Guidance for reading:

The following draft manuscript is supposed to serve several purposes:

1. As you might know, I have a (slightly distant) ambition of writing a biography on Halfdan Mahler. The present manuscript serves as a template for a chapter in the potential book, covering what might be seen as a 'transformative' experience in his life. The chapter structure is far from clear, but a chapter on Mahler's experience in India would presumably be preceded by a childhood-youth chapter and followed by (perhaps more thematic) chapters on his work within WHO.
2. The manuscript will – in a condensed form – be presented at the workshop in a series on 'Scandinavian Internationalists: Transnational Biographical Entry Points' (Oslo January 2021). I intend to cut the contextualizing sections on planning and social medicine (probably more in the latter). Eventually this should result in an article in a journal on either history of medicine or global / international history.
3. The contextualizing section on social medicine will be expanded (bullet points on pp. 18-19) and 'lifted out' to form the core in a separate article on the 'Indian' manifestation of social medicine in a new journal/yearbook provisionally entitled 'Yearbook of global development (thematic issue on health).

As always: the manuscript is a draft, please do not quote without permission.

Enjoy the read / Niels

Halfdan Mahler in India 1951-61:

High Modernist Planning, Social Medicine and the Road to Alma-Ata

Halfdan Mahler (1923-2016) comes down as one of the most prolific Director-Generals of the World Health Organization (WHO). His name is closely associated with the drive towards 'primary health care', a programme he vigorously promoted during his fifteen-year tenure 1973-1988. Primary Health Care called for an intersectorial approach to health, seeing it as closely linked to broader social and economic conditions. It strongly urged a process of national planning in health and insisted that communities took an active part in improving their own health. Finally, it favoured simple, 'appropriate' technologies instead of technologically sophisticated solutions for the privileged few.[1] The advocacy of Primary Health Care arguably culminated at a major international conference in September 1978, convened by WHO and UNICEF in Alma Ata, the capital of the Soviet Republic of Kazakhstan, which adopted the 'Alma Ata declaration'. In many ways, Primary Health Care signalled a return to doctrines of social medicine and rural hygiene, which had been significant in the 1930s and 1940s, and it was seen a distinct departure from both sophisticated hospital-based health-care for the privileged few and from the techno-centric, single-disease programmes that had dominated international health efforts in the 1950s and 1960s.

The rise of Primary Health Care can be seen in several contexts.

- NIEO, criticism of development as technical transfer
- Anti-medicine, disappointment with conventional approaches to medicine
- Cold War
- Mahler's personality: idealistic, charismatic, revolutionary

Mahler spent much of the early stage of his career in international health as a WHO medical officer to tuberculosis control programmes in India in the 1950s, and it is both obvious and appropriate to

[1] The content of Primary Health Care is expounded in *Primary Health Care. A joint report by the Director-General of the World Health Organization and the Executive director of the United Nation's Children's Fund*, Geneva & New York: WHO and UNICEF, 1978. For a 'distillation of the principles behind, see Niels Brimnes, 'Bandung Revisited: from rural hygiene to primary health care' https://projects.au.dk/inventingbureaucracy/blog/show/artikel/bandung-revisited-from-rural-hygiene-to-primary-health-care/. In this text, I identify the three core principles of Primary Health Care as 'intersectoriality', 'community participation', and 'appropriate technology'. I now think 'national planning' should be added to the list.

ask to what extent and in what ways his passionate advocacy of Primary Health Care was influenced by his experience in India twenty years earlier. Mahler arrived in Delhi in 1951. He was 28 years old and seconded as Senior Medical officer to a mass vaccination campaign with BCG, a controversial vaccine against tuberculosis. Mahler had received his medical degree from the University of Copenhagen in 1948, and had some experience from working with BCG vaccination in Ecuador. He spent four years designing and supervising India's mass vaccination programme. At the time, it was probably the largest vaccination effort in world history. Mahler left India in the summer of 1955 and returned to Denmark, where he passed the exam qualifying him to take up a position as health inspector in the Danish public health system. In 1957, he married Ebba Fischer-Simonsen, a Medical Doctor, and in 1958 she gave birth to their first son. In late 1958 or early 1959, Mahler returned to India on a WHO mission bringing the family with him. He was sent to the southern city of Bangalore to supervise the establishment of 'The National Tuberculosis Institute' (NTI) and to contribute to the design of India's 'National Tuberculosis Programme' (NTP). In 1962 he joined WHO headquarters in Geneva as chief of the tuberculosis section.

[A few sentences on Mahler's expressions of his 'romance' with India … (quote p. 46 in final report)]

The connection between Mahler's years as a young doctor and the programme that became intimately tied to his tenure as Director-General has been aptly noted by Socrates Litsios, who worked with Mahler in the WHO in the 1970s and 1980s. In an article on 'The long and Difficult Road to Alma Ata', which is partly based on his personal recollection of events, Litsios noted that "Much of Mahler's thinking on WHO's role can be traced back to his experiences in India", but declares he do not see that article as "the place to try to justify that assessment".[2] In this paper, I offer an elaboration on Litsios' suggestion by identifying two features of India in the 1950s which impressed Halfdan Mahler and arguably impacted on his longer-term views on health: the 'the high modernist' belief in planning and a distinct Indian discourse on and advocacy for social medicine.

India's the High Modernist belief in planning

[2] Litsios, 'The Long and Difficult Road to Alma Ata', p.

I have borrowed the term 'high modernism' from James Scott's influential book *Seeing like a State*, where he defines the high modernist ideology as "a strong, one might even say muscle-bound, version of the self-confidence about scientific and technical progress …", which is "unscientifically optimistic about the possibilities for the comprehensive planning of human settlement and production".[3] Scott includes the high modernist ideology in a sinister 'package', which also includes a strong authoritarian state and a prostrate civil society. They combine to make 'high modernist disasters' possible, perhaps even likely. Disasters analysed by Scott range from the relatively benign case of Brasilia – a thoroughly planned and designed, but unliveable city – to the much the much bleaker and deadlier venture of soviet collectivization. On its own, however, the high modernist ideology is not necessarily sinister. To the contrary, it has often been informed by the noblest aspirations for rapidly creating a better world.

India in the 1950s was not a strong authoritarian state – it was a rather fragile union of former colonial provinces and princely states – neither was its civil society prostrate. To the contrary, it had a relatively free and critical press, and the 'argumentative Indian' was well and alive.[4] The Indian state did adhere, however, to the high modernist ideology and its belief in scientifically based planning. The most visible manifestation of this was the five-year plans that symbolized social and economic thinking in India from the 1950s. The notion that state-led planning was essential for the development of India went back to the last decade of colonialism, when the Indian National Congress, Indian business interests and the colonial government all drafted plans that promised to bring not only industrialization, but also better social services to India.[5] This consensus thrived after independence under the moderately leftist Jawaharlal Nehru, who had chaired the Congress Party's' National Planning Committee from 1938. In March 1950, Nehru established the Planning Commission with himself as chairman, and the Commission soon became a powerful centre for economic decision-making. So powerful, in fact, that the Minister of Finance resigned complaining that the commission had effectively become a 'parallel cabinet'.[6] With the launch of the first five-year plan in 1951, India entered the era of planned development.

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[3] James C. Scott, *Seeing Like a State: how Certain Schemes to Improve the Human Condition Have Failed.* New Haven: Yale university Press, 1998, 4, 89. In my *Languished Hopes. Tuberculosis, the State and International Intervention in Twentieth-century India*, Delhi: Orient BlackSwan, 2016, I attempt to apply the notion of 'high modernism' to the history of tuberculosis control in India more generally.

[4] Amartya Sen, ….

[5] Brimnes, *Languished Hopes,* 59; Zachariah, *Developing India*, [99-110, 213-23]; Kudaisya, 'A Mighty Adventure', 941

[6] Kudaisya, 'A Mighty Adventure', 948-51

While India sought to steer a middle way between capitalism and socialism by combining parliamentary democracy with centralized planning, the ruling Congress Party at its 60th session in January 1955 committed itself to 'a socialistic pattern of society'. Nehru used this occasion to herald a new phase of planning in India. The first five-year plan had largely, Nehru conceded, been based on existing resources and schemes, and it represented therefore "limited planning, not planning in the real sense of the word". This was, however, to change in the next plan, which would be based on "the physical needs of the people".[7] In May a 'draft plan frame' for the second and more ambitious five-year plan was accepted by the National Development Council. The architect behind the frame was the statistician P. C. Mahalanobis. He had established the Indian Statistical Institute in Calcutta in 1931 and later won Nehru's favour. In 1949 he was appointed statistical advisor to the Government, and served in this capacity as a *de facto* member of the Planning Commission until he became an official member in 1959.[8] Viewing the first plan as modest and unsystematic – "essentially a list of projects without any clear unity of purpose" – Mahalanobis presented the second plan as something bigger and bolder. Whereas the first plan had focussed on agriculture and increased production of food, the second plan gave priority to heavy industries that must "be expanded with all possible speed".[9] The central and often repeated ambition of the planning process was now to "to achieve full employment within a period of ten years" and the production of steel became the main yardstick for developmental success.[10] The late 1950s, when the 'Mahalanobis model' of planning reigned supreme is often seen as the culmination of the ideology of high modernist planning in India. Although this view has recently been challenged by Medha Kudaisya, who argues that a foreign exchange crisis in 1956-57 in reality derailed Mahalanobis' plan and shifted the power of economic decision-making back to the ministry of finance, the facade of planning as a grand design was kept up and probably even expanded into the 1960s.[11]

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[7] 'The Socialistic Pattern', Address at the 60th session of the Indian National Congress at Avadi, 22. January, 1955, *Jawaharlal Nehru's Speeches*, vol. three, 15-20, quoted from p. 18.

[8] Kudaisya, 'A Mighty Adventure', 960-61.

[9] 'Recommendation for the Formulation of the Second Five Year Plan´, in P. C. Mahalanobis, *Talks on Planning*, Calcutta: Indian Statistical Institute, 1961, 19-46, quoted from p. 22. The inserted description of the first plan is taken from 'Next Steps in Planning', Address delivered as President of the National Institute of Sciences 20. January 1959, in P. C. Mahalanobis, *Talks on Planning*, 93-124, quoted from p. 93.

[10] 'The Socialistic pattern', 16. For another version of the ambition, see 'Recommendation for the Formulation of the Second Five Year Plan', 22. For the importance of steel production, see 'Approach to Planning in India', All India Radio Broadcast 11. September 1955, in P. C. Mahalanobis, *Talks on Planning*, 47-52, 47

[11] Kudaisya, 'A Mighty Adventure, 943, 968-74.

From the outset, India's experiments with five year-plans was accompanied by lofty rhetoric on planning as a 'great enterprise' and a 'mighty adventure'.[12] The goal was to make the Indian people 'plan-conscious' and to make the individual feel part of a much larger, national enterprise. Planning was, therefore, much more than a narrow economic enterprise; it was a political and cultural project serving as a pivotal element in post-colonial nationalism. As recently pointed out by Nikhil Menon: "Planning became a staple of national conversation, and the Five-Year Plans effectively marked an alternate national calendar". The overall purpose of the rhetoric was to create "a postcolonial society of productive and informed citizens who would enthusiastically throw their weight behind the nation's Five-Year Plans".[13]

In July 1951 – when Mahler's tenure as WHO Senior Medical Officer to the BCG campaign officially began – a draft outline of the first plan was presented "for general discussion and comment" and as a "document for the widest possible public discussion".[14] Eighteen months later, in December 1952, Nehru presented a voluminous report of the Planning Commission in *Lok Sabha*, the Indian parliament.[15] Nehru acknowledged, that the Commission had worked "with a true crusading spirit" and declared: "When I see these two heavy volumes of the Report of the Planning Commission, my mind conjures up the vision of something vast – the mighty theme of a nation building and re-making itself".[16] If India should re-make itself, it was deemed crucial to get popular support. The Commission's report duly noted this:

> "An understanding of the priorities which govern the Plan will enable each person to relate his or her role to the larger purposes of the nation as a whole. The Plan has, therefore, to be carried into every home in the language and symbols of the people and expressed in terms of their common needs and problems …(…)… Thus, the people become partners in the Plan".[17]

Shortly after the introduction of the report in *Lok Sabha*, Nehru presented the plan to a broader audience through a New Year's address on All India Radio. "What can be more worth while for any of us than to participate in the building of this ancient and ever young country?" he began before introducing the plan and its targets for increased production of food, power, cotton and steel. The

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[12] Kudaisya, 'A Mighty Adventure', 941-42.
[13] Menon, 'Help the Plan – Help Yourself: Making Indians Plan-Conscious ', In: G. Prakash, M. Laffan, n. Menon (eds.), *The Postcolonial Moment in south and Southeast Asia*, XX: Bloomsbury 2018, 299-323, quoted from pp. 299-300.
[14] Government of India, Planning Commission, 'First Five Year Plan'. Introduction, para 2.
[15] You need to check this in detail!!
[16] 'Economic Democracy', speech in 'Lok Sabha' 15. December 1952, *Jawaharlal Nehru's Speeches*, vol. two, 80-91, quoted from pp. 80, 83.
[17] Government of India, Planning Commission, 'First Five Year Plan'. Chapter 8: Public Co-operation in National Development, paras 3-4. See also Menon, 'Help the Plan – Help Yourself', p. 303.

plan, he emphasized, concerned not only politicians and bureaucrats, it "affects each one of you; and in a democratic society everyone should understand and help fulfilling its task". The plan was ambitious: "Our ideals are high and our objectives great", he said and promised that the plan would "bring about a new social order free from exploitation, poverty, unemployment and injustice." Nehru ended the address by asking the Indian population to become "partners in this great enterprise of building a new India".[18]

At another press conference in May 1955, after the adoption of Mahalanobis' plan frame, Nehru again reached out to the Indian population: "we want to carry the people with us. We can never succeed unless we have the wholehearted co-operation of the people in India".[19] A year later, initiating the debate on the second plan in *Lok Sabha* he employed similar grandiose rhetoric. "We are engaged in the shaping of the future of India", he told the members, adding that the second plan was not the end of India's journey: "There is no journey's end when a nation is marching".[20] He specifically addressed the numerous community projects and schemes, which were designed to bring the plan and its vision to India's villages. As a convinced high modernist, Nehru was able to identify in this endeavour a significant break with past and to sight a bright future:

> "These …(…)… schemes have, I think, created a revolutionary atmosphere in our countryside. I use the word 'revolutionary' in the true sense of the word and not in the bogus sense. That is, they have changed the thinking and the activities of the people. They are pulling them out of the rut of passivity and stagnation in which our villages have lived so long."

In its attempt to bring the ideology of planning to the Indian population and make it 'plan-conscious', the Indian state used much more than political speeches and radio broadcasts. The message was spread to the population through vehicles as diverse as magazines, documentaries, songs and dramas, 'planning forums' at academic institutions and voluntary organizations. A 'National Plan Day' was introduced in 1957, followed by a 'National Plan Week' in 1961. Even Indian ascetics joined to disseminate the secular blessings of planned social engineering. As Nikhil Menon has recently concluded, even if these methods largely failed to serve their purpose they did represent something very significant.[21]

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[18] 'Laying the foundations', Broadcast from all India Radio 31. December 1952, *Jawaharlal Nehru's Speeches*, vol. two, 92-96. See also Menon, 'Help the Plan – Help Yourself', 301-3

[19] 'Sign of Maturity', Press Conference, 31. May, *Jawaharlal Nehru's Speeches*, vol. three, 67-75, quoted from p. 72.

[20] 'The Second Five Year Plan', Speech in Lok Sabha, 23. May 1956, 90-106, *Jawaharlal Nehru's Speeches*, vol. three, 90-106, quoted from p. 91.

[21] Menon, 'Help the Plan – Help Yourself, quoted from p. 317

A consistent theme in the rhetoric of planning was the intimate connection between science, technology and planning. In 1938 Nehru had assured the Indian Science Congress, that it "was science alone that could solve these problems of hunger and poverty, of insanitation and illiteracy, of superstition and deadening custom and tradition, of vast resources running to waste, of a rich country inhabited by starving people". Ten years later he repeated this message, when he assured the same audience of his firm belief that "it is through the method and spirit of science that we can ultimately solve our problems".[22] If Nehru believed in science, he also lauded large engineering works. He often spoke with great reverence about the Himalayas, but saw them mainly as a resource for electrical power. Visiting the Bhakra-Nangal dam project he described dams as the 'temples of the new age': "Which place can be greater than this, this Bhakra-Nangal …(…)… Where can be a greater and holier place than this …?".[23]

The somewhat dryer statistician Mahalanobis expressed similar views. As chairman of the National Institute of Sciences of India he in his 1958 address took 'sputnik' as the emblematic sign of the "revolutionary progress in science and technology in Russia in the course of a single generation". This was an appropriate choice in a country where the dominant political party had recently committed itself to socialism. Mahalanobis declared that the only way to end poverty and unemployment in India was "through rapid industrial development based on science and planning." The following year he ended his presidential address by declaring his "deep conviction that scientists must supply the leadership in national development".[24] In 1962, Nehru made a public speech in Bangalore, in which he narrated how science and technology had helped the European industrial revolution and drew the inevitable conclusion: "We have to absorb the spirit of science in India".[25]

Let me conclude this account of the grandiose high modernist rhetoric accompanying India's five year plans with a quote from yet another of Nehru's speeches. In august 1961 – around the time Mahler left the National Tuberculosis Institute in Bangalore to take up the position as chief of the tuberculosis unit at WHO headquarters in Geneva – the Prime Minister introduced the third

[22] Quotes from Zachariah, *Developing India*, 238; Abraham, *The Making of the Indian Atomic Bomb: Science, secrecy and the Postcolonial State*, 46-47

[23] 'Temples of the new age', Speech delivered in Hindi at the opening of the Nangal Canal, 8. July 1954, in *Jawaharlal Nehru's Speeches*, vol. three, 1-4, quoted from p. 3.

[24] 'Science and National Planning', Address delivered as President of the National Institute of Sciences, 8. January 1958, in P. C. Mahalanobis, *Talks on Planning*, 55-92, quoted from p. 56; 'Next Steps in Planning', 110.

[25] 'Towards Socialist Democracy', in *Jawaharlal Nehru's Speeches*, vol. four, 150-52, quoted form p. 151.

plan to *Lok Sabha*. He perceived a decade's engagements with large-scale planning as a 'pilgrimage' and 'a tremendous effort':

> "Soon after receiving freedom, we started on an exciting pilgrimage through the Five Year Plans, and gradually the concept of planning has seeped down into our people all over the country. The amount of attention which our plans have drawn from the rest of the world has been gratifying. The tremendous effort being made by the Indian people to pull themselves up has been recognized as a matter of the greatest importance".[26]

Halfdan Mahler's belief in planning

Mahler arrived, therefore, in a society increasingly permeated by the rhetoric of the benefits of large-scale social planning. The rhetoric was ubiquitous and he could not escape it. He might have consulted the actual plans, but he might simply have listened to the radio broadcasts or read about parliamentary debates in the newspapers. Perhaps Mahler was familiar with the English version of *Yojana*, the magazine devoted to spread the message of planning, or *Shankya*, the journal of the Indian Statistical Institute, which printed several of Mahalanobis' talks. In any case, Mahler resonated very well with the high modernist ideology of planning. In a way he had to, because the project to which he was assigned from 1951 to 1955 – mass BCG vaccination – was written into the five-year plans.

The plans reiterated the generally accepted view that among infectious diseases tuberculosis was eclipsed only by malaria as a public health problem in India and gave BCG vaccination top priority among the specific measures that could be taken against the disease. The target was to reach 70 million Indians in the first plan period and to cover the entire population below 25 years (estimated at 170 million) by the end of the second plan period in 1961.[27] Given the infrastructural realities in India in 1950s, this was a stupendous and logistically daunting task, and it was exacerbated by the fact that BCG vaccination as it was conducted in the 1950s, required two visits to every locality. The first to give a tuberculin test to identify those who already carried tuberculosis bacteria in their body, the second to vaccinate those who reacted negatively to the test.[28] To the believers in the high modernist ideology, however, logistical obstacles existed to be

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[26] 'The Third Five-Year Plan', Speech in Lok Sabha 21. August 1961, in *Jawaharlal Nehru's Speeches*, vol. four, 142-48, quoted from p. 142.

[27] Planning Commission, Government of India, *First five Year Plan*, Chapter 32, Health, Para 36-37; *Second Five Year Plan*, Chapter 25, Health, Paras 36-37. See https://niti.gov.in/planningcommission.gov.in/docs/plans/planrel/fiveyr/welcome.html (accessed 8. June 2020). Brimnes, *Languished Hopes*, 115

[28] Carrying tuberculosis bacteria in the body do not mean that a person is ill with tuberculosis. Many people carry tuberculosis bacteria but successfully contain the bacteria. In WHO's estimate this is the case for a quarter of the

overcome by a rational approach and systematic planning. They calculated that it would take a decade of carefully planned and scientifically based work to complete this ambitious medical endeavour to be completed.[29]

According to UNICEF officer, Brian Jones, Mahler was good at planning. In December 1953, he described the vaccination campaign in India as a success and ascribed it to Mahler's "initiative, enthusiasm and painstaking care in planning".[30] In a speech delivered at a conference on BCG in Delhi in late 1952, Mahler gave an early example of his confidence in ambitious public health planning. One and a half year of experience had proven, he asserted, that it was "not a utopian idea to plan public health programmes for India's 360 million inhabitants".[31] In his quarterly reports to Geneva and New York, he identified "the lack of systematic and detailed planning" as the main reason for unsatisfactory performances in some states, while also asserting that a very high number of tests could be reached through proper planning.[32] In 1954, for instance, he saw a very successful campaign in the state of Bihar as the result of "efficient planning, publicity and organization". The opposite was happening in in neighbouring Uttar Pradesh. The campaign in this large state was described by Mahler as 'unsatisfactory patch work'.[33] Mahler even associated planning with 'a military' approach, when he explained how mass vaccination with BCG had "an important eye-opening effect on many public health authorities – especially in respect of the importance of detailed planning and 'military' organization at all stages of a Public Health Programme".[34] This was Mahler the high modernist speaking.

It was, however, one thing to praise planning in relation to the specific context of mass vaccination; it was another to generally embrace the ideology of planning. Yet, Mahler increasingly associated the specific task of mass vaccination with the larger vision of planning. The first time he referred to India's five years plans in his quarterly reports was in the third report for 1953. Mahler predicted that continuation and follow up of the campaign would be facilitated as the

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world population. Only a minority, namely those with weak or compromised immune systems will develop tuberculosis. Until the 1960s, experts feared inflammatory reactions if BCG was given to people infected with tuberculosis bacteria, and a tuberculin skin test was therefore required to separate infected from uninfected, https://www.who.int/news-room/fact-sheets/detail/tuberculosis (accessed 27. February, 2020). On the tuberculin skin test, see Brimnes, *Languished Hopes*, p. 6, 108-10, 231

[29] Afte the end of the mass vaccination campaign, BCG vaccination was envisaged to be integrated in one way or another the general health services and continue as part of routine immunization programmes. Brimnes, *Languished Hopes*, xxx

[30] Brian Jones, UNICEF Bangkok to P. Larsen, UNICEF Delhi, 22. December 1953. UN Archives CF/RA/BX/PD/1962/T008

[31] Mahler, July 1952 – June 1953 report

[32] Mahler, 'India BCG Report', 4Q 1954 (quoted); see also 3Q 1953 and final report p. 26

[33] Mahler, 'India BCG Report', 2Q 1954 (quoted), 1Q 1954.

[34] Mahler, 'India BCG Report', 2Q 1954, p. 10

rural health services developed "as envisaged in the Five Year Plan".[35] In 1954, he took consolation from the fact that BCG would be given a high priority in the Second Five Year Plan and described mass vaccination as an "important Five Year Programme".[36] In his extensive final report, written towards the summer of 1955, Mahler loyally referred to the goal of planned 'rapid industrialization', and reminded his readers in Geneva and New York that:

> " … one should not forget that BCG, however insignificant in the total situation, is a Five-Year Plan Project and that its success hereby assumes added importance. Every Five-Year Plan project exceeding its target helps in boosting the confidence and fighting spirit of the people; BCG has definitely contributed its mite within the realm of public health".[37]

In consonance with the prevailing narrative of planned development, Mahler here inserted mass vaccination as part of much larger and laudable enterprise. BCG mass vaccination was a small wheel in a much larger machine. After four years in India Mahler appeared as a firm believer the ideology of planning. In his official correspondence at least, he did not question the rhetoric of the five-year plans, nor did he express doubts about the feasibility of its goals.

Only in one instance did he indicate a distance to the optimistic rhetoric. In his first report from 1954, when the campaign was falling significantly behind the set targets, he provided a narrative of how a 'typical' campaign would set out under great enthusiasm, only to lose steam and after 18 months perform at half the initial output. At that point: "Team leaders come and go without leaving any impressions. Advance planning, publicity and general supervision are rapidly diminishing; and the quality of the work suffers". Mahler hastened to add that it would do great injustice to understand all state programmes through this 'standard narrative', but the account does display Mahler as a more reflexive person than the determined disciple of detailed planning.[38] This side of Mahler also came to the fore, when he in his last report for 1954 – a year in which his reports had been oscillating between confidence and despair – in a defusing tone described the feelings among India's BCG workers as "manio-depressive".[39]

When Mahler returned to India in 1958 or 1959, his task was different. He was no longer charged with running a high modernist campaign that invited detailed planning and military

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[35] Mahler, 'India BCG Report', 3Q 1953, p. 7
[36] Mahler, 'India BCG Report', 2Q 1954, p. 8 4Q 1954, p. 1
[37] Mahler, 'final report, BCG'
[38] Mahler, India BCG Report, 1Q 1954, quoted from p. 6. The account was later published almost ad verbatim in the *Indian Journal of Tuberculosis.* Halfdan T. Mahler and P. Mohamed Ali, Review of Mass B.C.G. Project in India, *Indian Journal of Tuberculosis*, 2, no. 3, 1955, 108-116.
[39] Mahler, 'India BCG Report 4Q 1954. I have not been able to identify and consult Mahler's report for the third quarter of 1954.

organization. Instead, he was to participate in the more inductive and investigative task of developing a new approach to tuberculosis control in India. The establishment of the National Tuberculosis Institute in Bangalore was based on the expectation that mass vaccination against tuberculosis was ending, and on two recent discoveries. First, an extensive survey had shown, that – contrary to expectation – tuberculosis was as widespread in India's rural districts as it was in its major cities. Second, a report from a controlled trial in Madras in 1959 established that the antibiotic drugs against tuberculosis – streptomycin, PAS, isoniazid – which had been discovered in the late 1940s and early 1950s, were as efficacious when given as long-term treatment in the homes of poor Indians as when given in a hospital and a sanatorium. This potentially reduced the cost of anti-tuberculosis treatment and opened up new possibilities for approaching tuberculosis in the community. The task of Mahler and his colleagues in Bangalore was to develop a programme that was both effective, applicable and affordable under Indian conditions.[40]

If Mahler was now involved in a more investigative enterprise, his rhetoric on planning was taken to a more abstract level. The early policy papers from the Institute explicitly tied the task of the Institute to the 'mighty adventure' of large-scale planning. A Technical Report from 1959 stated that the "development of health services in the privileged countries in Europe and North America has in many respects been haphazard and often very costly both economically and in terms of human suffering and injustice". India, by contrast "believes in planning her future". The report expressed an optimistic trust in the "potentialities of BCG vaccination, cheap and effective drugs and gradually raising living standards" and envisaged that tuberculosis through "carefully planned" investigations and interventions could be eliminated as a public health problem within twenty years. The report also noted that community development in rural India was one of the top-priorities in the Five-year Plan and inferred that it was "of immediate practical importance to study how a tuberculosis control programme can be implemented through the machinery of community development".[41] A later report – undated but presumably from 1960 – entitled 'India's national tuberculosis programme as a problem of social planning' used similar, but loftier rhetoric:

> "… it is in the application of available knowledge and in the formulation of comprehensive social plans that our society seriously fails. Scientists know quite a bit about the efficacy of BCG vaccination and of anti-tuberculosis drugs; they know a lot less about large scale application, but where society utterly fails is in formulation and

[40] 'Plan of operation for National Tuberculosis Programme, India', June 1959, IND-MBD-003-1958-69, WHO Archives. See also P. V. Benjamin, *Tuberculosis in India*, 28; Amrith, 'No Magic Bullet'; Brimnes, *Languished Hopes*, 210-24.
[41] 'Technical Outlook and Programme of the National Tuberculosis Institute', Technical Report Series, no.2, August 1959, IND-MBD-003-1958-69, WHO Archives, pp. 1, 6, 13. For a similar and slightly earlier version of this statement, see 'Plan of Operations for National Tuberculosis Programme, India, [IND-MBD-003-1958-69 – check], 6-7.

> implementation of a comprehensive plan to use available methods to reduce the tuberculosis problem effectively, economically and, if possible, quickly."[42]

The report went on to describe existing tuberculosis control measures as "a confused pattern of historical relics" and lauded India's bold decision to tackle tuberculosis "by one comprehensive plan, by a considered and decisive course of action by which the full value of knowledge may be achieved". It was obvious that the plan had to be formulated gradually and in stages, "but the first step is decisive and has been taken; that the efforts shall be conceived and coordinated in one national plan".[43]

The author(s) of these reports are not given, but it is inconceivable that Mahler was not involved. When the National Tuberculosis Institute was formally inaugurated in September 1960, Mahler authored (or lent his name to) an article, which reiterated the passages quoted above – virtually word by word – and added a little extra: "Knowing independent India's outspoken allegiance to social planning this may not surprise anybody, but few, if any, countries have so far paid more than lip service to the goal of maximizing the ratio problem reduction/investment in health and within health in tuberculosis".[44] No one could be in doubt that the WHO officer was increasingly sympathetic to the 'high modernist' course of social and economic development taken by India under the leadership of Jawaharlal Nehru and the Planning Commission.

The discourse on social medicine in India

I use the term 'social medicine' to refer to a range of related approaches to health, which emphasized the intimate connection between healthful living and social and economic conditions. These approaches are united in their scepticism towards a narrow, bio-medical and clinical understanding of health, and in their preference for broader sanitary interventions and improvements in housing and nutrition. The more radical versions call for social and economic reform. Social medicine is, therefore, not only critical of the focus on individual patients in clinical medicine, it also prefer 'horizontal' interventions that aim to improve general living conditions over

[42] 'WHO Special Report: India's National Tuberculosis Programme as a Problem of Social Planning', IND-MBD-003-1958-69, WHO Archives, p. 1.
[43] WHO Special Report', pp. 1-2.
[44] H. Mahler, 'The WHO and the Ideas behind the Institute, *Bulletin Devoted to the Prevention of Tuberculosis*, 7, no. 3 September 1960, pp. 7-12. Quoted from p. 7-8. It is not clear if the text was given as speech during the inauguration ceremony of the institute on 16. September 1960 [Check that the quoted passage is not also in India 103- file].

top-down 'vertical' programmes that target single diseases.[45] In this way social medicine attempts to improve the health not only of the privileged few, but the population in general.

With roots in the late nineteenth-century social medicine rose to prominence in the 1930s, particularly under the auspices of the League of Nations Health Organization (LNHO). Applied in a still rural world it transformed into the closely related concept of 'rural hygiene', and a major event was a large LNHO conference in Bandung, Indonesia, in 1937, which debated rural hygiene in the context of a largely colonial Asia.[46] Social medicine is also associated with public health, because both can be contrasted to individualised and hospital-based, clinical medicine.[47] They are not identical, however. Public health encompasses top-down, technologically based, vertical interventions – such as a mass vaccination campaign – to which some advocates of social medicine would be sceptical.

Social medicine is, therefore a diffuse concept that has assumed a variety meanings, depending on the context in which it appeared. Among the contentious areas are the role of the state, the appropriate qualifications of medical personnel and the status of non-western, indigenous traditions of medicine. While it usually envisage a central role for the state, it is not necessarily advocating 'socialized medicine' run exclusively by the state.[48] Social medicine also questions whether the highly qualified, specialist doctor is the most useful type of personnel in the design of health systems, but there is no consensus on the relative importance and appropriate position of highly skilled personnel.[49] And while social medicine generally seeks the active cooperation of local populations, there has been more disagreement over the extent to which non-western, 'indigenous' traditions of medicine should be incorporated into health services.[50]

In India in the 1950's there were extensive debates on how to build an appropriate public health system for the newly independent state. In these debates, notions of social medicine and rural hygiene played a pivotal part, and these notions were of course coloured by the distinctive Indian experience in the fields of health and disease in the first half of the century. The foundational

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[45] Sunil Amrith, *Decolonizing International Health. India and Southeast Asia, 1930-65*, Basingstoke: PalgraveMalmillan, 2006, 29-42. Iris Borowy, *Coming to Terms with World Health. The League of Nations Health Organization 1921-46*, Frankfurt: Peter Lang, 2009, 199-204, 325-60. Randall M. Packard, *A History of Global Health. Interventions into the Lives of Other Peoples*, Baltimore: Johns Hopkins University Press, 2016, 47-88.

[46] Borowy identifies 'social medicine' and 'rural hygiene' as the most important areas, in which the League of Nations Health Organization made an impact. Borowy, *Coming to Terms*, 325, 446.

[47] The article on 'Public Health' in Encyclopedia Britannica, for instance sees 'public health' and 'social medicine' as 'comparable terms'. https://www.britannica.com/topic/public-health (accessed 12. June 2020).

[48] Check Sigerist debates – Brown, Fee etc. …

[49] Farley …

[50] Borowy on 'preparatory committee', 350-56.

document for these debates was the report of the 'Health Survey and Development Committee', commonly known as the Bhore Committee. It was established in 1943 with the double task of making an extensive survey of existing health services in British India and to make recommendations for their future development. Its report was published in 1946, and while the Committee officially suggested plans for a post-war British India, most people recognized that they were in fact making plans for an independent, but also poor, state.

The report of the Bhore Committee appears as a clear endorsement of social medicine. Introducing the health plan for the future, it made it clear that it gave priority to broad interventions in the environment: "At the outset, we must ensure the conditions essential for healthful living in town and country-side. Suitable housing, sanitary surroundings and a safe drinking water supply are the primary conditions for securing such a measure of environmental hygiene as is essential to ensure the pre-requisites of a healthy life".[51] A few pages later, the report made an explicit reference to and aligned itself with 'social medicine'. This emerging approach to health had "widened the conception of disease from the narrow view of tissue changes and microbial and other specific causes by the inclusion of social, economic and environmental factors which play an equally important part in the production of sickness".[52] It cautioned against any belief in 'technological fixes', declared that the desired "new health order" could not "be achieved through a bottle of medicine or a surgical operation" and that it saw "no magical wand to wave these changes into being overnight".[53] In the introduction to a chapter on environmental hygiene, this position was once again stated with admirable clarity: "In the campaign for improved health, drugs, vaccines and sera can in no way replace such essentials as a hygienic home, good food, fresh air and a safe water supply".[54]

The Bhore committee unambiguously recommended that the future health service in India be the responsibility of the state. It should consist of 'whole-time salaried' doctors and be free for all. Considering developments in the United Kingdom, United States, Canada, New Zealand and – not least – the Soviet Union, this was identified as 'the modern trend' and the only way to ensure that "the poor man in the rural areas received equal attention with his richer neighbour".[55]

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[51] *Report of the Health Survey and Development Committee*, Calcutta: Government of India Press, 1946, vol. II, 2.
[52] *Report of the Health Survey and development Committee,* II, 7
[53] *Report of the Health Survey and development Committee,* II, 3-4.
[54] *Report of the Health Survey and development Committee,* II, 218
[55] *Report of the Health Survey and development Committee*, II, 8-15. Quoted form p. 15.

Inherent in the vision of the Bhore Committee was also the notion of a 'new doctor'. In a lofty tone reminiscent of the rhetoric on planning, the report stated that the "physician of tomorrow … will naturally be concerned with the promotion of the new era of social medicine". Medical students were to be better educated in preventive medicine and public health, and should be acquainted with the environmental and social conditions that caused disease. It was "only by doing so, that the medical student will be properly equipped for his future responsibilities as a doctor and as an advisor to the people in matters relating to health".[56] These ideas prompted considerations on whether India should aim to educate more "less elaborately trained" and therefore cheaper doctors. One source of inspiration was the semi-skilled 'feldshers' which had proved highly valuable in the successful expansion of medical services in the Soviet Union. On this issue, the Committee was divided. The majority resolved that India's resources ought to be "concentrated on the production of only one and that the most highly trained doctor, which we have termed the 'basic' doctor". This 'basic' doctor was to hold a five-year university degree, which must include community, preventive, and ultimately social medicine: "Preventive medicine leads easily to social medicine, and it is as exponent of the principle of social medicine that we would wish the 'basic' doctor to go forth into the world of medicine".[57]

A consequence of the promotion of the 'basic' doctor was the abolishment of the class of less educated licentiates, to which two-thirds of the exiting cadre of Indian doctors belonged. A minority of six members disagreed with this position. According to their minute of dissent, the shortage of doctors in India – particularly in the rural areas – meant that the most pressing issue was to "increase their numbers to the maximum extent in the minimum time". In such circumstances, it would be a mistake to abolish the licentiate doctors, which could be properly trained in just three and a half years. The majority was criticized for blindly following the line of the contemporary British Goodenough Committee, while the minority took their lead from the more relevant Soviet experience, where the acceptance of lower educational standards had resulted in a dramatic increase in the output of doctors.[58] In a separate minute, two of the dissenters lauded the licentiates "as an important indigenous feature of the growth of Western medicine in India and no section of the profession in the country have greater service of humanity or medical science to its credit". They identified congress politicians as particularly keen to abolish the licentiates and accused them of prioritizing professional medical interests over the interests of the 'rural masses'. The unfortunate

[56] *Report of the Health Survey and development Committee*, II, 18 and I, 160-61
[57] *Report of the Health Survey and development Committee*, II, 339-41, 356
[58] *Report of the Health Survey and development Committee*, II, 349-51

consequences of educating only the 'basic' doctor would, they argued, be borne "by the dumb millions of the countryside, who are to be deprived of licentiate service …".[59]

If India lacked doctors, it lacked nurses even more. The Committee's estimate that India needed a long-term five-fold increase in the number of doctors was dwarfed by the need to expand the number of nurses almost one hundred times: the existing number of 7,750 was to grow into 680,000! To meet this challenge the Committee did not hesitate to recommend – in contrast to its position on doctors – that there should be two grades of nurses.[60] It also suggested that a new category of 'public health nurse' should replace the poorly trained health visitors, which struggled to educate the public against "the widespread influence of superstition, ignorance and unhealthy habits". The concept of public health nurses was imported from western countries, and this type of medical worker would – among other things – assist families "to carry out medical, sanitary and social procedures for the prevention of disease and promotion of health".[61]

While better and properly educated medical servants would bring the health services to the population, the committee repeatedly emphasized the importance of the active participation of the population. The people had to be "aroused from their apathy" before the prevailing deplorable level of sickness could be overcome:

> "A spirit of self-help should be created among the people through the development of co-operative effort for the purpose of promoting curative and preventive health work. In the programme of health development, which we put forward, the need for securing the active co-operation of the people in the day to day functioning of the health organisation should be prominently kept in view".[62]

The urge to secure the cooperation of the people did not extend, however, to the incorporation of indigenous traditions of medicine. On these, the Bhore Committee had little to say, claiming that it was beyond its competence to comment on its merits. The Committee accepted that indigenous medicine was influential, cheap and that it might contain "empirical knowledge" of some value; but also warned against promoting these traditions for reasons of "patriotic pride". This was a reference to attempts to position indigenous traditions of medicine as a marker of pride and 'difference' in the nationalist movement. The Committee had little time for such sentiment: "We do, however, say quite definitely that there are certain aspects of health protection which, in our opinion can be secured, wholly or at any rate largely, only through the scientific system of medicine". To comply

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[59] *Report of the Health Survey and development Committee*, II, 351-54
[60] *Report of the Health Survey and development Committee*, II, 389
[61] *Report of the Health Survey and development Committee*, II, 395
[62] *Report of the Health Survey and development Committee*, I, 19

with national pride, it added that modern scientific medicine was neither Eastern nor Western, but a "corpus of scientific knowledge and practice belonging to the whole world and to which every country has made its contribution". [63] The 'basic doctor' suggested by the Committee was, therefore, unambiguously trained in 'modern', western medicine, and on this issue there was no dissent. The proponents of keeping the less educated licentiate doctors even cautioned that if this class be abolished, indigenous Hakims and Vaids would take their place.[64]

There was, however, one group, which had to be incorporated into the future health services for "many years to come." That was the Indian mid-wife, the *dai*. While the rates for maternal and infantile death were described as 'apalling', the number of midwifes in British India had to rise from 5,000 to 100,000. If the inclusion of the Indian *dai* was not desirable, it was inevitable. The committee described the *dai* without enthusiasm, realizing that "the dead weight of ancestral tradition may be so heavy on her that, in attempting to educate a woman of this type, the success achieved may prove to be quite limited." The *dai* was imagined as a figure that had to be 'won over' for scientific medicine, and since she might be afraid to lose her customary position in local society, she should be approached with caution. The Committee advised to proceed "only by stages and with a sympathetic understanding of her own background of ignorance and prejudice, to win her over to the adoption of certain necessary changes in her traditional practice". The Committee judged that it would take fifteen to twenty years for the younger *dais* "to qualify for the full course of training prescribed for a midwife, and the long-term ambition was to 'upgrade' the existing "class of hereditary workers" into "fully trained and efficient workers".[65] These views on the *dai* neatly condense the paternalistic attitude towards indigenous medicine inherent in the version of social medicine represented by the Bhore Committee.

- Bhore Committee's recommendation in the field of tuberculosis – Mahlers field. BCG-vaccine and antibiotic drugs are not yet available → strategy without biomedical remedies
- Use Raja's 1951 lectures to show that the ideas of the Bhore Committee was still around in 1951

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[63] *Report of the Health Survey and development Committee*, II, 455-57, quotes from 455, 456. On the somewhat aborted attempt to incorporate indigenous traditions of medicine into the nationalist narrative in early twentieth-century India, see for instance Poonam Bala, '"Nationalizing" Medicine: The Changing Paradigm of Ayurveda in British India' and Shamshad Khan 'Colonial Medicine and Elite Nationalist Responses in India: Conformity and Contradictions', both in Poonam Bala (ed.), *Contrasting Colonial Authority. Medicine and Indigenous Responses in Nineteenth and Twqentieth-Century India.*

[64] *Report of the Health Survey and development Committee*, II, 353

[65] *Report of the Health Survey and development Committee*, II, 396-402, quotes from 397, 399, 402

- Use Nehru's and Kaur addresses to the third conference on health ministers (1950) to show official approaches
- Use Kaur's speeches, Borkar (1957) and Five-year plans to show development away from social medicine
- Use the Raman controversy over BCG as an example of the clash between Bhore Committee visions and techno-centric public health – this shows that Mahler came as a representative

Halfdan Mahler's Ambiguous Relation to Social Medicine

By contrast to his immediate and wholehearted acceptance of the notion of planning, Mahler was less clear-cut in relation to social medicine. His reports contained a remarkably sharp anti-doctor rhetoric and several references to the need to educate 'the masses' to take responsibility for their own health, but he did not address the broader assumptions of social medicine until 1955. In the light of both contemporary debates in India and Mahler's later career as the prime advocate of 'primary health care' this might seem surprising. He must have been well-acquainted with the debates on health in India and its focus on social medicine, and the report of the Bhore Committee surely was compulsory reading for any doctor on long-term WHO duty in India.[66] However, given the fact that Mahler arrived in India as the representative of a vertical, techno-centric campaign, that could – as the example of Raman's criticism illustrate – be constructed in opposition to the ideals of social medicine, it is perhaps less surprising that his encounter with it was more protracted and ambiguous.

Mahler voiced his suspicion towards the skilled, clinical doctor from his earliest reports. In the speech delivered at the BCG conference in Delhi in December 1952, he stated that he had "no doubt that doctors with a clinical background will never put up with the hard and monotonous BCG work", and he therefore suggested that only young doctors "with a public health outlook" be recruited for this service. Mahler held that if the team doctor took no active interest in the BCG work "it might be preferable to let such a team work without a doctor".[67] In his last report for 1953 he addressed the self-styled condition of 'BCG Fedupness' and explained to his superiors that the cause of this 'psycho-economic disease' found in many public health programmes was "the clinical atmosphere pervading the Health Services in many states".[68] In his final report, he similarly

[66] In his final report Mahler did refer to the Report of the Bhore Committee, along with references to the Five-Year Plans. See Mahler final report, 3.
[67] Mahler, Speech 1952, 7-8
[68] Mahler, 4Q, 1953, 4

complained about the "dearth of public-minded doctors in a clinically infested atmosphere".[69] Mahler did concede that low salaries might explain the lack of enthusiasm for BCG-work among highly qualified doctors, but his reports reveal a deeper aversion towards this group, which he referred to as 'over-' or even 'super-' dignified and with "a high-brow indifference to such a simple thing as reading a tuberculin reaction accurately and uniformally".[70] In his final report, he claimed that half of the qualified team leaders had "a positively harmful influence" on the campaign. The less skilled technicians was portrayed, by contrast, as 'young, 'energetic', and as 'fine boys'.[71] It was this group, unspoiled and unaffected by the attitude of the clinically trained doctor, which might be able to provide better health to "India's rural masses". He found it "pleasantly amusing, though a blow to most doctors' professional conceit, that in India non-medical auxiliaries, after thorough training in a practical public health measure, do a better and more conscientious job than doctors".[72] Mahler's aversion towards the clinically trained doctor is noteworthy, not least because he could not have adopted it directly from the prevalent discourse on social medicine in India. As demonstrated above, this discourse – while critical of sophisticated clinical medicine – envisaged a doctor which might be 'new', but nevertheless extensively trained (also) in clinical medicine.

Another recurrent feature of Mahler's reports on BCG was references to the potential of the mass vaccination campaign to educate the rural population in health issues and ensure their active co-operation. Mahler might have found the health outlook of the Indian villager 'passive', but he soon began to emphasize the educative value of mass vaccination, which: "will make it possible for us to give the rural public a clear idea of what modern public health can do for them". He ended an early report emphasizing the untapped resources of the masses:

> "Our results from the mass BCG campaign may still be deficient as regards quality and quantity but they irrefutably prove that the active interests of the masses in their own health is easily roused when an enthusiastic approach is made … (…) … The greatest asset, however, of this campaign may be the elightment [sic] of the rural masses in respect of the possibilities for achieving and the benefits derived from physical well-being. When first the rural masses realize and are able to formulate their demands for a healthier life, no power can deny it to them".[73]

[69] Mahler, Final Report, 20
[70] Mahler, 1Q 1954, 5; 2Q 1954, 2; 4Q 1954, 8
[71] Mahler, 1Q 1954, 5; 4Q 1954, 5
[72] Mahler, Final Report, 21
[73] Mahler 1952-53, 14-15. For Mahler's reference to "the present passive health-outlook of the villagers", see Mahler 3Q, 1953, 2. See also Mahler, Final Report 9.

By 1954, Mahler stated that the campaign was "insisting on the imperative need for active cooperation of the public" and identified one of its guiding principles as gaining the "confidence and active cooperation of the villagers through kindness and smile".[74] In his final report a year later, he defined the purpose of the campaign as both protection through vaccination and 'health education'. He further claimed that the campaign was "the very first mass public health project which has to count on the enthusiastic cooperation by the public" and emphasized how the villagers were taken into confidence by campaign workers: "if successful this approach could have the greatest social impact on the villagers' attitude towards outside help, and a healthy effect on the existing stagnated public health concept".[75]

During his tenure as WHO medical officer to the BCG vaccination campaign, Mahler seems to have seen himself as a combatant in a contest between 'clinical medicine' and 'public health'. In characteristically vivid style, he complained about the reigning clinical outlook in the medical profession in India:

> "As long as it is considered infinitely more important to remove an inflamed appendix – occurring amongst the privileged 2 to 3 per cent of the total population – than to give 10,000 BCG vaccinations in the rural areas, one could hardly expect Public Health workers to develop that high working spirit which is indispensable for a high quality and sound economy of any Public Health programme in India".[76]

Mahler believed, however, that the vaccination campaign would have an impact. According to one report, it had "greatly catalysed the process of converting the minds of medical people from looking clinically at tuberculosis to conceiving the disease as a public health problem".[77] According to the final report on BCG, Mahler emphasized that BCG vaccination was "a public health measure, adopted against a public health problem", and claimed that it had dealt an "urgently needed blow" to the clinical approach to tuberculosis. In a wider sense the "mass BCG project has through mobilizing a whole-hearted cooperation and understanding of public catalized [sic] the process creating demands for more public health".[78]

If public health served as the 'good' antidote to the 'faulty' clinical medicine in Mahler's reports up to 1955, Mahler did engage with the fundamental assumptions in social medicine in his final report on BCG. He began by downplaying the importance of specific

[74] Mahler 2Q 1954, 10
[75] Mahler, Final report, 10, 15.
[76] Mahler, 4Q 1953, 4
[77] Mahler 2Q, 1954, 9.
[78] Mahler, Final report, 30, 39.

infectious diseases – cholera, plague, malaria and even tuberculosis – when contrasted to more fundamental problems such as malnutrition, mental disease and widespread gastro-intestinal conditions: "The greatest difficulty in the promotion of health is probably the lack of genuine understanding among doctors of the *social impact* of public health conditions".[79] He noted that environmental sanitation was "at a very low ebb in India" and that the congestion in urban slums was extreme: "Too few can afford an adequate intake of calories, and less would take trouble at a balanced diet".[80] Mahler even admitted that the effect of BCG vaccination and other specific measures taken against tuberculosis had never been "established beyond doubt" and indicated that what really mattered was raising the general standard of living: better housing, better nutrition and general environmental sanitation.[81] This was a new accentuation in Mahler's views and it came much closer to the core of social medicine, than anything he had written in his first four years in India. Mahler was, in fact, moving towards the views held by the adversary of 'his' campaign, A. V. Raman.

The papers written from the NTI in Bangalore from the late 1950s contained less explicit references to the issues featuring in discussions about social medicine. The report 'India's National Tuberculosis Programme as a problem of social planning', unsurprisingly made it clear that tuberculosis control was part of "social policy action", and that those involved in the design of the programme were 'social planners'. Given the nature of the task assigned to the staff at NTI, it is equally unsurprising that the report stated that the NTI would only consider measures "which tomorrows India will be able to afford for the whole of its population".[82] Considering the available specific measures against tuberculosis and using a vocabulary of investment-cum-consumption, established sanatorium treatment was written off as elitist 'conspicuous consumption'. The vocabulary was borrowed from the Swedish Economist, Gunnar Myrdal, but adherents of social medicine would – using different words – reach similar conclusions on expensive elitist

[79] Mahler, Final Report, 3. Emphasis in original
[80] Mahler, Final Report, 8
[81] Mahler, Final Report, 17. Lack of conclusive evidence of the protective effect of the BCG vaccine was a major reason that the vaccine was still controversial in the 1950s. A several attempts, a major trial in Chingleput (Chengalpattu) District outside Madras (Chennai) from 1968 to 1978 established that under Indian conditions BCG did not provide any protection against pulmonary tuberculosis in adults. See Brimnes, *Languished Hopes*, 81-83, 148-82, 259-63. See also Bryder, 'We shall not find Salvation in inoculation'; Brimnes, 'BCG Vaccination and WHOs strategy for Tuberculosis Control'; McMillen and Brimnes, 'Medical Modernization and Medical Nationalism'
[82] 'WHO Special Report: India's National Tuberculosis Programme as a Problem of Social Planning', IND-MBD-003-1958-69, 2 [NB: ENTIRE SECTION ON PAPERS FROM IND-MBD-003 MUST BE REWRITTEN AFTER NEW CONSULTATION IN GENEVA]

institutions.[83] As it turned out, India's national programme to control tuberculosis came to be based on the free provision of the available 'technological fixes': BCG vaccination and (domiciliary) treatment with antibiotic drugs. The programme, which Mahler helped to develop, was therefore both anti-elitist and techno-centric.

In addition, the programme contained a new element, which became apparent after Mahler left India: it claimed to be centred on the people's needs. The main figure in the development of this feature seems to have been the Indian doctor Debabar Banerji, who was hired by Mahler in 1959 for the position as sociologist at the NTI.

- Expand on Banerji role and his collaboration with Stig Andersen, and probable links to Mahler …

It is doubtful that these had a great impact on Mahler before he left India, but given his continued relations with both Banerji and Andersen, the notion that health policies should take their point of departure in 'people's needs' can reasonably be included among the ideas Mahler encountered and engaged with during his decade long 'romance' with India.

Other Sources of Influences

Mahler's official correspondence from India in the 1950s reveals an idealistic doctor, who valued rational planning within the mass vaccination campaign and easily embraced the lofty ideals of large-scale social planning enshrined in India's five-year plans. From the outset, he saw himself as a crusader for public health, whose main enemy was the highly educated doctor with a clinically infested attitude. He quickly realised the potential of mass vaccination to raise the health consciousness of the population, but it took four years before he explicitly aligned himself with the fundamental assumptions of social medicine, as they were promoted, debated and contested in post-colonial India after the publication of the report of the Bhore Committee. Mahler came to India in 1951 as the representative of a techno-centric, vertical, externally designed top-down public health campaign. When he left India a decade later, he had been instrumental in outlining a national programme that continued to be based on vaccines and drugs, still saw the integration of the vertical BCG campaign as a thing of the future, but which also began but to take the perspective of the patient in consideration.

[83] 'WHO Special Report', 8-9. Reference was made to Gunnar Myrdal, *Economic Theory and Underdeveloped Regions,* London: Gerald Duckworth & co., 1957.

The person that returned to WHO headquarters in Geneva in the early 1960s was obviously formed by his decade long experience in India, but before I conclude that he was *excusively* formed by this experience, it is appropriate *briefly* to ask what other experiences that might have influenced him. It is, for instance, obvious to ask whether Mahler's childhood and adolescence in post-war reconstruction Denmark had implanted a sympathetic attitude towards planning, and whether his time as a medical student at Copenhagen University had provoked an aversion against clinical medicine in the future Director General of WHO.

- Consider briefly: high modernist planning / visions of social engineering in post-war Denmark
- Consider briefly: the extent Mahler could have encountered social medicine as medical student in Copenhagen

Conclusion: The road to Alma Ata

[How much did Mahler take with him from his experience in India in the 1950 as he developed the ideas of PHC?]