

# THE HISTORY AND TRADITIONAL TREATMENT OF SMALLPOX IN ETHIOPIA

by

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SMALLPOX, which has a very long history in Ethiopia, was the most serious of the epidemics from which the country suffered in the past; it was moreover one of the diseases for which society evolved some of its most remarkable traditional cures, as well as being perhaps the first malady to be brought largely under control by the introduction of modern medical practices.

Smallpox is thought to have been native to Ethiopia and adjacent countries of the Nile,<sup>1</sup> and is known to have existed in the area for around a millenium and a half. According to one Arab tradition the disease was first brought to Arabia from Ethiopia by the Aksumite soldiers around 370 A.D.<sup>2</sup> while the *Koran* records that another smallpox epidemic broke out among the Aksumite troops in Arabia two centuries later in 570 or 571.<sup>3</sup> Ethiopian records of the Middle Ages are not sufficiently precise to enable us to trace the various smallpox epidemics which undoubtedly occurred in that period. The royal chronicles mention frequent outbreaks of one kind or another, but seldom indicate the nature of the disease.<sup>4</sup> The chronicler of Zara Yaqob (1434-1468), for example, describes the outbreak of an epidemic of some sort which may well have been smallpox though this is not stated. He says that so many people died at the capital, Debra Berhan, that 'no one was left to bury the dead'. The pious king thereupon built a church, Beta Qirqos, as it was said there would be no plague, drought or death near a shrine. The chronicle goes on to claim that the erection of this church drove the disease from the palace. Zara Yaqob then ordered his subjects to assemble with sticks, branches and holy water with which to bury the dead. He called these bands of grave diggers Congregations of the Gospel, and the branches sticks of Moses, and to ensure obedience he ordered his chiefs to pillage the houses and seize the goods of anyone who failed to obey his commands.<sup>5</sup> It was in all probability this epidemic which was referred to by the Arab historian Maqzizi who stated that it took place in 1435-6 and left Ethiopia almost empty of inhabitants.<sup>6</sup> A later epidemic which broke out in Harar around 1567, killing large numbers of people including the Emir, Nur bin Mujahid, may also have been smallpox, but like so many other outbreaks this cannot be established from the meagre historical records of the time.<sup>7</sup> The character of many later epidemics can, however, be clearly established. Bruce, the Scottish traveller and historian, for example, says that a very severe epidemic of smallpox occurred during the reign of Iyasu I (1682-1706) and that it raged among the Gallas 'with such violence that whole provinces . . . became half desert.'<sup>8</sup> Later chronicles tell of a violent attack of smallpox in 1718 in which many nobles died,<sup>9</sup> and another outbreak in 1768 which

carried off large numbers of persons in Gondar and other areas as far as the frontiers of the realm.<sup>10</sup>

This last-mentioned epidemic is described by Bruce who himself treated some of its victims. He believed that the outbreak had started at the coast, killing, so the local ruler of Arkiko told him, over one thousand people at Massawa and Arkiko. From there the epidemic advanced to Adowa at the time of his own arrival there in the autumn of 1768 spread rapidly inland and had reached Gondar when he arrived there in the spring of the following year. The disease appeared to him 'much more serious and fatal' than in England (where smallpox epidemics were of course still common), and he was led to believe that it had resulted in considerable depopulation, particularly among the Shohos and other people near Massawa, as well as among the Shanqellas in the west where it had 'greatly reduced their numbers' and 'extinguished to a man whole tribes of them.'<sup>11</sup>

The travellers of the nineteenth century, who are much more numerous and informative than those of earlier times reveal that at least half a dozen major smallpox epidemics occurred during the century, namely in 1811-12, 1838 or 1839, 1854, 1878, 1886 and 1889-90, i.e. on average one every generation.

The first of these epidemics was graphically described by Nathaniel Pearce, a British resident in Tigre, who described the disease as 'the most destructive complaint' then known in the country. Writing on September 13, 1811, during a period of civil war, he noted: 'The small-pox at this time committed such ravages throughout the country, that all thoughts of war were abandoned. As the malady increased it became more like a plague than the small-pox, and in a great many towns and villages the people lost all their children, and numbers of grown-up persons, who had not had the disease before, died also.' Appalled by the ferocity of the outbreak, he added:

At Axum the mortality among the people was so great as to occasion the loss of the cattle also, there not being a man or boy left in some families to open their pens and turn them out to grass. Thirty cows were found dead in one fold. At Adowa, the ravages of the disease were not so severe, as a great number of its inhabitants had previously had the disorder the last time it appeared amongst them; but all the other places in Amhara, Tigre, Enderta, and the adjoining districts, Samen, Lasta, Begemder, Gondar, shared the same fate . . . the smallpox carried off the people in all quarters, so that a great part of the country was left in a state of complete desolation.

Four months later, on 4 January 1812, he recorded that 'the small-pox still raged like a plague' with the result that 'throughout the country nothing was heard but lamentations'. He added that one refugee, alarmed at the prevalence of the disease in Tigre, fled to Gojam, only to find that it was raging in that province too; he therefore went to one of the islands on Lake Tana, but, finding it there, was obliged to abandon his efforts to escape the epidemic.<sup>12</sup>

The gravity of the situation is confirmed by the letters written at this time by Ras Walde Sellassie, the local ruler of Tigre, to the English traveller, Henry Salt, which contain such passages as the following: 'The smallpox is a greater enemy of the country than the locust', 'the smallpox has ravaged the

land . . . affliction is heaped upon us', 'the smallpox fills the country with fear'.<sup>13</sup>

The occurrence of one or more outbreaks in the late 1830s or early 1840s is indicated in the writings of several foreign travellers, among them Krapf, Harris and Rochet d'Héricourt and the French Scientific Mission of 1839–1843. The British envoy, Harris, for example, declared that 'small-pox frequently devastates the land', while Haines, the British Consul for the Somali coast, wrote on 18 December, 1845, that the disease was 'still prevalent among the villages of the interior, but is reported to be on the decrease'.<sup>14</sup>

A decade or so later in 1856 the explorer Richard Burton, who described smallpox as 'the most dangerous disease' known in the country, reported an epidemic which raged with great violence in the Harar area.<sup>15</sup>

Another epidemic seems to have broken out during the latter years of the Emperor Theodore II (1855–1868). Blanc, one of his foreign captives, noted that smallpox 'now and then' made 'fearful ravages', while another prisoner, Rosenthal, opined that the disease had at about that time carried off 'thousands' in the Magdala area.<sup>16</sup> A contemporary chronicle tells of a further outbreak shortly afterwards at Adigrat in 1868.<sup>17</sup>

The prevalence of smallpox throughout this period was recognised by all observers. The British consul, Walter Plowden, stated that though the disease was infrequent when it did appear it carried off the population 'in thousands'.<sup>18</sup> Alfred Courbon, a French traveller in the Red Sea area, reported that in the northern provinces, the only area he knew, there were few Ethiopians without smallpox scars and that the mortality among the infected was very high: 50 per cent in the case of children and 80 per cent in that of adults. The disease, he added, was also very severe on the coast.<sup>19</sup> This fact, which was said to be due to the spread of infection from the highlands, was also mentioned by Dr. Martin, a member of the British expedition to Magdala of 1867–8.<sup>20</sup>

The incidence of the disease was no less felt among the Gallas south of the Blue Nile. Plowden says that smallpox broke out every ten years, considerably reducing the population. This statement would seem to be borne out by the great fear of the disease which Massaja encountered in Jimma, Kaffa and adjacent lands; smallpox, according to Massaja, was in fact more or less endemic in regions such as Lagamara and Gudru.<sup>21</sup>

An outbreak in 1878, which was mentioned by the Italian traveller Cecchi, was, he said, particularly serious in Shoa: at the town by Licche, which had a population of 15,000, some twenty or thirty people were at that time dying every day.<sup>22</sup>

Perhaps the most serious epidemic of the second half of the nineteenth century occurred in 1886, and according to an early twentieth century Addis Ababa authority, Dr. Mérab, lasted until 1898 when, as we shall see, a big vaccination campaign was inaugurated. The Italian writer Alamanni states that the disease first appeared at Massawa and made its way via Ailet and Asmara to Adowa where out of a population of seven thousand no less than five hundred people died, including three hundred children under the age of

fourteen. The epidemic quickly spread inland, to Amhara, Gojam and Shoa.<sup>23</sup>

Paul Soleillet, a French traveller writing of this period, stated that at least a quarter of the Shoan population bore smallpox marks.<sup>24</sup> Hodson, a British consul writing a couple of generations later, suggests that the population of Arussi to the south was at this time much depleted.<sup>25</sup> This same epidemic of 1886, or a somewhat earlier one appears to have seriously affected the region later known as Western Eritrea. The German linguist, Enno Littmann, who records that the Mansa Bet Abraha tribe referred to this time as 'the year of the smallpox,' was unable to give its exact date, but says that those who were born then were 'in the prime of life' during his visit to the area in 1905. He adds that before the said outbreak the tribe 'had known the small-pox, but . . . it had not come in all its strength. And in that year there died of the Bet-'Abrehe about seven hundred people, old and young'.<sup>26</sup>

A further wave of smallpox seems to have occurred during the great famine of 1888-1891 which coincided with the death of the Emperor Yohannes.<sup>27</sup> The Emperor Menelik's Swiss adviser, Alfred Ilg, estimated that the latter's army returning from Tigre at the beginning of 1890 lost fifteen per cent of its numbers as a result of smallpox, as well as dysentery, typhus and bronchitis.<sup>28</sup>

Probably the last of the big epidemics occurred early in the twentieth century around 1904-5 when the disease spread over a wide area of the country, being reported by Drake-Brockman at Bulhar in British Somaliland, by Dr. Rosen at Dire Dawa and, subsequently, by Bergsma in the west at Sayo or Dembidolo.<sup>29</sup>

The incidence of the disease throughout this period is apparent from the statement by Dr. Mérab that slaves who had survived smallpox and were thought to be therefore proof against it were considered twice as valuable as those liable to contract it,<sup>30</sup> and that even immediately prior to World War I something like twenty per cent of the population of Shoa were still pock-marked.<sup>31</sup>

Though no further large-scale epidemics were reported, presumably because of the introduction of vaccination, smallpox continued to be well-nigh endemic for several decades. Dr. Brielli, an Italian physician, wrote in 1913 that there were frequent attacks in the Dessie area; British Consular Reports for 1899-1900 and 1911-12 stated that the disease was always prevalent in Harar;<sup>32</sup> while Dr. Montandon, writing of 1910-11, stated that the disease still resulted in a high death rate in most parts of the country.<sup>33</sup> The situation was scarcely better in Eritrea, where, according to a British report for 1919, 'smallpox frequently appears, especially along the caravan roads out of Abyssinia'.<sup>34</sup>

Conditions almost certainly improved as the century advanced, though the Phelps Stokes mission reporting shortly after World War I still took the view that smallpox cases were 'fairly frequent'.<sup>35</sup> Later, in the mid-twenties, a British visitor to Addis Ababa, C. F. Rey, stated that they were 'still very numerous', while a resident in the city, Fan C. Dunckley, a few years later described them as 'common'.<sup>36</sup>

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### *The History and Traditional Treatment of Smallpox in Ethiopia*

The Ethiopian people long employed a number of distinct methods for the prevention and treatment of smallpox. Though these traditional practices, which are of considerable historical interest, were by no means all ineffective they failed, as we have seen, to prevent the periodical appearance of the disease in epidemic form. The great decline in smallpox took place only after the advent of modern vaccination.

The most widespread method of prevention was of course variolation which was practiced in most, if not all, parts of the country. Pearce, the first observer to describe this practice, observed of early nineteenth century Tigre that

upon the approach of the disorder, the people of the country and villages collect their children and those who have not had it into one gang, for the purpose of having them inoculated. Everyone carries a piece of salt, or a measure of corn: they then march together to the neighbouring town, or wherever the disorder may have made its appearance. Here they pick out a person, who is thickest covered with sores, and procure a skilful person or Dofter [i.e. *debtara*, or lay priest] who takes a quantity of matter from him into an egg-shell, and then by turns he cuts a small cross with a razor on the arm, puts in it a little of the matter, and afterwards binds it up with a piece of rag. The salt and other articles which they carry are given to the Dofter, and he divides it with the person from whom the matter is taken. After this operation they all return home, singing and shouting praises to God, in a joyful manner, and beseeching him to preserve them from death during the time of their disease.<sup>37</sup>

The practice of variolation is described by many other observers whose accounts give us a fairly clear picture of the operation. Harris, who wrote of early nineteenth century Shoa, agreed with Pearce that the inoculation was something of a social occasion, for he says: 'many hundred persons assemble, and a layman, chosen for the rectitude of his life . . . proceeds with a razor.'<sup>38</sup> Dr. Petit of the French Scientific Mission, writing of Tigre in the early nineteenth century, states that chiefs often ordered compulsory inoculation in their provinces and that he had seen this done throughout Tigre by command of its ruler, Ras Wubie.<sup>39</sup>

Coming to the operation itself, Harris and Dr. Mérab, the proprietor of the first Addis Ababa pharmacy which opened shop in 1910, both tell us that the pus would be diluted with either honey or butter, presumably to make it go further. Petit gives the additional information that the operation would be carried out by folding the skin at the lower front part of the fore-arm four fingers' breadth above the wrist, and then making an incision with a razor. The virus was then introduced by means of a so-called 'magic stick' and the wound was finally bandaged. Kirk, a physician who visited Shoa in the 1840s, said that care was taken to take the pus from free men and not from slaves—a statement confirmed by Harris who says: 'a free boy of pure blood is selected from among the number of the infected, and carefully secluded until the pustules are ripe.' Courbon, who confirms most of the above testimony, adds that variolation was not usually carried out on children below the age of fifteen or eighteen and was seldom repeated on persons already inoculated.<sup>40</sup>

Contemporary observers varied in their assessment of traditional inoculation. J. L. Krapf, a well informed missionary of the early nineteenth century,

complained that the operation was frequently undertaken too late when the epidemic had already reached considerable proportions,<sup>41</sup> while other writers emphasised that variolation, based as it was on the inoculation of healthy people with an active smallpox virus often actually spread the disease. Harris, always a stern critic, described the traditional mode of variolation as a 'clumsy operation' from which 'death is often the consequence', while Dr. Blanc agreed that there was a 'considerable' mortality among those who submitted to the inoculation. Dr. Wurtz, a French physician sent by his Government to treat the epidemic of 1897, gave a couple of examples. A rich Ethiopian of his acquaintance had his eight maids inoculated, all of whom died of smallpox, while the important French trader, M. Savouré, had told him that his nine servants had all developed syphilis as the person from whom the inoculating virus was taken was suffering from that disease.<sup>42</sup>

Two early twentieth century observers, Dr. Mérab and Dr. Lincoln de Castro, the latter a physician attached to the Italian legation, nevertheless were less critical. Dr. Mérab believed the operation was usually well done, and explained that care was taken to obtain the smallpox virus from a person who was otherwise in good health, above all who was not suffering from venereal disease; it was his opinion, moreover, that the chances of successful immunisation were actually higher than in the case of the European type vaccination then employed. Dr. de Castro agreed that traditional inoculations gave indisputable immunity, but added that the operation was sometimes badly carried out in which case the patient was often rapidly infected.<sup>43</sup>

Besides variolation a number of methods of avoiding or preventing infection were also employed. One of the simplest, which has already been mentioned in passing, consisted in flight, a practice which was already noted by the seventeenth century German Ethiopicist, Ludolphus, who observed that on the outbreak of a pestilence the people often retired with their cattle to the mountains 'putting all their security in flying from the contagion'.<sup>44</sup>

More socially desirable perhaps were the attempts to prevent the spread of infection by prohibiting or controlling the movement of persons. Krapf records that when smallpox broke out at the Shoan capital of Ankober, King Sahle Sellassie (1813-1847) was in the habit of retiring to the nearby village of Mikael Wenz where no one was admitted to his presence, merchants and travellers being forbidden from entering the realm by what the missionary termed a kind of 'cordon militaire'. Half a century later the French physician, Dr. Wurtz, reported in 1897 that many children of the capital, Addis Ababa, had been sent out of town to avoid the epidemic which was then raging and were living under canvas in the mountains some distance away. Popular awareness of the value of isolation was also indicated by the Frenchman's laboratory assistant, Fenski, who records that at Addisghe, a small village in Shoa, a woman of noble family had removed from her home and was camping with her maids near a stream, having posted guards nearby with instructions to allow no one to approach her who had not first completely washed his body and clothes.<sup>45</sup> There is evidence of a similar practice in the Harar area,

for Burton says that during the epidemic of 1856 the Galla peasants surrounding the city prevented anyone from travelling to or from it.<sup>46</sup> Other methods of preventing the spread of infection were also employed. Thus at the time of the outbreak of 1886 the Emperor Yohannes was reported to have made fornication an offence 'on account', as a British report said, 'of the increased chance which it gives for the spread of smallpox.'<sup>47</sup>

Another truly draconian method of dealing with a smallpox epidemic is alluded to independently by several writers, some of them of the highest reliability. Bruce in the eighteenth century learnt that the Gallas of Maitsha lived in such terror of the disease, which, he says, seldom broke out more frequently than every fifteen or twenty years, that when infection was identified in a household, the neighbours, knowing it would spread to the whole area if unchecked, surrounded the house in the night and set fire to it. They then thrust the inmates back into the burning dwelling at spear point even though they were their neighbours or relatives. Bruce's comment was that though in Europe this practice might seem 'a barbarity scarcely credible' it would be considered 'quite otherwise' if one saw the 'dreadful visitation' of the disease.<sup>48</sup> Pearce, who was in the main a more trustworthy observer, tells a similar story half a century or so later. He states that on the first appearance of the disease some of the pagan Gallas would at once set fire to the villages affected and burn the diseased in their homes even though the victims might be their closest and dearest relatives. 'Horrible as it might appear', he adds, 'they considered this practice a very prudent mode of proceeding', and reproached the Ethiopian Christians for not doing the same, saying that 'infinite numbers of their brethren were thus preserved by the sacrifice of the few.'<sup>49</sup>

This Galla practice, which was also mentioned by the Italian missionary Massaja who learnt of it in the Gudru area,<sup>50</sup> had its parallel among the Somalis: Burton in the middle of the nineteenth century and Bardey a generation or so later both record that the tribesmen on the outbreak of smallpox would often decamp leaving the victims to be devoured by the hyenas who thus constituted a kind of sanitary squad.<sup>51</sup> Though this custom later died out, doubtless because of its ruthlessness, it is not without interest that the Somalis were reported in the 1930s as practising rigid isolation of smallpox victims and the burning of houses and personal effects to prevent the spread of infection.<sup>52</sup>

The cures for smallpox employed in various parts of the country varied considerably and were bound up with differing degrees of superstition and magic. Bruce says that a popular 'cure' in eighteenth century Gondar had been devised by one of the monks at Waldaba; it consisted in writing certain characters on a tin plate which were then washed off with a medicinal liquor and given to the patient to drink.<sup>53</sup> A more usual practice, also described by Bruce, was to confine the patient to his room without the smallest breath of air; he would be given hot drinks, extra bed clothing and a fire, and the door would be securely closed to keep the room in darkness.<sup>54</sup> Pearce, who witnessed a similar treatment in early nineteenth century Tigre, states that an infected person would be placed on wood ashes or river sand and be confined to his

house which would be closed to both air and light. The patient would not be allowed to receive visitors, and no male animal or bird was allowed in the vicinity, the popular belief being that in the case of any sexual intercourse even of animals or birds the devil would bring the 'shadow of sin' upon the patient and kill him. Discussing this superstition Pearce adds: 'I have often asked them what they meant by the shadow, and how the shadow would come to a house or hut where every thing was closed, and not a hole or crevice but was stopped up. They said that all connections [sexual intercourse] . . . done while the almighty was angry with them would increase their illness, and vex God so much as not to show mercy upon them at all.'<sup>55</sup>

Petit, also writing of Tigre, describes a different practice. He says that small-pox patients were told to eat and drink plentifully and were obliged to drink a glass of melted butter every morning for eight days (Blanc suggests that linseed oil was sometimes taken instead of butter). If the cure was successful, Petit adds, the patients had to wash themselves for twelve days in the river. They then shaved their heads and were considered unclean for some time before being allowed to associate once again with other people.<sup>56</sup>

Other types of cure were practised among the Somalis. Burton, writing of the mid-nineteenth century, stated that the patient, 'if a man of note', would be 'placed upon the sand, and fed with rice and millet bread till he recovers or dies.'<sup>57</sup> Three quarters of a century or so later Puccioni reported a quite different practice: he says that the Somalis had recourse to fumigation which was effected by placing aromatics under the bed of the patient who would then be buried under the sun-warmed sand with his head uncovered.<sup>58</sup>

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Modern type vaccination, which was first carried out by Jenner in 1796, reached Ethiopia in the second half of the nineteenth century. Vaccination was practised on a modest scale by several of the foreign travellers of the period, above all by Massaja who treated thousands of people in the Galla lands, Shoa, Kaffa and elsewhere, sometimes vaccinating as many as a hundred persons a day in times of epidemics. The missionary soon became known as 'the doctor of smallpox' because the disease is said to have disappeared from the areas in which he operated.<sup>59</sup>

The new type of inoculation gained considerable popularity at court during the reign of the Emperor Yohannes IV (1871-1889). Contemporary sources state that the Emperor Yohannes, his commanders, Ras Alula, the Abuna, or head of the church, King Menelik of Shoa, and King Takla Haymanot of Gojam were all vaccinated at about this time.<sup>60</sup>

Yohannes was convinced by his Greek physician, Dr. Parisi, that the old style variolation actually increased the chances of the spread of smallpox. He therefore issued a decree forbidding his subjects from employing this traditional practice: the British envoy, Harrison Smith, relates that variolation was declared a 'heinous' offence, 'great efforts' being made to substitute the use of European type vaccination.<sup>61</sup> The latter was from the outset remarkably popular. A. B. Wylde, sometime British consul, observed:



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The Abyssinian is not nearly such a fool as regards vaccination as some of the English fanatics; he has had experience of many epidemics, and has seen the terrible ravages caused by this loathsome complaint among those that have never had the chance of being vaccinated, when perhaps ninety per cent of those that have not been operated on die, and the majority of those that recover are marked for life or sightless; while those that have been to the sea coast and have been fortunate enough to have been vaccinated escape altogether, or perhaps only three or four per cent of those taken with it die. I do not believe there is any nation that are more willing to put themselves under the doctor's care than these Abyssinians.<sup>62</sup>

Vaccination did not however become widespread until the reign of Menelik<sup>63</sup> who became Emperor in 1889. A Russian Red Cross hospital was opened in 1897; the British, French, Italian and German legations not to be outdone despatched medical staffs to their legation personnel and established small clinics in the legation compounds. The milestone in vaccination history was, however, 12 May 1898, when the Emperor Menelik, encouraged by the arrival of a special French medical mission headed by Dr. Wurtz, issued an edict for compulsory vaccination in Addis Ababa. It declared: 'We have found in the town of Addis Ababa a new remedy against *fantata* [smallpox]. Go on the eve of St. George's day to be vaccinated at the house of Dr. Wurtz, but if you have already got smallpox do not go'. This edict, we are told, was read out in the market place by heralds and from the following day onwards, Wurtz says,

hundreds of men, women and children, led by their chiefs, came to be vaccinated. One could not believe that they were led by force. Their eagerness was so great that I was obliged to have guards at the gate of my compound to prevent the invasion and I can testify to much hustling and many battles [with the guards].

Wurtz was deeply impressed by the ease with which vaccination was accepted by the Ethiopian population and, like Wylde, explained it by the great fear with which the disease was regarded.

The eagerness of the people, adults as well as children, to be vaccinated, exceeded all my expectation; it was unbelievable. I have seen Galla peasants make a journey of three, four, five and six days' march from their village to Addis Ababa to be vaccinated by me, camping outside my house. Gilbert Fenski, in his camp at Ankober, found about 250 people waiting for him for three days by the road.<sup>64</sup>

A large number of vaccinations were carried out at this time at the afore-said hospital and legation clinics, as well as by Dr. Wurtz, who vaccinated 20,700 people between February and August 1898, sufficient serum being left behind by his mission for the subsequent vaccination of a further 250,000 people. De Castro of the Italian legation later carried out 6,000 vaccinations between September 1907 and April 1911.<sup>65</sup>

Vaccine was at first imported from Europe, but serum was later produced in Eritrea by Italian doctors who also supplied their colleagues south of the Mareb. Vaccination centres were in due course established at Harar and Dire Dawa as well as Addis Ababa.<sup>66</sup>

In the Italian colony soon to be known as Eritrea vaccination was declared compulsory as early as 21 February 1889—four years after the Italian seizure of the port of Massawa. Widespread vaccination in the highlands began a year or so later in 1890, soon after the Italian occupation of Asmara.<sup>67</sup>

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Proclamations designed to popularise smallpox vaccination continued to be issued from time to time in early twentieth century Addis Ababa. These edicts, which make interesting reading, were written in simple but forceful language full of persuasion and exhortation. One such decree, which was signed by Negadras Haile Giyorgis, Menelik's Minister of Commerce and Foreign Affairs, on 11 March 1904 declared:

You see how the smallpox having entered the town is destroying the people.

To exterminate this evil disease from the country, let the people who are in town—adults and children—go and be vaccinated either at the veterinary surgeons' or at the hospital.

To be vaccinated no charge is required and it does not cause loss of time; it does not detain one more than five minutes.

Now all of you who think for yourselves and for your children, if you fail to have the vaccination done and anyone dies, know that it is owing to your laziness.<sup>68</sup>

A later proclamation of 12 December 1905, which was even more imperative in tone, bore the imprint of the Minister of Agriculture, and declared:

*Advice re Smallpox*

We have before this given notice that the veterinary stations at Gulale have a new medicine for all persons who will be vaccinated. But because many have failed to be vaccinated during the present smallpox epidemic, many have died. So now let everyone who has not had smallpox go to the veterinary surgeons and be vaccinated. If they have not already contracted the infection, vaccination will prevent it. But if they are vaccinated after having caught the disease, vaccination will have no effect. Therefore everyone should be vaccinated at once, before he visits his neighbour, or goes home.

Moreover, if anyone suddenly falls ill, the others in the house should be vaccinated before they are attacked.

The smallpox which is the result of vaccination will not damage the body and spoil the face like the smallpox of our country. It has no bad effects. It is not necessary to diet; it does not stop work.

Children can be vaccinated two months after birth and this protects them up to fifteen years. Again, being vaccinated at 15 suffices for a life's span.

Let people whose own country is far away come and buy the medicine and take it away. The doctors show how vaccination should be done. The price of the vaccine for one person is 2 piastres. The doctors vaccinate every day except Sundays, from early morning until 5 o'clock (i.e. 11 a.m. European style)

After we have brought this advice to your notice if you fail to get your family vaccinated, when smallpox kills your children you will greatly repent.<sup>69</sup>

Vaccination services were extended during the regency of Ras Tafari Makonnen, the future Emperor Haile Sellassie. The Phelps Stokes mission reported shortly after World War I that the practice of vaccination was 'gaining ground'. while a decade or so later Rey noted that it was popularly 'recognised and appreciated' with the result that smallpox was 'less met with than formerly'.<sup>70</sup> The Bete Saida Hospital, which was founded by the Regent in 1924 (and later renamed the Haile Sellassie Hospital), was later developed as the capital's main vaccination centre, and one of the foreign physicians, Dr. Naegelsbach, even went so far as to propose compulsory vaccination though this in fact proved impracticable.<sup>71</sup>

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