

# A medical survey among the Twi Dinka in 1930

**Edited from Report No.MI/UNP/6.6.1.  
written by Dr Arthur Pring Farmer in  
Malakal, March 1931.**

*Edited by Ann Burgess, Dr Farmer's  
daughter in 2022. Thanks to Charles  
Bakheit for interpreting some words.*

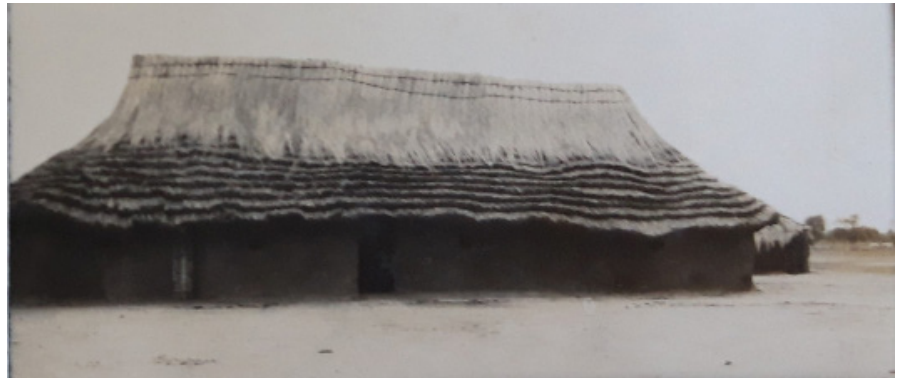


Figure 1. Kongor Dispensary 1930 (Credit: Arthur Farmer)

## A. VACCINATION

Small Pox had been reported from the Kongor area and this place was used as my headquarters.

When I arrived at Kongor, one case of Small Pox remained, a dresser from Kongor dispensary, who had contracted it while looking after a case; it was fairly severe with a copious rash but he recovered completely. Three other cases were seen at Deishwek about seven miles south of Kongor, all occurred in the same family, were mild in type, and all recovered. The source of the infection was not trackable.

An attempt was made to vaccinate the whole of the Twi Dinka area which extends from a short distance north of Kongor to a little south of Jongoli and extends on both sides of the Bor-Kongor road. See Table 1.

Although the chiefs were friendly and the people keen to be vaccinated, it was impossible to get them to come back again so we could see the results; this was particularly disappointing as both wet and dry lymph was used and it had been hoped to compare results.

**Table 1. Numbers vaccinated by sex, age and village**

Village	Men	Women	Boys	Girls	Total
Kongor	647	660	860	916	3083
Aywal	203	212	241	267	923
Adiok	914	842	1198	1059	4013
Deishwek	188	335	426	409	1358
+ Aulian	110	136	169	144	559
x Abek	17	13	22	14	66
Niaping	370	248	519	367	1504
Fyom	361	173	434	282	1250
<b>Total</b>	<b>2810</b>	<b>2617</b>	<b>3869</b>	<b>3458</b>	<b>12756</b>

*+ In this village the chief made no effort to get his people to come. As it was a large village, numbers should have been much bigger.*

*x This village was situated in the centre of a group of villages and most people were vaccinated in other villages and included under their figures.*

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A few figures were obtained of the results of dry lymph but they were not sufficiently large to be of any real value. Of those vaccinated with dry lymph 87 were seen again and 42 were successful and 45 unsuccessful.

No definite figures for the wet variety were obtained but the impression gained was that, when the lymph was reasonably fresh, the results tallied closely with those of the dry variety, but when it was old, the dry variety was superior.

The main advantage of the dry lymph is its ease of carriage, especially on trek, where carrying lymph in a Gullah (a vessel made of clay used to keep water, or lymph, cool). Its disadvantages are that when vaccinating small numbers of people such as 10 or 20 it is wasteful as it is impossible to make up an amount for less than 100 and once made up it does not keep; also preparing the lymph takes some time and requires some skill.

**B. MEDICAL SURVEY**

The method of survey was that after vaccinating a batch of people, they filed past one by one, were counted and any defects noted and any requiring or asking for treatment were put on one side and examined further. In addition, all children up to the age of approximately twelve years were examined for enlargement of the spleen.

**I. General remarks**

The total number of the Twi Dinka has been estimated by the District Commissioner at about 20,000, of these 11,643 were examined.

The general physique of the people is good, especially the young adults. Children appear well cared for. Infants are all breastfed and owing to the native habit of carrying them in covered baskets, do not suffer from eye disease or other fly-borne conditions. The common diet of the Dinka is dura and milk with occasional meat. A marked feature is the very large amount of keloid formation which takes place after any cut and even more so after burns.

**II. Malaria**

Very few cases of fever were seen, but fever is said to be rife in the rains.

When we visited, most of the villages, except those actually bordering on the toitch, were free of mosquitos, but in the rains, it is reported that mosquitos abound.

Spleen count:

- Number of children examined 5074
- Number with enlarged spleen 688
- Splenic index 13.6%

The enlargement varied in size from just palpable to five figures. No facilities were available for examining blood slides from these cases.

**Table 2. Cases of eye conditions**

Condition	n
Cataract	27
Conjunctivitis	23
Blepharitis <sup>x</sup>	46
Entropion <sup>x</sup>	16
Corneal ulcer <sup>x</sup>	2
Corneal scaring <sup>x</sup>	35
Corneal scaring c Anterior Staphyloma <sup>x</sup>	1
Complete cicatrisation of eye	2
Trachoma	0

*X In most of these cases more than one condition was present and the conditions merged into one another, the cases being listed under the most marked condition.*

**III. Eye conditions**

Most of those suffering from eye conditions were old people with a preponderance of women and the condition of long standing, fresh infections were rare. The commonest condition was blepharitis which, from neglect, had given rise to entropion followed by corneal ulceration and corneal scaring leading to partial or complete blindness. Table 2.

Of the cases of cataract, the majority were over mature and the people blind. No cases of trachoma were seen.

Two cases of squint were seen and one case of wound of the upper eyelid caused by the blow from a bull's horn.

**IV. Syphilis and Yaws**

The number of cases of active syphilis and yaws was small. With regard the late stages of these conditions a number of people were seen and treated for bone pains who gave a previous history of yaws and syphilis.

- Active syphilis: one case of penile chancre, six of dermal syphilis and one of gumma (a swelling characteristic of the late stages of syphilis) of the testicle were seen.
- Active yaws: 112 cases were seen, of these the majority consisted of solitary yaws or ulcers with a definite history of yaws, only four cases of florid yaws were treated, two consisted of a mother and her child, the others occurred in separate families.
- Ninety-two cases of bone pains were treated.
- 162 injections of 606 were given.

**V. Tuberculosis**

Surgical tuberculosis is more common than the pulmonary form and both are not common. The following cases were seen:

a. Pulmonary Tuberculosis:



Figure 2. Dr Farmer with medical staff in Sudan 1930 (Credit unknown)

- One case of clinical pulmonary tuberculosis in a man aged circa 40 years.
- b. Surgical Tuberculosis:
- Three cases of marked kyphosis, all in adults with a history dating from childhood. Clinically they were cases of healed caries of the spine.
  - Spinal caries in a man who had received treatment in Malakal hospital, this man still had pain and limitation of a movement.
  - Arthritis of the knee in a boy aged ~15 years - clinically Tb.
  - Tuberculosis of the testicle in a boy aged ~8 years.
  - Tuberculous adenitis in a boy aged ~4 years.

### VI. Leprosy

One very doubtful case was seen at Deishwek - a woman aged ~30 years with slightly leonine features and some loss of skin pigmentation but no deformities. It was impossible to test for anaesthesia. No other members of the family were affected.

### VII. Chronic ulcers

There was a large number; 826 of these were treated and of these more than 90% occurred on the legs. In the majority of cases no cause could be ascertained, in a few there was a history of trauma. They varied in size from a piastre piece to four or five inches in diameter and many were of long history. It is interesting that the intensity of bad ulcers varied from village to village.

### VIII. Snake bite

This was reported to be comparatively common with a

mortality of about 50%. One case of recent snake bite was seen which had recovered. Ten cases of old snake bites were seen leading to various deformities and in some cases loss of limbs. The prevalence of snake bites in this area is increased by the Dinka veneration of snakes, which they will not kill and which they allow to live in their huts and luaks (big huts in Dinka cattle camps).

### IX. Guinea worm

Very little Guinea worm was seen and this was confined to an area near Jonglei on the torch (or toich - grazing lands available during the dry season when floods from the rainy season recede). Two cases of active infection and five cases of old infection were seen and treated. In all cases the infection occurred on the leg.

### X. Tumours

- a. Simple: Cases seen were: four of non-toxic adenoma of the thyroid, all in adult women; eight of lipomata in various parts of the body; one of multiple fibromata; one of bilateral fibrolipomata of the pinnae.
- b. No cases of malignant tumours were seen.

### XI. Abdominal disease

- a. Constipation: a very large number of cases were seen and treated.
- b. Dysentery: According to the chiefs, dysentery is not common. Seven cases were seen who complained of blood and mucus in the stools, and one case of clinical amoebic dysentery in a chief from Dinka Faweil which was treated with a course of emetine.

- c. Hernia: Inguinal hernia was not common, cases seen varied from a slight inguinal swelling to large scrotal hernia; 15 cases of single inguinal and one case of double inguinal hernia were seen. Umbilical hernia was comparatively common in young children sometime accompanied by enlargement of the spleen; 34 cases were seen. One case of ventral hernia, cause unknown, was seen.

## **XII. Skeletal system**

- a. Bone: cases seen were: One of healed rickets in a child in Kongor; five of chronic osteomyelitis, all of the tibia and associated with and probably secondary to chronic ulcers of the leg; one of scoliosis. Four cases of fractures were observed – one was a recent fracture of the humerus that was seen and treated. The other three were old fractures: one in the region of the elbow joint leading to partial ankylosis, one of the forearm with malunion and one of the lower end of the femur also with malunion.
- b. Joints: three cases of arthritis of the knee and one of the shoulder were seen, all were osteo-arthritic in type.
- c. Bursae: seen were two cases of prepatellar bursitis, two of semimembranosus bursitis - one unilateral and one bilateral – and one of ganglion of the wrist.
- d. Tendons: four cases of talipes equinus were seen, two showed no cause, but, from the history, were certainly not congenital; one was associated with a healed leg ulcer and the other with an open ulcer of very long standing.

## **XIII. Congenital deformities.**

The only congenital deformity seen was a hare lip in a boy.

## **XIV. Urogenital**

Cases seen were four of hydrococele of the tunica vaginalis, and two of chronic gonorrhoea near Kongor, sources of infection unknown.

## **XV. Nervous system**

Cases were very rare. Two cases of paralysis of the leg were seen, one was suggestive of infantile paralysis, no cause could be assigned the other.

## **XVI. Ear conditions**

The only one seen was one of external otitis due to dirt. No cases of otitis media were observed.

## **XVII. Skin diseases**

Apart from syphilis and yaws, the only case seen was one of leucoderm of the shoulders, and this may have been syphilitic. No cases of scabies were seen, possibly because the vast majority of the people wear no clothes.

## **XVIII. Respiratory system**

A large number of cases of cough were treated, a few showed signs of chronic bronchitis, but the majority had no physical signs.