 nurses, midwives and other health professionals diagnosed and treated more than 32,000 patients through our clinics and many outreach programs throughout the island of Sumba. This is the highest number of annual cases we have helped over the past decade and indirectly we further assisted 100,000+ patients through the malaria diagnosis done by our MTC graduates working all over Sumba. More mosquito nets and eye glasses were distributed and our scholarship program quadrupled over the year. All of this was made possible by our dedicated staff and the many generous donations to The Sumba Foundation. We intend to assist, alleviate and save even more lives in 2018.



Sumba Foundation Clinics.

Our Foundation Clinics treated thousands of patients for a large range of infectious and non-infectious ailments during 2017. All diagnosis and treatment is free of charge and any person from any area can walk in to get free quality care. Our coverage area is therefore much larger than the core Malaria intervention area of about 20,000 people. In particular many people from Gaura travel up to 20 km to get to our clinic in Lamboya.

The total number of patients treated in 2017 was 22,189 and again the clinics with the highest number of patients were Hobawawi and Lamboya. Both clinics have very large coverage areas and have patients coming in from areas up and down the coast, in particular Lamboya see many patients from Gaura. The total number of patients dropped 14% compared to the all-time high (25,797) treated in 2016. Again in 2017 the most common ailments treated were respiratory infections, primarily flu and common cold, followed by general fevers, malaria infections and chronic pain (from heavy, manual farm work). Illustrated here is the total number of cases of the

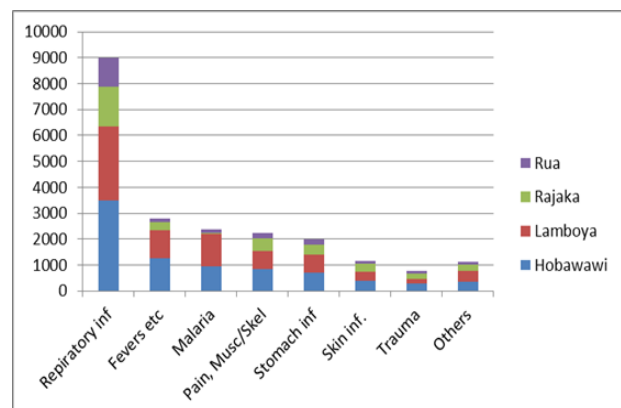
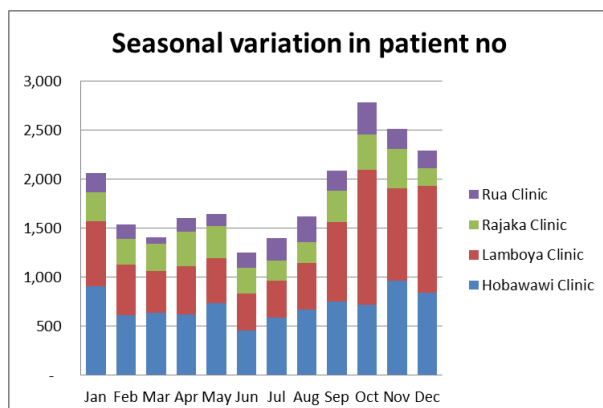
Clinic	Hobawawi	Lamboya	Rajaka	Rua	2017 Total
Total Patients	8,472	8,016	3,474	2,227	22,189
Malaria	955	1,238	54	118	2,365

main categories seen at each of our 4 clinics. Another important health service provided at our clinics is the weekly eye disease screening and provision of glasses by

our Eye Care Nurses, Nefry and Sany.

Seasonal variation in patient numbers

We usually see a rather significant variation in number of cases over the year as several diseases are more common during the rainy season (October through February). Illustrated below is the seasonal variation in total patient numbers at our clinics, with the driving force of variation coming from malaria infections.



Malaria cases treated at our Clinics

Again in 2017 the third highest reason for clinic visits was malaria diagnosis and treatment. We have come a long way over the past decade but malaria does not go away by itself and takes concerted control efforts. Below is the number of malaria cases at our clinics and the reductions we saw over the past year. The total number of clinic malaria cases (2,365) dropped by 23% from 2016. The most significant decrease was at the Hobawawi clinic where we saw a 44% drop from 1,708 to only 955 cases for the year. Rua clinic also saw a drop from 172 cases to 118 cases, however the Lamboya (1,238) and the Rajaka (54) had more or less the same number of malaria cases year to year. Lamboya sees a lot of cases coming in from the Gaura and that area has a lot of malaria being outside our core intervention and mosquito net distribution area. We have educated

the government laboratory staff in Gaura at the Malaria Training Center but their overall capacity is still limited and equipment is not complete.

We are very happy to see this general drop in confirmed malaria cases however the numbers

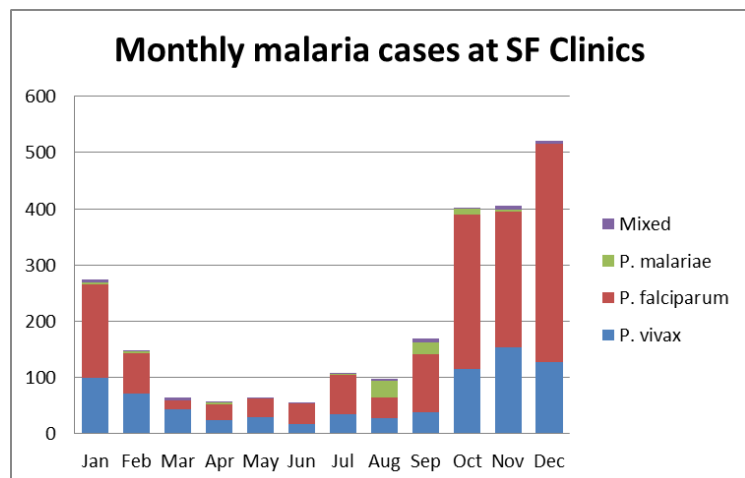
Malaria cases	Hobawawi	Lamboya	Rajaka	Rua	Total
2017	955	1,238	54	118	2,365
2016	1,708	1,172	44	172	3,066
Reduction	44.1%	-5.6%	-22.7%	31.4%	22.9%

illustrate the massive need for proper diagnosis and treatment, further reduction of cases in our core areas and even more so the need for further expansion of our

control efforts outside of our core areas into neighboring areas. This should include expansion of net distribution where the government does not reach, improvement of local testing facilities and clinical outreach to the neighboring areas in Patiala Dete, Gaura areas and beyond.

Seasonality in malaria cases

Malaria transmission is strongly tied to the annual variation seen in rainfall and mosquito density in Sumba. Below is illustrated the total number of the 3 main types of malaria infections seen over the full year. As expected the patient numbers closely follow the rainy season and sees a strong resurgence in October when the first rains appear. Late rainy season has far fewer cases as the breeding sites become full of predators as the rainy season continues and numbers drop of in February even when rains continue into April. It is important that we have completed mosquito net coverage before the end of



September ahead of the 2018/2019 rainy season, parasites cleared must be from the core populations and the stock of drugs ready before transmission increase in October 2018. We will further increase the use of single dose Primaquine in combination with the standard malaria treatment. Primaquine kills the malaria gametes that can infect the mosquitoes and thereby further reduce the risk of transmission in our core areas.

General malaria control program



The Sumba Foundation's overall Malaria control program has now operated since 2004 and we have come a long way since we opened the first SF clinic with 4 junior nurses at Hobawawi. The core elements of our Malaria Control Program are: Free malaria diagnosis and treatment at our clinics, mass blood screening of the population in the villages, provision of free mosquito nets to further reduce reinfection risk and expert level malaria education of all health staff working on malaria in Sumba (at the MTC). With these components, we have reduced malaria by 93% in our core area and facilitated the overall reduction of malaria on Sumba by 70% (detailed in the 2016 report).

In 2017, we aimed to further reduce the number of malaria cases at our clinics and in the villages, distribute nets and mopped up malaria cases in our core area around the Hobawawi peninsula and inland at desa Watukarere, Palamoko and Ringurara.

Mass malaria screenings in the villages



As described above we saw a 23% reduction in overall malaria cases at our clinics with a 44% reduction seen in the center of our core area around Hobawawi. To further reduce the number of malaria cases in our core area we went back to screen the entire populations living in the central desas within our area. This is done by first doing a population survey in all the villages, including names and ages of all people living in each household. This is then followed up with mass blood screening and treatment of all people living in the villages and assessing additional mosquito net needs. In 2017, we tested a total of 5,668 villagers living in 102 villages within our main area. Please see details below.

Desa	Villages	No tested	P. falciparum	P. vivax	P. malariae	Mixed inf	Total Inf
Hobawawi	25	709	8	16	0	0	
Palamoko	12	695	15	22	1	0	
Watukarere	27	2,107	36	39	1	8	
Ringu Rara	38	2,157	18	8	0	0	
TOTAL	102	5,668	77	85	2	8	172
Percentage			1.4%	1.5%	0.0%	0.1%	3.0%

Testing a total of 5,668 people only yielded 172 malaria cases or just 3% of the people screened. That is an excellent result and illustrates how the malaria cases are being weeded out by our concerted efforts. Since it is a lot of work to find these few cases among so many people it highlights the challenge we face in eradicating malaria. We will still have to go back and screen these large populations to weed out sources of infection and the relative effort required increases with the drop in relative infection rates. Another interesting observation is that we have seen a significant change in what malaria species we find inside our intervention area. See the table below comparing this year's species composition with that from the 2004 surveys. Back in 2004 malaria cases were dominated by P. falciparum (60%) and with some P. vivax (25%), P. malariae (15%) and P. ovale (2%). Now we see no P. ovale, P. malariae is reduced by 92% and P. vivax has more than doubled in relative numbers to 52% and is not the most common malaria species in the villages.

This change is caused by effectively killing off the P. ovale, P. malariae and P. falciparum but P. vivax can hide in the liver for decades and re-emerge without mosquito bites, hence why it is so much harder to eradicate. In our next stage of malaria intervention, we will aim for total malaria elimination why we will have to introduce removal of the liver stage of P. vivax with the drug Primaquine. To do this safely we will need to test all P. vivax carriers for G6PD deficiency (PQ is only safe if proficient) and that requires access to constant refrigeration at our clinics and a more sophisticated laboratory setup. All very possible and something we seriously need to consider to get the job done.

	Malaria species change			
Malaria type	No	2017	2004	Reduction
P.falciparum	77	47%	60%	22%
P.vivax	85	52%	25%	-107%
P.malariae	2	1%	15%	92%
P. ovale	0	0%	2%	100%

The primary source of infections in our area will soon be inflow of malaria cases from people visiting or coming from areas outside our core intervention area and is also why the island wide increase in proper malaria diagnosis and treatment provided by the Malaria Training Center is essential for eradication success. To illustrate the size of the problem outside our core area please see the table below with results from a malaria survey we did in the Kodi area 50 km up the coast.

Desa	Villages	No tested	P. falciparum	P. vivax	P. malariae	Mixed inf	Total Inf
Kodi	1	96	11	6	0	0	17
Percentage			11.5%	6.3%	0.0%	0.0%	17.7%

Here we surveyed two small villages with a total population of 96 people. Of these 17 had malaria on the day or 18 % of the population. These data show the similar high malaria prevalence we saw in our core intervention area a decade ago and illustrates the magnitude of the island wide need for proper Malaria control and education.

Mosquito Net Distribution

The Global Fund assisted the Indonesian government with a very large number of mosquito nets for Sumba back in 2014 and promised to assist again in 2017, however the latest mass distribution has been delayed and we purchased 3,000 new nets (Brand: Permanet3) in December 2017 to cover the

SF Mosquito net distributioun 2017		
Hobawawi		473
Ringurara		432
Nihi area		100
Total nets		1,005

population in our coverage areas in general and any other shortcomings in the government programs. Through 2017, we distributed a total of 1,005 nets in the Hobawawi, Ringurara and Nihiwatu area. These distributions were done in connection with the mass blood screenings to

ensure the risk of re-infection was as limited as possible and that the new nets were well received in the villages.

Our plan in 2018 is to distribute all 3,000 newly acquired mosquito nets (and maybe more) depending on government distribution plans and how many nets are needed to fill the gaps so the entire population is protected before the 2018/19 rainy season.

Sumba Eye Program

This year was another great year for the Sumba Eye Program and the Eye Care Nurses who are dedicated to alleviating the people of Sumba from their eye diseases and refraction needs. Throughout 2017 we screened 2,561 patients, dispensed 2,262 pairs of eye glasses and performed 126 eye operations (see details below). The Eye program has been hugely successful and 2018 will be the 10th year we conduct and expand our collaboration with Dr. Mark Ellis, Peter Steward, Peter Lewis and the rest of the team from The Royal AustralAsian College of Surgeons in Australia and UNHAS in Makassar. The Australian and Indonesian medical teams now come twice a year for a week each trip, once in May to survey and screen patients and again in August to perform further mass eye screenings and eye operations. The Sumba Foundation Eye Care Nurses, Sany and Nefry, provide patient follow up after the surgery sessions and perform eye screenings and prescription glasses distribution at our clinics and in our core coverage area throughout the year.

Sumba Eye Program	Screened	Glasses	Cataract	Pterigium
Hobawawi Clinic	201	171	18	11
Lamboya Clinic	119	105	18	7
Rajaka Clinic	133	114	18	5
Rua Clinic	69	60	5	4
Villages	119	108	24	7
ECN total	641	558	83	34
May screening	817	693	64	10
August Scr/ops	1,103	1,011	96	30
TOTAL SCR/Ops	2,561	2,262	96	30

May screening

This year's primary screening session took place in May and included four optometrists and one ophthalmologist (Dr. Ellis) along with SF Eye Care Nurses Sany and Nefry. Education of the eye care nurses and patient screenings took place at 2 SF clinics and at several villages in the Elopada and in Central Sumba. We screened a total of 817 patients for eye diseases. Of these, 74 were referred for Cataract or Pterigium surgery in August and 693 eye glasses were dispensed. This was a great follow up from a two-week training program that Nefry and Sany did in March of 2017 in Sydney, Australia where they spent their time attached to the Sumba Eye Program Doctors and learned more in-depth knowledge about eye care and eye disease. More about their studies in the following sections.



August screening and Surgery

This year's August eye operations were conducted at the government hospital in Anakalang, Central Sumba as we have now been operating 8 years in West Sumba district. The main reason was that the patient operation needs were much larger in the area there and this outreach illustrates how the Sumba Foundation is here to help all of Sumba. The team consisted of 3 Australian surgeons, 5 Indonesian surgeons, and 4 nurses as well and 4 optometrist and various government health staff, translators and drivers assisting. The screening and surgery sessions were very successful and a total of 1,103 patients were screened, 1,011 received eye glasses and 126 patients were operated over a 5-day period.



Eye care nurse education and clinical work: In March 2017, we sent Sany and Nefry to Australia for a 10 days eye education program. This was a huge success and the girls obviously learned a lot and enjoyed the trip. Over the year the nurses conduct eye screenings and provide eye glasses at our 4 clinics and conduct village level surveys in our area, and in 2017 screened 641 patients, provided 558 eye glasses and identified 117 patients for eye operations.



SF Nursing Scholarship Program

One of our core strategies to improve the lives of people in Sumba is the many ways we seek to improve the general education level. Our scholarship program is a prime example of how we seek to give opportunity to bright young Sumbanese from impoverished and poor families. To enroll in our scholarship program, the students must have graduated from high school getting their degree and passed the entry exam for a health education in addition to coming from a proven poor family. Based on individual and institutional donations, we invite underprivileged students from impoverished families for an interview and we select the brightest and those most in need. We also assist further education of our core health program staff to improve skill levels and retain our best



staff. In 2017, two institutional donations made it possible for us to significantly expand our scholarship program. In the beginning of the year we had just three students enrolled and by the end of the year we had enrolled a total of 16 students at various health education institutions in Java, Sumba, Bali and West Timor.

Four of the students were Foundation staff who needed a one year Nursing extension to receive their bachelor degrees. Agustina Mbilyora finished her 3-year nursing degree in Bali back in March 2017 and is now back at the MTC training students. Hapu, Marta and Anita will all wrap up their degrees in the first half of 2018 and return to the SF Health Project Team further increasing the quality of our health care services. In 2017, we enrolled 11 new nursing students for the East and West Sumba Akber nursing schools and one midwife based in Kupang, West Timor. Not only will these nurses get an education for life, each of them will provide health care for thousands of patients in Sumba throughout their careers.

Sumba Foundation Scholarship Program 2017/2018							
No	Student name	Degree	University/School	Duration	Enrolled	Exp finish	Sponsor
1	Agustina Mbilyora	Bachelor + Nurse	Udayana, Bali	3 years	Mar-14	Mar-17	SF donor
2	Hapu Ammah	Bachelor + Nurse	Udayana, Bali	3 years	May-15	May-18	SF donor
3	Marta Horo	Nurse extension	Stikes, Semarang	1 year	Jun-17	Jun-18	SF donor
4	Anita Diana Ole	Nurse extension	Stikes, Surakarta	1 year	Mar-17	Mar-18	SF donor
5	Marianna Pandi	Akber Nurse	Akber, Waikabubak	3 years	Aug-16	Aug-19	SF donor
6	Rambu Anamotor	Akber Nurse	Akber, Waingapu	3 years	Aug-17	Aug-20	Genesis
7	Erdinan Bayo	Akber Nurse	Akber, Waingapu	3 years	Aug-17	Aug-20	Genesis
8	Ricard Ruben	Akber Nurse	Akber, Waingapu	3 years	Aug-17	Aug-20	Genesis
9	Mariana Lede	Midwife	Poltekkes, Kupang	3 years	Aug-17	Aug-20	Adecco
10	Rani Betsi Lado	Akber Nurse	Akber, Waikabubak	3 years	Aug-17	Aug-20	Adecco
11	Anggreini Bili	Akber Nurse	Akber, Waikabubak	3 years	Aug-17	Aug-20	Adecco
12	Novia B.D Wawu	Akber Nurse	Akber, Waikabubak	3 years	Aug-17	Aug-20	Adecco
13	Stefanus C.W. wunga	Akber Nurse	Akber, Waikabubak	3 years	Aug-17	Aug-20	Adecco
14	Ardianti Margareta Sam	Akber Nurse	Akber, Waikabubak	3 years	Aug-17	Aug-20	Adecco
15	Rini Debora Lado	Akber Nurse	Akber, Waikabubak	3 years	Aug-17	Aug-20	Adecco
16	Ani Maryani	Akber Nurse	Akber, Waikabubak	4 years	Aug-17	Aug-20	Adecco
17	Dewi Rambu B. Uka	Akber Nurse	Akber, Waikabubak	3 years	Aug-17	Aug-20	Adecco

Mama2Mama

Our Mama 2 mama program focuses on preventive care in pregnancy for the rural population of West Sumba. The local government has local midwives employed in our area but their tools are limited and why our program aims to add lifesaving services at clinic and village levels. We have two portable ultrasound units and we use them to identify potential issues in the pregnancies and of cause to reassure the expecting mothers when everything looks fine. In June of 2017, we sent 3 staff to receive further mid-wife training at Bumi Sehat in Ubud, Bali, the regions premiere mid-wife educational center. There they took a week-long course to retrain and further their education in USG scanning, prenatal care and delivery.

2017	Hobawawi	Lamboya	Rua	Rajaka	Nihiwatu	Villages	Total
Ultrasound screenings	103	73	7	20	6	17	226

By the end of 2017 we screened a total of 226 expecting mothers and for a majority of the mothers there were no issues, however in one of our general screenings at the Lamboya clinic, nurse Ati identified a woman from a remote village in Gaura with Placenta Previa. This is a potentially life-threatening condition for both mother and child where the placenta blocks the cervix, severely complicating normal delivery. With this information, we referred the woman for caesarian delivery at the district hospital in Waikabubak. This saved the woman's life but sadly the baby had other complications and her life could not be saved. This is the first case where we, with confidence, can say the equipment saved a person's life. In 2018 the program will expand to work more closely with the local midwives and in remote villages.



Malaria Training Center



In 2017, we had a total of 119 students in 8 groups of students graduate from the MTC courses, 6 groups certified from the WHO Malaria Program and one group from our joint government Filariasis program (another mosquito borne disease). We also conducted a malaria training course in East Sumba at the government Nursing school there. 77 nurses and teachers participated and 40 passed the final exam in Malaria introduction. The total number of WHO Malaria graduates was 60 students. Of these 15 passed as WHO Experts, 45 as WHO Reference microscopists, plus 16 graduated from the

Lymphatic Filariasis microscopy program. Below listed are the groups of students from this year's courses.

MTC Graduates 2017						
	District	TOPIC	Expert	Reference	In Training	Total
February	West Sumba	Malaria	1	5	0	6
March	Central Sumba	Malaria	5	4	1	10
May	East Sumba	Malaria	3	8	1	12
June	South West Sumba	Malaria	1	8	1	10
August	East Sumba	Malaria	1	9	0	10
Nov	East Sumba	Malaria	4	11	0	15
2017	Total	Malaria	15	45	3	63
May	Central Sumba	Filariasis	0	16	0	16
Dec	East Sumba	Intro Mal	0	40	0	40
2017	Total Graduates		15	101	3	119

Training in Lymphatic Filariasis (elephantitis) Diagnosis and Control

The MTC conducted a join training session with the province Health Laboratory and the Central Sumba Health office. This training was focused on the debilitating disease Lymphatic Filariasis or Elephantitis that create grotesque limbs, if not treated. This disease is spread by mosquitoes in some areas in Sumba and up to 10% of the populations are infected in some hot spots. Fortunately, the disease is very hard to transmit and an effective island wide intervention program has been in place for the past year. Still, we need to have the diagnostic skills present at all the health centers and is why this training in night time blood sampling and parasite identification is essential. The diagnosis is made by microscopy of blood taken from patients after 9 pm when the microfilaria appears in the blood stream of infected individuals.



Filariasis students from Central Sumba at the MTC

National Accreditation Progress in 2017

In December 2016, we signed a Memorandum of Understanding with the Provincial Health Office that includes full government recognition of the WHO level malaria training and certificate and recognition of the 4-week training program allowing graduates to get full education credits and rank/salary increase within the Government system. During 2017 we arranged a number of meetings with the various Provincial Health Offices in Kupang to accommodate the National Malaria



Curriculum with our 4 weeks program. Both our and the National programs are based on the WHO guidelines but the national course is only 2 weeks and much more focused on theory/admin and has no fieldwork or treatment components to them. We have now included all components from the national guidelines (easy) and the Province Health Director is now co-signing our malaria graduation certificates for full recognition. In 2018, we will push to get the full national accreditation from the Indonesian Ministry of Health and plan to have 2-4 of our staff participate in the national and WHO Trainer of Trainer course later in 2018.

The aim is to become the Center of Excellence for malaria control and quality assurance for Eastern Indonesia and educate 500 to 800 more malaria staff over the coming 3 years. These graduates will go back to their clinics and hospitals in Sumba and NTT and will diagnose in excess of 200,000+ malaria patients per year hammering the overall malaria occurrence. This education program has the widest impact on the overall health on Sumba of any of our programs. The SF Microscopy Training Center is unique in Indonesia and we have a capacity and quality to educate like no other and this needs to benefit as many as possible.

Workshop on the developments of the Tuberculosis training program for the MTC



Sumba, and our coverage area, has a high occurrence of Tuberculosis in all age groups and positive cases are on the rise because of the advance of HIV and multi drug resistant TB on the island. Due to the success of the Malaria Training Program the Province Health Director asked if we could develop a comparable WHO level training program for Tuberculosis Control and this is now included in our MOU with the Province. In 2017, we have worked with the Province Health Office and a team of Australian

medical Doctors and universities to develop a WHO level Tuberculosis training program comparable to our Malaria Program. We developed the program components such as: PowerPoint presentations, TB microscope slides and other training tools needed for the training program. A lot of man hours have gone into developing manuals, slides and seven different presentations on the epidemiology, disease patterns, diagnosis, prevention and treatment of Tuberculosis. The preparations culminated in a workshop in June 2017 where all of the Australian team members came to Sumba and we field tested the program, presentations and made plans for further development of this much-needed training program. We visited government clinics and saw how urgently the program is needed and gained essential knowledge on how to fine tune the various program components and planning of field components. Still we have a lot of work ahead and are currently developing the high-quality TB microscope slides jointly with the Karitas hospital, province Health office and the Freeport Mine Health Program in West Papua.



General Foundation News

This year our online presence showed excellent growth particularly with our Instagram accounting which nearly doubled in followers from 1,276 followers in 2016 to 2,507. We continued to see growth on our Facebook page as well but in a much more limited capacity, growing from 2,085 to 2,291 followers. This trend is not surprising to see as more people are shifting away from Facebook for expanding brand awareness and looking more towards the simplicity of photo and video with limited text.

On average, we did 13 tours consisting of 40 over people per month, taking primarily guests from Nihi Sumba Island out to see our project works specifically to see the Health Clinic work and School Lunch Program, pointing out water projects and stations set up by the foundation along they way, while sharing more information about the other projects and plans to continue to expand our works in the area.

Future Projects 2018

Our main focus as we look forward to 2018 is to establish further our focus on education. On November 2nd 2017, we held our first ever fundraiser in Asia that took place in Hong Kong, organized by guests of Nihi Sumba Island, Julie Koo and Frank Lonergan. The event was a major success for a first-time event in a location where awareness about Sumba and The Sumba Foundation is very limited. Through their connections and networking, we were able to raise around \$150,000 over the course of an hour silent auction and fund-a-need live auction. The funding raised from the event that evening was specifically geared towards the building of a Learning Development Center in the space adjacent to our Health Clinic at Hobawawi, with an initial focus on teaching daily English language skills and Computer Skills all in the aim of giving the youth of Sumba the skills they will need as the island continues to develop and more jobs that require these skills become available, giving them a competitive edge over businesses hiring staff from outside the island.



To kick start this project, two weeks after returning from Hong Kong, we began to sponsor a local teacher by the name of Rosewita Asty Kula who was already teaching children during her free time in the afternoon when school let out basic English lessons. Through her, we are now sponsoring just shy of 1,000 children from 4 years old to 18 years old with all different levels of English language lessons and have hired Rose Asty as part time while she finishes her government teaching contract to be our Head and Trainer of Teachers as we move towards the opening of our main Learning Center estimated to open in mid-July 2018. In the interim, to better assisting the children Rose Asty is already teaching at Kerewe Beach (seen opposite from Nihiwatu Beach) we will build the first satellite learning hut which will work in tandem with the main Learning Center and expand our reach for education development even further.



In 2018, we will also be focusing on re-engaging local farmers, both new and previous, to expand our local farming projects and bring them back into a center point of economic opportunity for local farmers in the area. The farming projects will be directly related to the Nutrition Project this time through and the farmers will be educated in year-round farming techniques in growing the vegetables we require to supplement the food being cooked by the School Lunch Team, further decreasing the reliance on outside sources and vendors who primarily get their produce from other islands such as Bima.

We have seen great success in 2017 and while our expectations for 2018 are even higher, we are confident that with the continued support from our donors, contributors, supporters and least of all our growing Sumba Foundation Team, that we will be able to take the Sumba Foundation Projects further and provide a better quality of life and education for the future of Sumba than ever before.

On behalf of the Sumbanese, Sumba Foundation Staff, Board of Directors, and all those involved behind the scenes, thank you all for your continued support!

The Sumba Foundation

www.sumbafoundation.org



Our Mission

The Sumba Foundation is deeply committed to lessening the consequences of poverty on the island of Sumba. Our aim is to provide humanitarian aid by fostering village-based projects that impact health (including access and malaria control), education, water, and income-generation, while preserving and respecting the fragile culture and traditions of the Sumbanese people.

A large part of the financial support for the foundation comes from guests of the Nihi Sumba Island. With their involvement, we can create small miracles every day.