Against Malaria Foundation

LLIN Distribution Programme – Detailed Information

Summary

# of LLINS	Country	Location	When	By whom
4,000	**Sierra Leone**	**Malen Chiefdom, Pujehun district**	**June-July 2009**	**Global Minimum**

Further Information

1. Please describe the specific locations & villages to receive nets and the number to each? Please provide longitude/latitude information. (Important note: If the distribution is approved, approval will be for the nets to be distribution to these specific locations. Location changes will only be considered, and may be refused, if due to exceptional/unforeseen circumstances.)

The nets will be distributed in the Malen Chiefdom in the Pujehun region. The chiefdom is divided into ten sections containing 45 villages.

There are also smaller clusters of houses that do not constitute villages. The number of villages and people in each section varies.

Section	Hub Village	Walk to Hub(km)	Est. Pop	Est. Nets	% tot chfdom pop
Kahaimoh	Nyandehun	4.0	3,846	1,930	16.3
Kakpanda	Taninahun	3.8	3,331	1,670	14.1
Upper Pemba	Manowulo	2.9	2,392	1,200	10.1
Lower Pemba	Gboyama	4.6	1,843	920	7.8
Taukunor	Banaleh	3.0	2,249	1,160	9.5
Korwa	Sahun (Sahn)	4.1	1,886	940	8.0
Kemoh	Saahun	3.1	2,870	1,435	12.2
Bahoin	Sinjo	2.4	3,528	1,800	15.0
Seijeila	Gangama	3.6	1,637	840	6.9

See the maps attached for section locations.
1. Pujehun Region showing the division of the region into chiefdoms.
2. Malen chiefdom with details of village locations, and population sizes in the different sections.

Pujehun City has the following coordinates:
Latitude (DMS):8° 30' 0 N Longitude (DMS):11° 13' 0 W
(Source: traveljournals.com)

The Malen chiefdom is a 1 ½ hour drive west by car on a dirt road.

We will focus on covering entire villages at a time. The number of villages to be covered will be established based on the census data and in consultation with the paramount chief and the District Health Management Team.

We plan to cover the following sections with 4,000 nets.

	Approx Population	Approx #Nets*	
Korwa Section	400	200	(for pp to be covered)
Bahoin Section	3,528	1,800	
Taukonor Section	2,249	1,160	
Seijela	1,637	840	
Total	**7,814**	**4,000**	

* On basis of approx 1 net per 2 people and achieving blanket coverage of all sleeping spaces.

2. Is this an urban or rural area and how many people live in this specific area?

This is a rural area in dense tropical rainforest. It used to have a big palm oil production, but now has mainly rice farming. The population of the entire chiefdom is 23,520. The smallest of the ten sections has 1,637 inhabitants and the largest has 3,846. These numbers come from a survey carried out for GMin by a representative of the National Electoral Commission for Sierra Leone in the Fall of 2008.

3. Is this a high risk malaria area? If yes, why do you designate it as high?

Yes. The entire country is endemic, but this area also has many rivers, swamps and irrigated fields for rice farming. Thus, this is an optimal breeding location for mosquitoes. In addition, local people consider malaria a very significant problem. The UNICEF-developed Multi-Indicator Cluster Survey for the Pujehun region puts the malaria prevalence rate at 35-45%.

Further:

Malaria is a big problem in the area – indeed malaria prevention is a need identified by our local partners. To add further evidence we will quote the District Health Management Team (DHMT) on the malaria prevalence in our target community. They work there year-round and witness every day the debilitating effect of malaria. The quoted report was prepared for the last distribution Global Minimum undertook in the Sahn Malen village in the Malen chiefdom:

“Malaria is the leading cause of morbidity and mortality among the population in Pujehun district, with an estimated prevalence rate of 35%-45% (MICS 3). Pujehun constitutes one of the 13 Medical Districts in Sierra Leone as well as one of the four districts in the southern province. Pujehun district covers a total surface area of 4,105 square kilometers and harbours a population of 234,234 (Statistics Sierra Leone). This population, which resides in 12 chiefdoms, is mostly comprised of rural inhabitants. Malaria is endemic in Pujehun

district and normally assumes the highest peak of prevalence in the rainy season."

"Sahn Malen is ideal for the proposed study [of the effectiveness of ITNs] due to the following reasons: Firstly the topography of Sahn Malen is conducive for active transmission of malaria (swamps, depressed areas, oil palm plantation, forest and grassland vegetation). Secondly, Sahn Malen has a Community Health Centre (CHC) that has been stocked with adequate amounts of drugs including antimalarials. The centre which is manned by staff of the Ministry of Heath and Sanitation (MOHS) provides services through the general clinic, Antenatal Clinic (ANC) and Underfives Clinic (UFC). There is a functional Community Development Committee (CDC) and Traditional Birth Attendants (TBA) are actively working with clinic staff. Thirdly, community participation in the delivery of health care services is remarkable. Lastly, Sahn Malen is a very good example of a typical community undergoing post war reconstruction and rehabilitation. Health service delivery is headed by the District Health Management Team (DHMT) in Pujehun. Partners working with the DHMT are mainly UNICEF and the Pujehun District council (PDC). There are no NGOs operating in the health sector at the moment."

This time Global Minimum aims to cover the villages neighboring Sahn Malen, which are situated in exactly the same topographical conditions and thus suffer the same problems of malaria. If anything, this topography will cause a higher malaria prevalence rate in the Malan chiefdom than in the rest of the Pujehun region.

We have ample scientific evidence that malaria is a problem in the area. This evidence is collected and presented by the head government health team working in the region, the DHMT.

Also:

Pujehun constitutes one of the 13 Medical Districts in Sierra Leone as well as one of the four districts in the southern province. Pujehun district covers a total surface area of 4,105 square kilometers with a population of 234,234 (Statistics Sierra Leone). This population, which resides in 12 chiefdoms, mostly comprises of rural inhabitants.

Malaria is the leading cause of morbidity and mortality among the population in Pujehun district, with an estimated prevalence rate of 35%-45% (MICS 3).

The chiefdom in question is the Malen Chiefdom, which if anything has a higher prevalence rate than the rest of the Pujehun district.

4. How many *reported* cases of malaria and malaria deaths were there in this area in 2005? If you do not have statistics please make a qualitative comment.

We do not possess statistics for this. However, if absolutely necessary, the medical journals could be procured from the health workers in the region. It should be said however that

most common fevers are attributed to malaria so getting any precise statistics would be difficult.

Malaria is perceived to be a very big problem by the people living there. They have grown accustomed to living with the disease and the concomitant long periods of illness and infant deaths.

Re collating malaria figures from as many clinics' medical records as possible so this information could act as baseline data ie drawing together information showing the number of suspected/known malaria cases per month in the few months before the distribution of nets and then gathering the same monthly information post distribution:

We will establish this baseline in cooperation with DHMT once we're on he ground. However, at present the process taking digital copies of all the medical journals in the chiefdom to send to the US for data processing would be too cumbersome a task to be accomplished within the next couple of weeks.

5. Is this distribution of nets 'blanket coverage' of an area/village or to a select/vulnerable group? If the latter, please describe this group.

100% coverage. We consider a mosquito net distribution a community project and do not wish to exclude any groups. By covering everyone we also aim to harness the mass effect of a collective usage rate above 60 %.

6. What is the existing level of ITN use in this area? Are there existing bednet distribution programmes in this area?

We surveyed the biggest village in 2007 and we found that 3% of the households had at least one mosquito net. Many of these were torn, however, and none of them were treated with insecticide. We anticipate the level of ITN use in other villages would be the same or lower. Our team completed one distribution of 1,280 nets in 2007 in the same village.

Determining net usage:

The DHMT does random sampling by interviewing 400 individuals (out of a population of 1500) to create a representative sample. In case of under-fives, their mothers or caretakers were used as proxy. They do these interviews every six months, and they have recorded a sustained 93 % 12 months after the first distribution by Global Minimum.

As noted earlier, the community participation in the delivery of health care services is remarkable in this chiefdom and the DHMT is able to combine this project with their other activities in the chiefdom.

Other net distributions in the area:

The DHMT has no record of other NGOs working in the area. The Red Cross has previously carried out a nation-wide distribution, but the nets have not reached the population of Malen. Indeed, in our comprehensive survey of the village

less than 3 % of the population had a net, much fewer had one without tears that was treated with insecticide.

By looking at Roll Back Malaria website it's clear that the Pujehun district is not covered by the Global Fund's work:

http://www.rollbackmalaria.org/countryaction/sierraLeone.html#expand_node

According to this link, the only other ITN distribution partner is UNICEF whose health experts are advising us for our distributions.

7. Why was the area/villages chosen for bednet distribution and who made this decision? Please provide the name, position and organisation of the person/s making the decision.

The family of the executive director of Global Minimum, David Sengeh, hails from this region of Sierra Leone. He visited the chiefdom during the summer of 2006 and personally witnessed the brutal consequences of living in a malaria endemic area. After consulting with the paramount chief and the District Health Management Team (DHMT), he started Global Minimum with 3 of his friends to address this problem.

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This community is chosen for scientific reasons (high prevalence of malaria) and due to the fact that we are able to work closely with the target community.

As seen in our answer to question 3, malaria is from an official source established as a big problem in the region in general and in the chiefdom in particular. The fact that we have a very good working relationship with the paramount chief, the District Health Management Team as well as great knowledge of local customs and culture only improves the effectiveness of our distribution.

This expert knowledge due to familial relations should not detract from the effectiveness of our distribution, but rather add to it. This distribution is a case of Sierra Leoneans addressing their own problems, and they have have chosen to focus on the problem that a lot of scientific evidence suggests is the biggest in their country. Global Minimum has many Sierra Leonean members and the other international members are more than happy to help them acquire the means (ITNS) to face one of Sierra Leone's many challenges.

8. Have you consulted with the National Malaria Programme in your country about this distribution and what was their response? Please provide the name, position and contact details of the person/s with whom you have liaised.

For our last project, the national malaria program was not very responsive, but they did not disapprove of the distribution. We have contacted them again through our contacts in Sierra Leone and on Wednesday March 18th 2009 Samuel Baker, the National Malaria Control Programme Manager, confirmed via cell-phone that we can carry out our distribution as long as we share data and results with them. We assumed that our contacts in Sierra Leone had sought this approval previously, but this time we have it fully confirmed.

To: Mathias Esmann <esmann@princeton.edu>
From:Samuel Baker <sambaker79@yahoo.com>
Date: Tue, Mar 24, 2009 at 7:58 AM
Subject: Global Minimum's Distribution of LLINs in Pujehun

Dear Mathias,
Thank you for your intention to partner with the National Malaria Control Programme in the business of Prevention and Control of Malaria in Sierra Leone. Mr Paul Sengeh informed me about this venture and I want to assure you that it is most welcomed; especially the fact that it appears as if you intend to continue following up you distribution to ensure the people use the nets that are distributed to them. Secondly, the house to house campaign is a welcomed strategy which the NMCP also intends using in a forth comming campaign planned for 2010.
We would be greatful if you could supply us with distribution informations as to area covered including different target groups covered or rather number, and if possible, addresses of houses covered. Wishing you well in you endeavour and expecting to hearing from you as you go ahead with your plan.

Kindest Regards
Dr Sam Baker
Programme manager
National Malaria Control Programme
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Freetown

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Email: sambaker79 AT yahoo.com or sambaker79 AT gmail.com

9. Please describe any pre-distribution activity, in particular how the size of the target group and number of nets required will be ascertained?

As we did during our distribution in 2007, we will do a census and visit each home in a village. We will mark each house with chalk i.e. “C3” – section C of the village house no. 3. This will allow us to carry out an efficient distribution and give us an opportunity to introduce ourselves to the people of the project village. We will ask how many ‘sleeping spaces’ they have and set aside that amount of mosquito nets for the subsequent distribution. This way we don’t give two nets to a couple that sleeps in one bed.

We will also call a town meeting and introduce ourselves alongside the paramount chief and the DHMT with whom we

worked in 2007. We will also continue our tradition of having a soccer tournament that will publicize the distribution and make us known to younger segments of the population.

10. Please describe how the bednets will be distributed, by whom, whether distribution will be a focussed effort or part of a combined programme and if there will be an information/education component to the distribution? Please indicate over what time period (typically, the number of days or weeks) the distribution will occur.

We will distribute nets house-to-house. As in 2007, we will split each village into three sections and create three teams composed of members of GMin, local translators and local volunteers. We will visit each house in the village and explain how the nets are used properly, how they are best hung up, what their effect is, the importance of sleeping under an ITN every night, as well as the transmission cycle of the malaria parasite.

We will help the people hang the nets if necessary (and provide nails and hooks where needed).

Malaria education will thus take place as we visit each house, but the district health medical team will also do ongoing sensitization after the project ends – as they are currently doing for the 1,280 net distribution.

We covered 1,500 people in one week in 2007, so we estimate that the distribution of 4,000 nets will take 4 weeks. We will do pre-distribution work in the first three weeks of June and then finish the distribution in the third week of July.

Suggestion from AMF:

“When you distribute nets to a larger gathering of people which I imagine will be part of what you do, I suggest you think about performing an educational ‘skit’ (play) with local people. The malaria education element is critically important and all our distributions must have them. The education typically involves explaining how malaria is transmitted (by the female Anopheles mosquito typically which bites between 10pm and 2am when seeking a blood-meal from a human), proper use and care of the net, a bednet hanging demonstration and how to identify the signs of someone suffering from malaria. This helps people understand why sleeping under a net at night can protect from malaria-carrying mosquitoes.

A simple play or ‘skit’, acted out, is often part of getting the message across. Several villagers lie down, not under a net, and two or three others dressed with wings, buzz around them and pretend to bite them. The two wake up and feel ill and moan and groan. There is much amusement amongst the villagers who watch this, seeing their fellow villagers acting. Then the two villagers pretend to be asleep under a net and the dressed-up mosquitoes come back and try and bite them, touch the net, and the mosquitoes then roll over onto their backs with arms and legs waving in the air to much hilarity by the crowd. This humorous approach to explaining

how nets protect people and kill mosquitoes is highly effective at getting the message across. It is explained that nets are for their use and, with comments from the village chiefs and community leaders about how these nets must be used properly, proper use of the nets is encouraged."

This is an excellent idea. We will incorporate this into our distribution.

11. What post-distribution follow-up is planned to assess the level of usage (hang-up percentage) of the nets? How long after the distribution will this assessment take place? Will you provide us with the findings? What will you be able to do subsequently to increase net hang-up if relevant?

In 2007, we arranged for the DHMT to do a random sample of net usage in the village we covered. They recorded ownership rates (97% after 12 months), usage rates (93% after 12 months), and reasons for not using/not having nets. They also had a small stock to replace broken nets.

As with the previous distribution, the DHMT will again do random sampling of ownership and usage rates as well as carry out sensitization. This will occur every two weeks for the first three months after the distribution and then every two months for at least three years. Sensitization includes educating people in the importance and use of the nets, installing nets in houses and making sure that nets are being used.

The DHMT will send us a report with the results of the random sampling every six months (after the dry and rainy seasons). In three years they will thus produce a total of 6 reports. We will promptly forward to you each of the reports that the DHMT sends to us.

The DHMT does ongoing sensitization, which has both given the village a very high usage rate and a very high level of knowledge of why mosquito nets are important.

12. Please give the name and contact information for the (government) head of the district health management team for the/each area. Please ensure you include contact information.

Rev. Dr Thomas Samba. He lives in Pujehun City and works at the district hospital there. Email: ttsamba AT yahoo.com
We are in regular contact with Dr Samba through the reports he sends and he has indicated that he along with his team is very willing to work with us on future distributions. He has very limited email access though (he checks it approximately once a month when he is in Freetown).

13. Please confirm the nets will be distributed free-to-recipients, a requirement for us to fund nets.

Yes, they will. This was our principle in 2007 and it continues to be our principle now.

14. Please confirm you will send us, post-distribution, at least 40 digital photos per sub-location, taken at the distribution/s, to be added to our website as we report on the distribution to donors.*

Yes, we will. In 2007 we took more than a thousand pictures for a single distribution. We will take more this time because the distribution is bigger and because we have a very strong emphasis on raising awareness about malaria in our home countries.

15. Please indicate if you will be able to provide video footage from each sub-location. This is not mandatory but is preferred and aids reporting to donors and encourages further donor giving.*

Yes, we will. In 2007 we shot more than 15 hours of footage, some of which is now on our website www.gmin.org. We will shoot more this time around because of the bigger scale of the distribution.

16. Please confirm you will send a Post-Distribution Summary when the distribution is complete.*

Yes, we will. We will make sure to provide you with all the information you need concerning our distribution in the form of a post-distribution summary.

17. Please provide your name, role and organisation and full contact information.

Mathias Esmann
Co-founder and Internal Director of Global Minimum
Global Minimum is a non-profit registered in New Jersey and in Denmark.

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Princeton University
Princeton, NJ 08544, USA

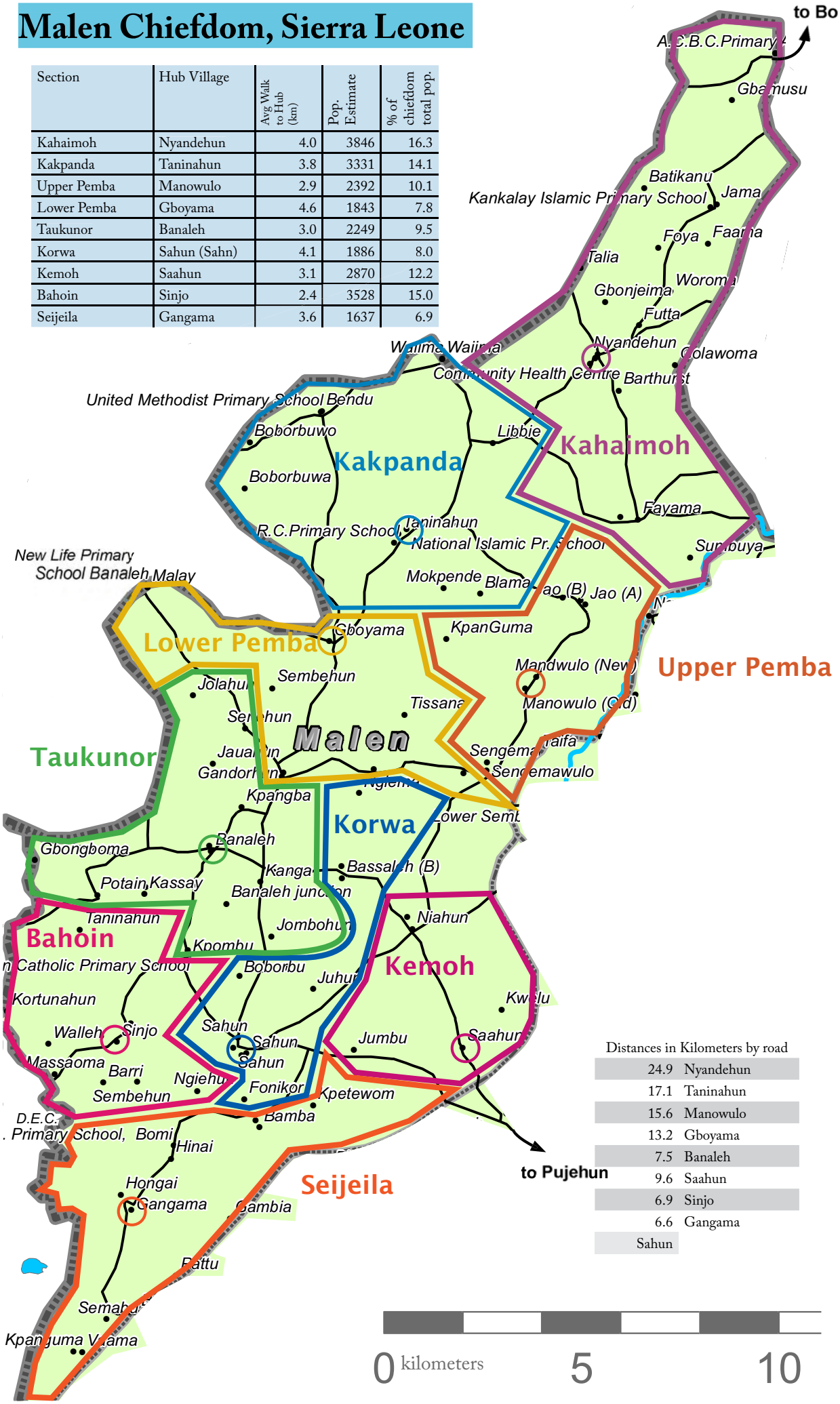
Permanent Address:
Hesselkaer 43
7100 Vejle
Denmark

*Information on providing photos, video and a Post-distribution Summary is included in the attached document.


Boborbuwa
Ahmadiyya
Fayama
R.C.Primary School
Taninahun
National Islamic Pr. School
Nyadehun
Sumbuya
Giema
ife Primary School Banaleh Malay
Mokpende
Blama
Jao (B)
Jao (A)
Nguworbu
Gboyama
KpanGuma
Mandwulo (New)
Juhun
Jolahun
Sembehun
Tissana
Manowulo (Old)
Geoma
Senehun
Malen
Kaipor
Ndolima
Jauahun
Taifa
Tikonko
Sengema
Gandorhun
Sengemawulo
Ngiema
Kebawana
Kpangba
Lower Sembehun
Lower Komende
Banaleh
Niagorehun
Gbongboma
Ngolawoma
Kongo
Kanga
Bassaleh (B)
Potain
Kassay
Mopani
Banaleh junction
Gangama
Kutuyama
Taninahun
Niahun
Jombohun
Mabonjama
Kpombu
Kpetema
Roman Catholic Primary School
Boborbu
Benduma
Juhun
Waanje
Kortunahun
Kwelu
Mandeima
Kangasa
Walleh
Sinjo
Sahun
Tussu
Fulawahun
Sahun
Jumbu
Saahun
Bandalahun
Massaoma
Barri
Baoma
Sahun
Ngiehun
Fonikor
Kpetewom
Sembehun
Gombahun
Yawei
Bamba
D.E.C. Primary School
Bomi
Lembeh
Soso
Bayama
Hinai
Mokengi
Gangama
Blama
Community Primary School
Niagorehun
Sembehun
Hongai
Nyangahun
Gangama
Gambia
Kpanga-Kabonde
Balleh Kpekudu Kamala
Jimmi
Tongie
Pattu
Senehun Makaipo
Fobu
Dambara
Semabu
Baoma
Gbesse
Yikandor New Benga
Manjama
Bo-wulo
Kpangba
Gendema
Tongie
Gobaru Secon
Kpanguma Vaama
Tingai Njajay
Mopani
Gibina
Kebawana
Gobaru B
D.E.C. Primary School
Yikandor Old
Kanale
Sardac
Komende
Benaleh
Lawana
Massam
Massam Wa
Pujehun
Batahoi Bahai
D.E.C. Primary School
Dia
Tikonko New
Kengeh Timbo
Jabama Jabama
Baoma
Buma
Linsa
Manjama
Benduma
Yebana
Sumbuya
Manni
Jombohun
Jombohun
Health Centre
Kortumahun

Malen Chiefdom, Sierra Leone

Section	Hub Village	Avg Walk to Hub (km)	Pop. Estimate	% of chiefdom total pop.
Kahaimoh	Nyandehun	4.0	3846	16.3
Kakpanda	Taninahun	3.8	3331	14.1
Upper Pemba	Manowulo	2.9	2392	10.1
Lower Pemba	Gboyama	4.6	1843	7.8
Taukunor	Banaleh	3.0	2249	9.5
Korwa	Sahun (Sahn)	4.1	1886	8.0
Kemoh	Saahun	3.1	2870	12.2
Bahoin	Sinjo	2.4	3528	15.0
Seijeila	Gangama	3.6	1637	6.9



Distances in Kilometers by road

24.9	Nyandehun
17.1	Taninahun
15.6	Manowulo
13.2	Gboyama
7.5	Banaleh
9.6	Saahun
6.9	Sinjo
6.6	Gangama
Sahun	

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