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Hunger, Science, and Politics: FAO, WHO, and Unicef Nutrition Policies, 1945 - 1978, Chapter III - Nutrition after W.W.II, by Joshua Nalibow Ruxin, A dissertation submittd for the degree of Doctor of Philosophy University College London

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as early as the 1930s. Noting that the wealthy were overwhelmingly healthy and the poor were predominantly malnourished, he moved nutritional debate away from science and education and toward economics. Orr believed that the international priority for health in the post-war world should be universal access to staple foods priced within reach of all people. By focusing the work of FAO on food supply, Orr temporarily downgraded the position of the scientist-nutritionist in international policy.

During Orr's time at the helm of FAO, it became clear that UN agencies and the UN itself would have considerably restrained powers in international policy-making. Two other agencies soon entered the health arena, WHO and Unicef, and their positions hardly seemed stronger than FAO's. The governments of the world were prepared to deal with crises in nutrition, but not to attack malnutrition radically as had never been done previously. Before substantive nutritional programmes could be contemplated, the nutritionists would first have to identify the problems scientifically before making their policy and programmatic recommendations. Although Orr had enough demographic data to show that the world population increased by 22 million per year, mainly in the developing countries, and that many of those born suffered from malnutrition, rampant hunger in Europe would have to be his central priority.[105] Figuring out the basic hunger problems of the developing world would be a task left to Orr's successors.

[105]'John Boyd Orr Baron Boyd Orr of Brechin Mearns', op. cit., note 14 above, p. 67.

Chapter III
Nutrition after W.W.II

> I was with Aykroyd and in transit going to America, and we met Platt in the airport who was a little cold with us. And we said that we were going to America for a conference and he said to us, 'well, I'm going to go to Africa to do **WORK**.'
>
> Marcel Autret on an encounter in 1952, (emphasis his)[1]

Nutrition as Panacea

After W.W.II, three major developments set an innovative and unique tone for international nutritional issues: firstly, a huge increase in researchers, mainly of paediatricians, in the developing world, secondly, the shoring up of FAO, and lastly, the formation of Unicef and WHO. Among researchers working on nutrition were several who gained international attention: Gomez in Mexico, Meneghello and Monckeberg in Chile, Brock and Hansen in South Africa, Bhattachariyya in Calcutta, McLaren in Lebanon, and Calvo in Venezuela.[2] These researchers were no less than pioneers in research which would emerge as a field in its own right. Their work drew the attention of young, freshly-minted medical doctors who would come to develop, influence, and eventually dominate the field of nutrition in the developing world.

According to popular scientific writing during the 1930s and 1940s, hopes for peace and stability were pinned on the spread of nutritional science and resources. In a nutritional book "intended for the layman" one University of London professor wrote ominously in 1938 that "The survival of democracy or its annihilation during the next few years may easily be determined by the measure of attention given in the various countries to what have come to be called the problems of human nutrition."[3] When the book containing this comment was extensively reworked and reprinted in its third edition nine years later, the remark remained. This perspective was surprisingly plentiful in the press, undoubtedly inspired by the crisis in food supply much of the

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[1]Marcel Autret, interview, 14 April 1996.

[2]J. C. Waterlow, 'Childhood malnutrition in developing nations: looking back and looking forward', *Annual Review of Nutrition*, 1994, 14, 1-19, on p. 3. Also, Nevin S. Scrimshaw, interview, 25 July 1995.

[3]Sir J. C. Drummond, 'Preface', in A. L. Bacharach, *Science And Nutrition*, 3rd ed., London, Watts & Co, 1947, p. V.

world faced. Another popular book on nutrition used world food shortages to justify expanding common knowledge about the constituents of a healthy diet.[4]

The task of nutritional propaganda was left to the gigantic emerging agricultural companies, mainly located in the United States. In a pamphlet published by the International Harvester Company, the author hypothesized "sketchily and superficially" that "it is difficult to understand why chemical deficiencies in the diet, if sufficiently pronounced, would not cause corresponding deficiencies in the chromosomes and their constituent genes."[5] Thus, according to this member of the company's public relations department, malnutrition spawned by the war could lead within one generation to "the degeneration of the species."[6] Literature abounded with jargon about the creation of "a race of sturdy children" through the new science of nutrition.[7] Thus, in the popular mindset after the war, nutrition was seen as the central component of lasting peace, human advancement, and genetic maintenance. In this unique and unusual role, nutrition and nutritionists were in a powerful position for recognition, both from the public and from governments.

FAO's Early Nutrition Work

While many applauded Orr's effort and idealism, a dew of pragmatism, firmly based in science and surveys, descended into the mindset of some scientists and politicians. The *World Food Survey* was the first large-scale project conducted by FAO and ostensibly formed the scientific basis of Orr's plan for a World Food Board. Experts knowledgeable in nutritional issues from several governmental agencies joined with FAO to collect the necessary data for an estimate of caloric distribution throughout the world. Out of the 70 countries surveyed, many provided only general information about food production, and estimates of per capita caloric consumption were made accordingly. Conducted and published during three months of 1946, the survey confirmed the suspicion that the world's population was extremely hungry. The introduction to the survey reflected the conviction that had been held without concrete scientific support:

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[4]A. B. Callow, *Food And Health*, 3rd ed., Oxford, Clarendon Press, 1946, p. b.

[5]K. B. Mickey, *Health from the ground up*, Chicago, International Harvester Company, 1946, pp. 26-7.

[6]Ibid.

[7]E. W. H. Cruickshank, *Food and Nutrition – The Physiological Bases of Human Nutrition*, 1st ed., Baltimore, The Williams & Wilkins Company, 1946, p. 11.

> It is well known that there is much starvation and malnutrition in the world. Millions of people never get enough to eat, and a much larger number, not actually hungry, do not obtain the kind of diet necessary for health. Vague knowledge that this situation exists is not enough; facts and figures are needed if the nations are to attempt to do away with famine and malnutrition.[8]

When FAO embarked on the *World Food Survey,* many of its members believed that two large steps would lead to the end of hunger: the statistical determination of food consumption and distribution, and the provision of food and technology to help needy people improve agricultural output.

Scientists on the periphery of the establishment who had a wider perspective found FAO's optimism unrealistic. One author writing on the problem of the world food situation in 1946, just prior to the *World Food Survey*, attested to the enormity of the situation and stated that "The problem [of world hunger] is far greater than a mere increased production and a better distribution of food. Its ultimate implications are political, its present basis is the science of nutrition."[9] Well aware of the change in direction and intensity of winds in the international community, this author proclaimed that international agencies would be essential for solving global hunger problems. Hunger problems in the industrialized nations would be, and had been, solved merely by consumers taking scientific advice to heart. Unfortunately, he remarked, non-English speaking countries with their utterly deficient diets posed the greatest impediments to ending hunger.[10]

Before the *World Food Survey*, international health workers had few ideas about how to improve the situation. After the survey, the world food picture looked bleaker than previously imagined. According to the imprecise findings, more than half the world's population had a caloric intake below 2250 calories per day. Furthermore, in regions with average intakes of about 2250 calories, there were clearly large population sectors which were also malnourished. "Averages", the survey team wrote, "do not tell the whole story."[11] While the survey articulated the breadth of hunger innovatively, the underlying strategy for ending hunger was a weak and confusing thread throughout the document. For example, the survey definitively stated that hunger was consistently an indicator of poverty but asserted that the essential step for

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[8]*World Food Survey*, FAO, Washington, D.C., 5 July 1946, p. 5.

[9]Cruickshank, op. cit., note 7 above, p. 11.

[10]Ibid., p. 12.

[11]*World Food Survey*, op. cit., note 8 above, pp. 6-7.

hunger eradication was to set nutrition targets based on survey information. Thus, the most pressing need was not to raise economic standards, but rather, to determine the agricultural supply missing from developing countries and provide it through exports along with expanded local production.[12] This notion, however, was agreed to be flawed. In a FAO Conference report, the Marketing Committee stated that it would be "hypocritical" to bemoan restrictions on agricultural production while malnutrition remained prevalent, and equally hypocritical to encourage greater agricultural output from farmers without sufficient demand. The purpose of making substantial headway quickly in the relief of hunger and malnutrition was to "establish confidence" in the organization.[13] There was taciturn recognition that improvements were forthcoming in the industrialized nations. In addition to surveys, FAO believed that the revival and formation of national nutrition organizations could do much toward ushering in nutritional improvements in many countries, mostly European ones.[14]

It was against the foreboding, staggering backdrop of global malnutrition that Orr's *Proposals for a World Food Board* was said to be the FAO response to the *World Food Survey*. The two reports were actually published together. The proposals for a World Food Board rested on the notion that the current methods of commerce in food were not designed with the best nutritional interests of the world's people in mind. The report noted, in Orrian rhetoric:

> food is more than a trade commodity; it is an essential of life, and the provision of food for the people should not be dependent upon the success or failure of measures promoted solely in the interest of trade...trade should be considered as the means of bringing sufficient food and other necessities for a full life within the reach of the people.[15]

The proposal asserted that from a policy perspective, the fundamental goal should be the provision of food to all people. With FAO's new knowledge of international food inadequacies, aid which targeted increases in food production through fertilizer, and industrial and agricultural improvements, would eventually overcome the problems.[16] The basic philosophy behind such efforts was that nations could not rely on "charity"

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[12]Ibid., pp. 19, 24, 25.

[13]*Report of the First Session of the Conference*, in Quebec City, October 16-November 1, 1945, Washington, D.C., FAO, 1946, pp. 5-6.

[14]Ibid., pp. 7, 19.

[15]*Proposals for a World Food Board*, Washington, D.C., FAO, 5 July 1946, p. 5.

[16]Ibid., pp. 5-6.

in the form of food aid for long; they had to become self-sufficient.[17] The task of the World Food Board would essentially be to look after the food supply for the population of the entire planet. The envisaged functions of the board were:

> 1. To stabilize prices of agricultural commodities on the world markets, including provision of the necessary funds for stabilizing operations.
> 2. To establish a world food reserve adequate for any emergency that might arise through failure of crops in any part of the world.
> 3. To provide funds for financing the disposal of surplus agricultural products on special terms to countries where the need for them is most urgent.
> 4. To cooperate with organizations concerned with international credits for industrial and agricultural development, and with trade and commodity policy, in order that their common ends might be more quickly and effectively achieved.[18]

Thus this new UN instrument would work in numerous ways -- from playing the international Robin Hood for food distribution to setting the price of food on the international market. The pragmatic heart of Orr's ideology was that nutrition could only be addressed properly with food, and food production therefore had to be prioritized. The approach was a testament to Orr's insistence that **something** more be done than merely studies. Orr was the type of scientist who did not demand one-hundred percent certainty about an empirical finding before launching into a programme. Reasonable certainty with righteous underpinnings was all he required for embarkation. Unfortunately for Orr, the breadth of international problems and his recommended solutions were incompatible with the abilities of his tiny Washington office staff.

During his tenure from 1945-1948, Orr focused his efforts mainly on his World Food Proposal and its call for establishing a World Food Board. In the eyes of many, he did so to the detriment of the organization. According to Ralph Phillips, a close observer of the events unfolding after FAO's establishment and the chief of the Animal Industry Branch during Orr's stewardship, Orr

> was so interested in his World Food Board that he left other things to one side including the setting up of an agricultural division, and governments were restive about where the organization was going in

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[17]Ibid., p. 7.

[18]Ibid., p. 11. For a more detailed view of this proposal see: *Report of the FAO preparatory commission on world food proposals*, Washington, D.C., FAO, February 1947.

> the agricultural field because there was a forestry division, a fisheries division, an economic and statistics division and a nutrition division all set up in those first six months following Quebec, but no agricultural [division].[19]

Orr's insistence on his plan, while not evoking "ill feeling" did create widespread "uncertainty".[20] Funding and personnel were plainly not sufficient to approach an international problem which involved the population of the planet.

Within FAO, the staff was torn between Orr's idealism and more practical science. Wallace Aykroyd, a prominent British nutritionist with impressive credentials from the HOLN, became the first director of FAO's Nutrition Division in July 1946.[21] Phillips explained that after a "small and rather slow start" the Nutrition Division "was interested more in the technical aspects of mineral requirements, carbohydrate [and] protein requirements" while the Economics Division was pushing the World Food Board. From correspondence and documentation, however, it is clear that Aykroyd began to craft an intelligent platform for FAO nutrition plans from an early stage and, indeed, was interested in the World Food Board. Aykroyd believed that central to a food policy was increased understanding of the nutrition problems facing the better part of humankind. In his opinion, the World Food Board would stabilize world food prices, and, with the aid of FAO, expand production. The result, Aykroyd hoped, would be a major step in the fight against hunger; Aykroyd had already concluded based on the results of the *World Food Survey* that "there is much under-nutrition in the world as a whole and that more food is required." (emphasis his)[22]

While Aykroyd supported Director-General Orr and was interested in expanding food production, his primary interest rested in nutrition research and "practical nutrition programs".[23] In his view, "nutrition research has not yet reached finality: scientific discoveries may be made which affect food policy in general and in many countries satisfactory information about the nutritional situation is still

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[19]Ralph W. Phillips, interview, 8 September 1995.

[20]Ibid.

[21]Hardy has written an interesting account of Aykroyd's early work. See: Anne Hardy, 'Beriberi, Vitamin B1 and World Food Policy', *Medical History*, 1995, 39, 61-77, on pp. 63-66.

[22]Wallace R. Aykroyd, 'Nutrition and poverty - a brief world survey', October 1946, FAO Archives, 57.1D1, p. 2. Aykroyd nevertheless acknowledged that a general rise in socio-economic conditions, not simply increased food production, was the key to solving nutrition problems. He stated, "under- and malnutrition can be eliminated only by the creation of world prosperity." (p. 4)

[23]Ibid., p. 3.

lacking."[24] His broad knowledge of nutrition in developing countries provided him with key insights into how, and where, to embark on nutrition activities. Aykroyd believed that one of the first places to begin surveying the state of nutrition and catalysing supplementary food programmes was in Central America. Due to Central America's nutrition problems and its proximity to Washington (Aykroyd remarked that the air journey required less than twenty-four hours), Aykroyd began constructing plans which included encouraging the formation of a nutrition research centre and sending appropriate experts and technicians to advise programmes.[25] Later, while considering a proposal for nutrition training of staff from developing countries, Aykroyd noted that nutrition training in developed countries differed starkly from what was useful in "under-developed and mal-nourished" countries: "it is my experience that non-medical workers, who have taken a nutrition course in a well-fed country with a high standard of living, are at first quite at sea, and even after adjustment are of limited usefulness because of their lack of medical background."[26] Highlighting the dearth of appropriate nutrition training, Aykroyd further noted, "There is at present no fully satisfactory course in nutrition concerned with the problems of under-developed countries, anywhere in the world, though Platt appears to be moving in the right direction in connection with his colonial nutrition programme."[27] Although his influence may initially have been shadowed by larger developments in nutrition in Europe, Aykroyd foresaw the need to focus nutrition efforts, including training, toward developing countries. Given the embryonic state of nutrition in the UN, Aykroyd was truly the first nutritionist to begin steering nutritional concerns toward developing countries and to develop the nutrition policies that would rapidly become familiar at WHO and Unicef. Aykroyd's staff well reflected these desires. Dr. A. G.

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[24]W. R. Aykroyd, 'In the field of nutrition', 13 February 1946, FAO Archives, 57.1D1, p. 2. In this document, Aykroyd also presciently commented that FAO and WHO (still unestablished) would have their closest contact over nutrition issues and should therefore plan for "the machinery necessary for ensuring coordination." Furthermore, given the anticipated overlap between the two nutrition divisions, he concluded that "WHO and FAO should work in such close association [on nutrition] that for practical purposes, if not on paper, the nutrition sections or divisions of each form a single section." (p. 4) Considering the future conflicts over nutrition at these two agencies, Aykroyd's early attempts to avoid problems were profound. See also: W. R. Aykroyd, 'Points of contact between FAO & IHO [International Health Organization]', 15 February 1946, FAO Archives, 57.1D1.

[25]W. R. Aykroyd, 'A nutrition program for Central America', 3 December 1946, FAO Archives, 57.1D1. In this document, Aykroyd employed the term "applied nutrition" to refer to school feeding programmes and other endeavours. One decade later, the term would be recycled and placed at the centre of UN nutrition policies.

[26]W. R. Aykroyd, 'note on Dr. Clements' letter of March 7th 1946 to Mr. McDougall', 25 March 1946, FAO Archives, RG 57.1, series D1.

[27]Ibid.

van Veen, who joined FAO's nutrition staff in 1947, stated in the same year that "the nutrition problems in the Far East, their study and the possible ways to their solution are of much more fundamental importance than the more short-term problems in Europe at the moment."[28]

In spite of Aykroyd's ideas about nutrition in developing countries, the bulk of FAO's interest during this time was on food. For example, Phillips asserted that early in 1946, the pertinent conflict "was between whether we worked on food production or on the World Food Board and governments."[29] Since Orr could scarcely rally his own government to support him, disappointment was inevitable. Phillips believed that Orr was

> ahead of his time in the sense that he wanted to get things done that governments weren't ready to do on an international scale. They wanted to make their own arrangements for food supplies and this sort of thing. [I saw him as] idealistic and unrealistic in the sense that he wasn't a good administrator, he didn't use his staff effectively.[30]

To elucidate Orr's eccentric and ineffective style, Phillips cited a committee meeting at which a French staff member uncharacteristically presented his report in English without the help of an interpreter. Orr doodled during the ten-minute report and ignored the speaker's words, then asked for an English translation.[31] This incident was emblematic of the broader manner in which Orr failed to listen closely to associates and follow through with tasks methodically. Phillips observed how Orr time and again sought the approval of the FAO Council for projects and then World Bank funding for implementation. The World Bank, however, always cited the need for engineers and scientists to evaluate such projects and work through them. This reluctance on the part of the World Bank and the associated failure of Orr's ideas "broke Sir John's heart".[32]

Orr's management style may not have sat well with the staff, perhaps because he expected unrealistic undertakings of them. In the spring of 1947, according to staff in FAO's Nutrition Division, Orr "came in and threw some sort of an atomic

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[28]A. G. van Veen, letter to Dr. Lucius Nicholls (nutritional adviser to the Special Commissioner for South East Asia), 28 April 1947, FAO Archives, 57.3A3.

[29]Ralph W. Phillips, interview, 8 September 1995.

[30]Ibid.

[31]Ibid. See also: Ralph W. Phillips, *The World Was My Barnyard*, Parsons, West Virginia, McClain Printing Company, 1984, p. 133.

[32]Ralph W. Phillips, interview, 8 September 1995.

bomb...Sir John told us that from now on every division of FAO would have to produce 'real hard stuff' and that we should have to follow only practical issues from now on."[33] Of particular concern to Orr at the time was an accurate assessment of nutrition in Europe, Latin America, and the Middle East. For the division, the assignment was an intimidating task and was further exacerbated by a tightened budget. In the view of Orr at the time, "Most of the ideals of Hot Springs have gone and the tides are against the United Nations now."[34]

Orr's World Food Plan failed, and he left FAO discouraged by the defeat.[35] Marcel Autret, a French scientist with over a decade of experience in South East Asia, joined FAO's Nutrition Division in 1949.[36] He felt that pessimism permeated views on Orr's plans: "The World Food Plan struck people as being an illusion. At the time I arrived we were not speaking about it, it was too pretentious considering our little budget".[37] Little, if anything, good would be said of the plan later; in 1950, Aykroyd confidentially noted with resentment that the ideal of a "World Food Board" had resulted in a number of "unsatisfactory" staff members in the Nutrition Division.[38] Orr's intention has been viewed largely as a bout of naiveté, and the impact of his failure as a blip in international health policy-making. Far from insignificant, however, it was emblematic of the low regard governments would have for dealing with persistent, chronic hunger problems in a dramatic manner. Through a historical lens, it is clear that Orr's departure from FAO signified a comprehensive change in ideology which will become apparent in this and following chapters. The nutritional and organizational reins Orr held during his fleeting two years were passed to those less nutritionally-inclined and less idealistically inspired.

Enter WHO and Unicef

Very early in the life of FAO, its leadership recognized that other organizations would help shoulder the immense responsibilities which had already been adopted.

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[33]Miss Chatfield, notes on meeting 1 April 1947, in A. G. van Veen, letter to W. R. Aykroyd, 2 April 1947, FAO Archives, 57.3A4.

[34]Ibid.

[35]J. B. Orr, *As I Recall*, London, Macgibbon and Kee, 1966, pp. 191-201.

[36]Most of Autret's international experience hailed from his work with the Pasteur Institute. Marcel Autret, interview, 14 April 1996.

[37]Ibid.

[38]W. R. Aykroyd, 'Notes by the Director of the Nutrition Division', 7 March 1950, FAO Archives, 57.1D1, p. 2.

The first session of the FAO Conference encouraged collaboration with United Nations Educational, Scientific and Cultural Organization (UNESCO) and International Labour Organization (ILO).[39] The Conference also anticipated the creation of a UN health organization (soon-to-be WHO) and looked forward to co-operation, particularly on nutritional matters.[40]

In the same way that FAO and its predecessor, the HOLN, originally initiated work that dealt mainly with hunger limited to war-struck or industrialized areas, WHO and Unicef did the same. Unicef, first called the UN International Children's Emergency Fund, grew directly out of the United Nations Relief and Rehabilitation Agency (UNRRA), one of the most popular and successful early UN agencies. "Auntie UNRRA" as Donald Sabin, an early enthusiastic UNRRA worker, had called it in a poem, was celebrated in Poland where it had provided tremendous supplies to stave off disease and hunger. As UNRRA left Poland in mid-1947, Sabin wrote:

> So out of the spirit of UNRRA,
> Comes a guide that is simple and clear,
> Peoples must truly work together,
> To really banish fear![41]

UNRRA's success had been so extraordinary and the remaining European hunger problems so overwhelming, that the UN created Unicef on 11 December 1946. From its inception, Unicef appealed to UN member governments for its financial sustenance.[42] The Unicef leadership conceived of its work as aid for the thirty million malnourished children in Europe through "foodstuffs, clothing, medicines, and the necessary technical services...in war-torn countries".[43] Unicef estimated that the incredible sum of $450,000,000 would be needed in order to conduct a minimalist programme of providing clothing and food aid to infants and nursing mothers.[44] Poor conditions in Europe unfavourably mixed with a bleak UN financial outlook meant that aid to the developing world would be inconceivable to Unicef, especially given the temporary and urgent nature of its work. In fact, Unicef was originally established for

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[39]*Report of the First Session of the Conference*, op. cit., note 13 above, p. 20.

[40]Ibid., p. 7.

[41]Donald R. Sabin, 'Auntie UNRRA', 28 June 1947, Unicef Archives, Sabin papers.

[42]For a compelling and vivid account of Unicef's formation, see: Maggie Black, *The Children and The Nations: The Story of Unicef*, Hong Kong, Unicef, 1986.

[43]International Children's Emergency Fund, 23 January 1947, Unicef Archives, Sabin papers.

[44]Ibid.

a five-year tenure, after which time it was expected to shut down its operations permanently. Thus, long-term problems would not be addressed for years to come.

The uncertain fog that clouded the establishment of Unicef caused the organization tremendous hardships and frustrations during its first years and limited its scope of work to Europe.[45] Soon after its formation, its coffers were virtually empty and the first Executive Director, Maurice Pate, went to Washington, set up an office with his own funds, and began knocking on governments doors, begging for funding.[46] During W.W.I Pate was a young man and received experience in relief operations while working for Herbert Hoover's relief agency in Europe. Later, he spent a dozen years working in business and as an investment banker. During W.W.II, he returned to work for Hoover, this time running an Allied prisoner food relief programme, and his work there helped advance him for the top position at Unicef.[47]

The majority of Unicef's initial funds went toward milk conservation programmes that had been recommended by FAO and were a continuation of UNRRA policies.[48] Maggie Black summed up the importance of milk when she wrote: "the instinctive reaction to the problem of the hungry or malnourished child took one exclusive form: milk."[49] Although during Unicef's first few years Pate was in charge of distributing nearly as much funding as the entire UN had required, there were calls to simplify the international aid system and to terminate Unicef. Even Aykroyd at FAO doubted that Unicef could continue to collect sufficient funds for operation and believed the whole idea of Unicef's perpetuation was "open to question."[50] Nevertheless, Aykroyd perceived a silver lining in the perpetuation of Unicef: "FAO could make good use of a share in the proceeds [of Unicef], which would enable it...to undertake other projects concerned with child nutrition."[51] Thus, from an early stage, Unicef was viewed as a potential source for boosting the nutrition budget at FAO.

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[45]*Maurice Pate, Unicef Executive Director, 1947-1965*, New York, Unicef, Unicef History Series, monograph XIII, 1989, p. 5.

[46]E. J. R. Heyward, interview, 5 May 1995.

[47]*Maurice Pate, Unicef Executive Director, 1947-1965*, op. cit., note 45 above, pp. 15-19.

[48]W. R. Aykroyd, 'FAO', *The Commonwealth Bureau of Animal Nutrition, Nutrition Abstracts And Reviews*, 1953, 23(2), pp. 229-43, on p. 237.

[49]Black, op. cit., note 42 above, p. 141.

[50]W. R. Aykroyd, memo to FAO acting Director-General on United Nations Appeal for Children, 14 October 1948, FAO Archives, 57.1C1.

[51]Ibid. Aykroyd identified three areas where FAO could, with Unicef funds, provide assistance: 1)technical assistance in countries Unicef planned to begin operations, 2)assistance in the development of milk-drying industries, and 3)establishment of pilot child feeding programmes.

Pate fought hard for Unicef's existence, against a grain that included FAO's leadership. In a confidential letter to Norris Dodd, the FAO Director-General, Pate touched on his concern about the current of opinion against Unicef during 1950. Implying that FAO might somehow attempt to subsume Unicef, Pate wrote,

> I am quite in accord with the idea of simplification in the organization of International agencies. The long-term answer might be the integration of all United Nations agencies into a single body. However, unless and until this takes place, any decision with respect ot [sic] the United Nations International Children's Fund should not be based on purely mechanical considerations. **Any body which takes an active position toward the termination of the Fund, should be equally ready to take over the responsibility which this step entails and give assurance in advance of its ability to fulfill this responsibility.** (emphasis mine)[52]

In conclusion, Pate pointed out the impending shift of Unicef policy away from emergency operations and toward "attacking the fringe of the age-old problems of the needs of children [in underdeveloped countries]."[53] Pate further remarked on the high quality of interactions between FAO's Nutrition Division and Unicef and warned that "any change in our present form of cooperation would be given most careful consideration."[54]

Unicef's problems were mounting on a number of ideological and practical fronts. A. J. Wakefield, the resident representative of the Secretary-General to the UN, was based in Haiti where the dire state of malnutrition had encouraged Unicef to immediately embark on feeding projects.[55] In a confidential letter to the chief of the UN's technical assistance section, Wakefield expressed his exasperation over the Unicef representative's "eagerness for 'improving nutrition' and for 'the establishment of a nutrition service', which in local medical as well as high political circles spell the importation and distribution of free food by Unicef."[56] In his communications with other UN personnel, Wakefield shared his views discreetly because "The man who

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[52]Maurice Pate, letter to Norris E. Dodd. Washington, D.C., 13 May 1950, UN Archives, CF9D 79, folder A023, Heyward files, p. 2.

[53]Ibid., p. 3.

[54]Ibid.

[55]A. J. Wakefield, letter to David Hunter (Unicef), Port-au-Prince, Haiti, 6 July 1950, FAO Archives, 57.1 B2.

[56]A. J. Wakefield, letter to Gordon Menzies, Port-au-Prince, Haiti, 25 July 1950, FAO Archives, 57.1 B2. Wakefield sent a copy of this letter to Aykroyd in the hopes of rallying his support against food distribution projects.

becomes known as having endeavoured to restrict the visible and popular aid advertised as available from Unicef, would not get very far with proposals aimed at the basic causes of nutriton [sic], or any other problem."[57] Wakefield therefore sought surreptitiously to inject FAO's technical personnel into the issue, with the hope that they would alter Unicef's plans. The basis for Wakefield's concern was that Unicef was applying relief measures used after catastrophes to chronic hunger and malnutrition problems. With some technical assistance from nutrition experts, it was hoped Unicef would be enlightened.[58]

Unicef's leadership may have been distracted from technical concerns by festering administrative and financial difficulties. After Unicef received a temporary extension in 1950 for its existence, Donald Sabin, the chief of milk conservation, was overwhelmed by the concomitant continuing uncertainty. In December, he received a letter from one of his utterly frustrated engineers in Paris, W. F. Richards, who had heard that further salary reductions could be forthcoming. Richards bemoaned the already low salary he received and wrote,

> Frankly, had it been for salary that I joined [Unicef] I would have never joined. I can get a far larger salary in the U.S....Years ago I learned one lesson and that was no matter how far you were away from home, always keep enough money in your pocket to get home. If the adjustment is not satisfactory to me, there will be no argument on my part, I will give you 30 days notice, and return to the States. I have enjoyed my work and the Unicef programme.[59]

In a letter to Unicef headquarters that reflected Richards' concerns, Sabin wrote of the handicap incurred by having only temporary staff and recommended

> that we [Unicef] take advantage of Unicef's new lease of life and offer term contracts to those individuals whose services we can envision as being required for a reasonable period in the future...I cannot be certain that they will accept such contract [sic] but I feel it will ease the burdens of this office greatly and will permit some long range planning to be done...I am sure you must be as sick as I am of this continual uncertainty as to availability of staff and unfortunately as we are all well aware, it takes several months for a man to get sufficiently acquainted with our programme to be of much value to us. Then if he only stays a year or two we can consider we have lost heavily by failure to secure

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[57]Ibid.

[58]Wakefield, op. cit., note 55 above.

[59]W. F. Richards, letter to Donald R. Sabin, Paris, 6 December 1950, Unicef Archives, Sabin papers.

> the maximum services which we have a right to expect from technical people.[60]

Such overwhelming managerial, financial, and programmatic setbacks long delayed Unicef's foray into nutritional concerns in the developing countries.

At the height of Unicef's assistance in Europe during the spring of 1950, its programmes were reaching six million mothers and children. These food supplementation programmes were viewed as long term measures insofar as they promoted governmental cognizance of the value of protective foods "as a basic means of building stronger and more disease-resistant populations."[61] With the return of normalcy and stability in Europe, the nature of Unicef assistance rapidly changed. Rhetorically, Unicef stated that it had shifted its central interest around work in developing countries beginning in 1951,[62] statistically, Unicef allocated the smallest percentage of its budget during its first decade to nutritional work, particularly in the developing world. From 1947 to 1959 child nutrition represented only 10% of Unicef's entire budget, mainly due to expenditures in the late 1950s. In contrast, child health services and mass campaigns against infectious diseases represented 42.1% of the budget. Nearly the majority of Unicef's spending, 47.9% during those twelve years, was allocated for emergency relief, mainly in Europe.[63] As a result, Unicef's operations through the 1950s will be de-emphasized in this chapter, not to reflect a bias, but rather, a historical reality. The figures themselves reflect Unicef's institutional priorities -- primarily saving children's lives -- as well as the low regard for nutrition programmes at that time. Malarial eradication programmes that tangibly saved children's lives garnered more attention than community-based nutrition programmes that gradually changed poor food habits and might ultimately lead to improved child survival. Martha M. Eliot, the U.S. representative on the Executive Board of Unicef, lobbied strongly in 1952 and 1953 for a permanent extension on Unicef's existence. In a speech given before a Congressional committee, Eliot noted that Unicef's emphasis had shifted drastically toward long-range programmes. The majority of her examples included milk conservation and distribution programmes that

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[60]D. R. Sabin, letter to Mr. Karl Borders, 14 December 1950, Unicef Archives, Sabin papers.

[61]'Unicef assisted feeding programmes', 1952 or 1953, Unicef Archives, PR-NU-001, p. 1.

[62]'Unicef assistance for children', in 'The nutritional work of FAO, WHO and Unicef', *Proceedings of the Nutrition Society*, 1956, 15(1), 1-40, on p. 24.

[63]Burhan Ilercil, 'Unicef Programme Statistics 1947-1979', New York, November 1985, Unicef Archives, Unicef History Project, CF/HIST/IC-85-3, HIST 40 Series, pp. 40/1.

had widened community interest in nutrition in underdeveloped countries.[64] While most of Unicef's work had been in milk distribution, Unicef's own reports suggested that the impact of such projects was minimal. A report to the Executive Board in 1952 regarding Unicef's feeding programmes in Asia pessimistically reported that given Unicef's moderate funds and the huge quantity of children needing assistance, "Unicef could not hope to make a significant contribution by attempting mass supplementary child feeding programmes."[65] While the Board was slow in recognizing the truth of such findings, politically it was expedient to push the image of successful milk feeding. Thus Eliot's efforts, along with other members of the Executive Board, ensured Unicef's continuation. Few in government or at the UN questioned the nature of Unicef programmes: development was still very much in its infancy.

Since 1946, the UN had had an interim world health commission that had many functions, particularly epidemiological surveillance.[66] The UN created WHO, like FAO, as an official, permanent UN specialized organization. WHO inherited specific responsibilities of the Office International d'Hygiène Publique, the HOLN, and the Health Division of UNRRA. The UN envisaged WHO as the international agency that was to deal with all health concerns and officially established it on 1 September 1948.[67] Its initial attention was directed at coping with epidemics in Europe, and it did not establish its Nutrition Section until May 1949.[68] WHO appointed Frank Clements, an Australian doctor, to be the first chief of the Nutrition Section. Clements had conducted nutrition surveys in Papua New Guinea where he had realized that children were dying of diseases exacerbated by malnutrition.[69] At first, WHO's leadership was weary of Unicef's presence, particularly of the chairman of its Executive Board,

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[64]Martha M. Eliot, 'Statement by Dr. Martha M. Eliot', Washington, D.C., 1952, Unicef Archives, 88R025, Box T-006, Teply files.

[65]'Experience with Unicef-Assisted Feeding Programmes in Asia', New York, 3 April 1952, E/ICEF/191.

[66]Ritchie Calder, *Ten Steps Forward: World Health 1948-1958*, Geneva, WHO Division of Public Information, 1957, p. 5.

[67]FAO and WHO were officially specialized agencies and had considerable autonomy since their budgets were figured independently. Unicef, on the other hand, was considered to be part of the UN itself and therefore was allocated funds from within the UN budget. See: P. Dorolle, 'International co-operative activities in the field of nutrition: an introductory statement', in 'The nutritional work of FAO, WHO and Unicef', *Proceedings of the Nutrition Society*, 15(1), pp. 1-40, on p. 2. Even before WHO's official establishment, it was known as WHO. In 1947, Orr commented that WHO's nutrition efforts were two to three years behind FAO's. Miss Chatfield, notes on meeting 1 April 1947, in A. G. van Veen, letter to W. R. Aykroyd, 2 April 1947, FAO Archives, 57.3A4.

[68]*Yearbook of the United Nations, 1948-49*, Department of Public Information, United Nations, Lake Success, New York, 1950, p. 1038.

[69]Robert Burgess, interview, 12 July 1996.

Rajchmann. Rajchmann had been strongly favoured for the position of WHO Director-General and since he was not chosen, WHO feared that he would have Unicef subsume WHO responsibilities and rival WHO. This created an atmosphere of tension that lasted throughout Rajchmann's five-year tenure as chairman.[70]

The early history of WHO, FAO, and Unicef reveals that these organizations, racked by the legacy of the war, were not prepared to direct attention and aid to hunger in the developing countries. As the Marshall Plan morbidly pronounced, Europe was in disastrous condition economically and physically. Three years after the war, FAO released a survey on the world food situation which led it to state that only recently had nations recognized that world-wide shortages of agricultural supplies were more than a "short-term" phenomenon.[71] Thus, all resources had to be directed toward the people in need in Europe who had been assaulted by the war. FAO, however, took an early and unusual interest in hunger in the developing countries and rapidly made important observations there. Up to 1948, there were only a trifling number of projects to improve nutrition in the developing world -- some supplementary food programmes in Egypt and early discussion with the ministries of health in Ethiopia.[72] Although a few bureaucrats from within these agencies called for wider exploration of hunger in the developing countries, for the most part such work was left to the new researchers exploring these problems with an intensity heretofore unknown. While the researchers often had some contact with the new UN health agencies, their exposure tended to be limited. Their ties to universities and governments were stronger. In 1950 FAO initiated the Expanded Technical Assistance Program (ETAP) which, as its name suggests, sought to provide technical expertise in the field to countries requesting such aid.[73] ETAP enabled FAO's Nutrition Division to provide substantive aid centred in developing countries and to vastly expand the Nutrition Division's funding.

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[70]E. J. R. Heyward, interviews, 5 May 1995 and 12 September 1995. In 1965, Heyward wrote that Dr. Ludwik Rajchman "gave strong leadership to the Board, and Unicef took the initiative in deciding how to use its funds. Unfortunately, he had bad relations with WHO. On his departure it was necessary to 'mend fences'". E. J. R. Heyward, 'Notes on history of Unicef "policy"', 17 March 1965, Unicef Archives, CF/HST/1985/034/Anac 03/11, p. 3.

[71]*The State of Food and Agriculture-1948*, Washington, D.C., FAO, 1948, pp. 1-3.

[72]Ibid., p. 62.

[73]W. R. Aykroyd, 'FAO and nutrition', in 'The nutritional work of FAO, WHO and Unicef', *Proceedings of the Nutrition Society*, 1956, 15(1), 1-40, on pp. 4-5.

Researchers Arrive in the Developing World

Remarkably few researchers had any extended field experience in the developing world before W.W.II. Those who did, such as Aykroyd, Burnet, and B. S. Platt broke new and fertile ground for their peers, students, and successors. Aykroyd, who had conducted a superb study of beriberi during the 1920s in Newfoundland, had extensive experience with colonial malnutrition most prominently shown in the aforementioned HOLN report, 'Nutrition and public health'.[74] Platt, a British nutrition expert with extensive experience in beriberi in China, directed the MRC's Human Nutrition Research Unit, attended the Hot Springs Conference, and inspired a number of young physicians to devote their careers to nutritional issues.[75] One such student was John Conrad Waterlow of Britain, who received his MD in 1942 and began nutritional work in Guyana, Trinidad, and Jamaica, with the Colonial Office during May 1945.[76]

Waterlow attributed his roots in nutrition to Platt's insistence that nutritional issues would be the central international problem after the war. In Waterlow's eyes, the 1939 publication of *Nutrition in the Colonial Empire* had cast light on a previously inconceivable world of misery and scientific opportunity.[77] The war itself had produced a number of nutritional problems in populations unaccustomed to acute and prevalent malnutrition. During a nutritional survey in 1946, Platt had observed a form of malnutrition in the British West Indies that had not been previously identified in Great Britain. Following Platt's observations, Waterlow noted a corresponding relationship between decreased food supplies -- promoted by the torpedoing of many of the freight ships carrying essential imported food -- and a rising number of children with gross oedema and massive hepatomegaly who were dying.[78] Working with a skeleton crew, Waterlow investigated these patients, and hesitantly biopsied the livers with a large veterinary needle. Much to his surprise, he found that the livers were loaded with fat, leading to his coining the term "fatty liver disease". Moreover, he concluded that the disease was certainly brought on by a protein deficiency, possibly

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[74]For an enlightening description of Aykroyd's role in beriberi policy and science, see: Hardy, op. cit., note 21 above, pp. 64-66.

[75]J. C. Waterlow, interview, 7 June 1995.

[76]Waterlow, op. cit., note 2 above, p. 2.

[77]J. C. Waterlow, interview, 7 June 1995.

[78]Waterlow, op. cit., note 2 above, pp. 2, 3.

concomitant with carbohydrate overfeeding.[79] It is a testament to the virgin and disconnected nature of the field of nutrition that only after returning to Britain did Waterlow realize that his patients closely resembled those which Williams had described as suffering from kwashiorkor in 1933.[80] Nevertheless, in his publication he hesitated definitively calling his finding kwashiorkor, and instead employed the term fatty liver disease. Waterlow's findings were hugely important for policy makers, scientists, and institutions. On one hand, he had uncovered or essentially rediscovered, a disease thought to be very common in the developing countries. On the other, by working in a developing country and making this breakthrough, his research highlighted the advances scientists could make by studying malnutrition problems at their source. The MRC preface to Waterlow's magnum opus celebrated the importance of Waterlow's work for its scientific content and for highlighting "the advantages, at least for work in colonial areas, of an arrangement whereby the investigating field worker is based on a well-provided, permanent research organization".[81] The anonymity in which kwashiorkor had flourished would soon disappear with the increased interest in the new science of nutrition.

Nevin S. Scrimshaw, then a promising young MD at the University of Rochester, asserted that, as far as a person interested in nutrition was concerned in the 1940s in the U.S., role models were sparse. He believed "there was McCollum, Philip Jeans, the pediatrician in Iowa, Emmet Holt in New York, and just a little later Grace Goldsmith at Tulane, and a generation earlier it had been Goldberger; none of these people had any international experience or interest in contrast to the British". These physicians, however, provided a target for Scrimshaw's motivation to work in uncharted yet discouraged medical areas. Thus, Scrimshaw related, "when I in 1949 went down to Guatemala [to work on nutrition], both my professors at Rochester told me frankly that I was throwing my life away".[82] In the eyes of his mentors, it would have been irresponsible for Scrimshaw to dedicate his brilliant mind to nutrition in the developing countries. He persevered and in Guatemala founded INCAP (the Institute of Nutrition for Central America and Panama), among the first institutes in the developing world dedicated to investigating nutritional issues. His work there quickly drew the attention of FAO and WHO administrators. After a conference in Rio de

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[79]J. C. Waterlow, *Fatty Liver Disease in Infants in the British West Indies*, London, HMSO, 1948, p. 76.

[80]J. C. Waterlow, interview, 7 June 1995.

[81]Waterlow, op. cit., note 79 above, p. A2.

[82]Nevin S. Scrimshaw, interview, 26 July 1995.

Janeiro attended by Scrimshaw, Aykroyd wrote the following comment to Emma Reh, an FAO technical expert at INCAP: "[Dr. Scrimshaw] is of a thrusting northern type and does not find it easy to adapt himself to the more dilatory methods of other regions...It may be that he is pushing ahead rather too fast with the INCAP program and trying to obtain results in too short a time. This is, however, better than the opposite procedure."[83] From this time onwards Scrimshaw remained among the most prominent nutritionists in international health, and he will therefore be mentioned frequently throughout the following chapters.

The Brock-Autret Report: Kwashiorkor Rediscovered

The 1949 Joint FAO/WHO Expert Committee on Nutrition had a hunch that a study of kwashiorkor could lead to revelations about the prevalence of the disease in Africa. As understanding of the natural history of the disease was deficient, policy implications were shrouded in ignorance. The study that the Expert Committee mandated set a focus for nutritional research on hunger that had clinically-identifiable symptoms.[84] The gross symptoms of oedema, dyspigmentation of skin, and fatty liver had stunned doctors and peaked their interest. Although WHO had been the original designate for research, FAO expressed its desire to move into this rich scientific territory too. Thus, WHO appointed J. F. Brock of the University of Cape Town to conduct the research with Marcel Autret of FAO's Nutrition Division. They were given the two-month task of searching out the horrific symptoms of kwashiorkor along swaths of South Africa, Kenya, Uganda, Rwanda-Urundi, Belgian Congo, French Equatorial Africa, Nigeria, the Gold Coast, Liberia, Gambia, and Senegal. Autret arrived in Kampala late in October 1950, and Brock conveyed his thanks to Aykroyd for having wisely chosen a "pleasant and useful travelling companion."[85] Enthusiasm

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[83]W. R. Aykroyd, letter to Emma Reh, 28 June 1950, FAO Archives, 57.1A5. The prolific correspondence between Reh and Aykroyd reveals the difficulties that the UN's first technical experts faced in the field. Further, their personal commentary on the character of their peers conveys the importance of interpersonal relations and is fascinating in its own right. As Reh left Scrimshaw in 1951, she found him better equipped to face the problems ahead: "Dr. Scrimshaw has realized many things he did not know before, and he seems perfectly willing to adapt. Like anyone else, it takes him a long time to change his mind, but finally he does." Emma Reh, letter to W. R. Aykroyd, 16 June 1951, FAO Archives, 57.0A1.

[84]*Joint FAO/WHO Expert Committee On Nutrition, Report on the First Session, Geneva 24-28 October 1949*. Geneva, WHO, 1950, p. 15.

[85]J. F. Brock, letter to W. R. Aykroyd, Kampala, 29 October 1950, FAO Archives, 57.1 B2. Brock brought "a queer hitch" to Aykroyd's attention in this letter. Two conflicting reports about conducting their research in Gambia had led Autret to surmise that Platt was obstructing them. I came across no evidence for this assertion. Whatever the matter was, Brock and Autret did visit the territory.

for kwashiorkor was heightened before Brock and Autret even completed their field study. Aykroyd in November 1950 reported to the Unicef Executive Board that they would probably be interested to learn more "about a formidable disease due to protein deficiency, called by a variety of names, which affects young children after the period of weaning in many parts of the world."[86]

The Brock-Autret report identified cases of kwashiorkor in every nation visited. Further, it elucidated the major symptoms of the disease, reviewed relevant literature, and discussed treatment. The main finding that kwashiorkor appeared to be triggered by a diet low in protein, usually in weaning infants, was much the same observation made by Williams nearly two decades earlier. However, the broader survey information revealed that given the low per capita availability of animal protein in every African nation, kwashiorkor and malnutrition could only be expected. As for the solution, the authors reiterated findings already made that animal protein, especially milk, and nutrition education were perhaps the most effective steps to avert kwashiorkor. According to Brock and Autret, whose survey data gave them few concrete statistics, "much" kwashiorkor resulted from poverty and "much" from the ignorance of mothers.[87] Talk of milk solutions reverberated in the ears of UN administrators, particularly at Unicef, which had been distributing dried skim milk supplies across Europe for years. At least as far as immediate policy was concerned, the most grotesque disease of malnutrition was identified and its solutions -- milk and "energetic educational measures" -- awaited in the wings.[88]

Just before FAO and WHO published the Brock-Autret report, Brock and Autret had received complicating word from Waterlow, then in the Gambia, that he had come across cases not to be regarded as kwashiorkor, "but as nearer to marasmus".[89] His comment, a footnote in the report, suggested that kwashiorkor might be on one side of the malnutritional spectrum with marasmus on the other.[90] Thus, kwashiorkor and marasmus might be pronounced symptoms of malnutrition as opposed to strictly defined diseases in their own right. The line separating the two suddenly became blurred; marasmus had traditionally been associated with caloric deficiency, kwashiorkor with protein deficiency. This initial perplexity began paving the highway for scientific misunderstanding and controversy that endured for decades.

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[86]W. R. Aykroyd, 'Statement to the Executive Board, Unicef', 28 November 1950, FAO Archives, RG 57.1 series H1, p. 1.

[87]J. F. Brock and M. Autret, *Kwashiorkor in Africa*, FAO, Rome, 1952, p. 66.

[88]Ibid., pp. 67-68.

[89]Ibid., p. 23.

[90]Ibid.

Whatever confusion persisted as to the nature of kwashiorkor encouraged research institutions to come forward with ever greater funds for institutes and surveys in the developing countries. This enthusiasm also translated into shaping the primary concerns of the UN agencies. The recommendations Brock and Autret issued at the end of their report fuelled research grants for dozens of scientists. Their findings, though simply part of a continuum of observations in Africa begun by Williams, magnetically drew researchers and policy makers concerned with hunger. The disfiguring signs of kwashiorkor and its apparently simple cure with protein, far from leading linearly to substantive programmes, provided a springboard for further, more detailed research efforts. Brock and Autret summoned WHO and FAO to rally clinical and biochemical research on the "fascinating and important" problems linked to kwashiorkor.[91] These problems included an investigation into the cause of the dermatosis seen in kwashiorkor victims and treatment by amino acids and vitamins. They implied that these were the scientific agenda whereas practical concerns included food intake data, the composition of African mothers' breastmilk, cooking methods, weaning methods, and protein sources besides milk. Although the prevalence of kwashiorkor was unestablished, Brock and Autret reported that their observations "justify emergency action".[92] UN administrators appeared eager to embrace kwashiorkor as the central problem of hunger in Africa and other poverty-stricken areas.

In one year's time, the focus of nutritional concern had radically shifted. The first Joint FAO/WHO Expert Committee on Nutrition report that dealt with severe malnutrition, published only a few months before the Brock-Autret report, made absolutely no mention of kwashiorkor, nor its symptoms, even under the heading of "primary protein deficiency".[93] The proceedings referred exclusively to disasters that might occur in the "western world", a reflection of the long-intact blinders that had led consultants and medical personnel for decades to ignore chronic persistent hunger and what was about to be the central disease related to severe malnutrition.[94]

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[91]For an excellent summary and analysis of the scientific content of the Brock-Autret report, see: Kenneth J. Carpenter, *Protein and Energy: A Study of Changing Ideas in Nutrition*, New York, Cambridge University Press, 1994, pp. 149-53.

[92]Brock and Autret, op. cit., note 87 above, p. 69.

[93]*Prevention And Treatment Of Severe Malnutrition In Times Of Disaster*, WHO Technical Report Series no. 45, Geneva, WHO, November 1951, pp. 19-20.

[94]Ibid.

Ramifications of the Brock-Autret Report

Though non-existent in the western world, kwashiorkor rapidly moved into the lexicon of international nutrition priorities. A constellation of establishments and findings closely following Brock's and Autret's observations on kwashiorkor shored up institutional commitments to unravelling the intricacies of this disease. Late in November 1951, FAO planned to have Autret return to the search for kwashiorkor, this time in Central America. WHO, not wanting to be excluded from the study, sent along Moisés Béhar of INCAP to accompany him. Scrimshaw had hand-picked Béhar for the task after Béhar had informed Scrimshaw that, in fact, he had seen the disease WHO described.[95] Béhar, a Guatemalan, found Autret to take a rather selfish view of the project as team leader, and in the end, it was Béhar who wrote up the report.[96] Their findings confirmed the existence of kwashiorkor throughout Central America.[97] Similarly, Waterlow worked as a WHO consultant with A. Vergara of the FAO Nutrition Division on the same task in Brazil in 1953.[98] Like previous surveys, the researchers were able only to establish existence, not incidence. Nevertheless, early in 1952 Unicef engaged in discussions with FAO about arranging kwashiorkor control programmes in developing countries.[99]

The *Second World Food Survey* provided rough estimates of caloric as well as protein distribution world-wide.[100] Although the third session of the joint FAO/WHO Expert Committee recognized the possibility and existence of cases of malnutrition in an intermediate stage between kwashiorkor and marasmus, it had not been expected that such cases would be significant.[101] Waterlow and Vergara, however, found numerous cases of distrofia pluricarencial (the name used for kwashiorkor in Brazil)

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[95]Moisés Béhar, interview, 29 December 1995. Scrimshaw had not yet encountered kwashiorkor. Béhar had a new and promising private paediatric practice at the time and had seen abundant cases of kwashiorkor in the hospital wards.

[96]Ibid. Autret admitted that he had been embarrassed to be assigned such a young doctor who had never before conducted a survey. Marcel Autret, interview, 14 April 1996.

[97]Marcel Autret and Moisés Béhar, *Sindrome Policarencial Infantil (Kwashiokor) and Its Prevention in Central America*, Rome, FAO, FAO Nutritional Studies no. 13, 1954.

[98]J. C. Waterlow and A. Vergara, *Protein Malnutrition in Brazil*, Rome, FAO, FAO Nutritional Studies no. 14, 1956. For study dates, which differ substantially from publication dates, see: J. C. Waterlow (ed), *Protein Malnutrition - Proceedings of a conference in Jamaica 1953, sponsored by FAO WHO and Josiah Macy Jr. Foundation, New York*, Cambridge, University Press, 1953, p. vii.

[99]Charles A. Egger (Unicef Director of European and Eastern Mediterranean Regional Office), letter to Aykroyd, 4 March 1952, FAO Archives, 57.1B2.

[100]*Second World Food Survey*, Rome, FAO, November 1952.

[101]*Joint FAO/WHO Expert Committee On Nutrition: Report on the Third Session*, Rome, FAO, FAO Nutrition Meetings Report no. 7, December 1953.

which fell in this intermediate stage and were identified by variable dermatosis and hair dyspigmentation, less cirrhosis of the liver, weight loss and oedema. In a clearer manner than past studies, the authors pinpointed the onset of kwashiorkor to weaning and associated low-protein foods. They gave credit to Unicef for providing milk to Maternal and Child Welfare clinics where death rates subsequently plummeted.[102] Unicef, the authors believed, was on the right track by distributing dried skim milk, then one of the best treatments for kwashiorkor. Protein malnutrition could be avoided, according to the authors, by increased distribution of protein-rich food to poor families.[103]

After three years working on the problem at the University of the West Indies, Waterlow motivated the MRC to found the Tropical Metabolism Research Unit at the University in 1954. From the start the Unit was largely Waterlow's domain, and focused on kwashiorkor. Contemporaneously the MRC established a similar unit in Uganda; Vis in Zaire began parallel work; Scrimshaw opened a metabolic unit in Panama; Gopalan managed the Nutrition Research Laboratories in India; and Olson transplanted his nutritional work from South Africa to Thailand.[104] Additionally, The LSHTM Human Nutrition Department began offering a six-month course in tropical nutrition in the late-1940s. The graduates of this course, who were predominantly women, took up new nutritional adviser posts in the colonial offices to conduct nutritional survey work.[105] All of these rich developments in nutritional research in the developing world ensured a steady flow of information about scientifically interesting nutritional issues, especially kwashiorkor. These institutions were largely unconcerned with policy or practicality; nevertheless, their emphasis frequently influenced the directors at FAO, WHO, and Unicef. In 1955 WHO's Nutrition Section confidently stated that "Kwashiorkor is without doubt the most important nutritional public health problem of the present time."[106] While kwashiorkor had a major impact on scientific

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[102]Waterlow and Vergara, op. cit., note 98 above, p. 21.

[103]Ibid., p. 38.

[104]Waterlow, op. cit., note 2 above, pp. 1-19. Waterlow's papers from the Tropical Metabolism Research Unit are held at the Contemporary Medical Archives Centre (CMAC) at the Wellcome Institute for the History of Medicine, London. The vast majority of his documents are exceedingly technical or deal with financial and personnel operations at the Unit.

[105]J. A. S. Ritchie, *Teaching Better Nutrition*, Washington, D.C., H. K. Press for FAO, 1950, pp. 143-44.

[106]'Outline of Nutrition Programmes in Public Health, notes on the fight against malnutrition in the field of public health', 1955, Geneva, Division of Organization of Public Health Services, Nutrition Section, document #MH/AS/32.56, LSHTM Archives, WHO reports box, p. 37.

malnutrition ventures, it arguably had more potent implications for the very conception of hunger, especially seen through the lens of UN structures.

Expert Committees

Virtually from the time the UN established WHO in 1948, administrators clearly advocated collecting advice on international health issues through the medium of expert committees that consisted of members "chosen for their abilities and technical experience".[107] The desire for technical expertise in numerous nutritional areas had a long history with the HOLN that had been resumed with FAO. Together, WHO and FAO decided that the contentious issues of nutrition deserved an expert committee of their own. Reflecting the value administrators accorded nutritional policy, less than one year after WHO's establishment, the Joint FAO/WHO Expert Committee On Nutrition was set into motion. This new committee marked the marriage of WHO and FAO nutrition work. According to Aykroyd, "In practice the Nutrition Division of FAO and the smaller Nutrition Section of WHO work together almost as a single group."[108] The first meeting, in Geneva during October 1949, marked the first inter-organizational attempt to contemplate and plunge into malnutrition and hunger in the developing world. In the first and shortest report produced by the committee, twenty-four pages covered the major nutritional issues of the day, from goitre to "kwashiorkor", to nutritional status assessment.[109] The window for such discussion had been opened by a handful of researchers including Waterlow who had made recent, relevant, intriguing findings. Among the members of the committee was one prominent woman, Dr. Hazel K. Stiebeling who in the 1930s had divided food into nutritional groups,[110] Brock of kwashiorkor fame, Terroine, a prominent French nutritionist, Sebrell, the influential director of the U.S. Public Health Service, and the newly appointed leaders of FAO's and WHO's nutrition departments, Aykroyd and Clements respectively. Importantly, this committee had no official powers over the nutritional components of WHO or FAO, rather, its role was solely as advisor to both organizations. Nevertheless, the expert committee definitely had the ear of the Directors-General of FAO and WHO, and in the case of the WHO, asked that Dr. Chisholm, WHO's Director-General, "prepare WHO programmes in nutrition,

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[107] *Joint FAO/WHO Expert Committee On Nutrition*, op. cit., note 84 above.

[108] Aykroyd, op. cit., note 48 above, p. 239.

[109] *Joint FAO/WHO Expert Committee On Nutrition*, op. cit., note 84 above.

[110] G. Hambidge, *The Story of FAO*, Princeton, D. Van Nostrand Company, Inc., 1955, p. 43.

to follow the committee's recommendations in so far as they apply."[111] This insistence draws attention to the formidable power and influence the committee had. The committee had the mighty position of offering advice that was expected to provide the focus and direction of WHO and FAO nutritional programmes.

In this first report, the committee expressed its view of the co-operative but independent functions of WHO's and FAO's nutritional agendas -- a point that was to become increasingly prominent during the early years of the committee. The committee asserted that WHO worked on nutrition issues for their impact on disease prevention and "maintenance of health" while FAO did so with nutritional emphasis on "the production, distribution, and consumption of food".[112] These apparently clear spheres of responsibility were quickly shifted as the committee went on to state that WHO sought to provide technical assistance while FAO felt that nutrition could not be categorized and that any nutritional programme would raise pertinent issues for FAO and WHO. This muddling of institutional priorities, while clouding broader ideological concerns of the two organizations, enabled the committee apparently to sequester WHO programmes from FAO's.[113] As both agencies were new, the leadership at each was wary to pass on responsibility for certain issues to the other, and nutrition provided a pie of uncertain size to divide. According to Phillips, all the experts and the leadership were aware that "WHO would have liked to have had the whole of nutrition but it was a little hard to divorce it [nutrition] from agriculture and fisheries of course".[114] Because the roles were so difficult to define, WHO and FAO conducted little nutritional work autonomously and much work in reluctant partnership. In practice the nutritional work of FAO and WHO rapidly became inextricably intertwined.

The committee evidently wanted WHO to address the medicalized aspects of nutrition, in particular, it called for studies of pellagra, "kwashiorkor", and goitre.[115] "Kwashiorkor", according to the committee, was "one of the most widespread nutritional disorders in tropical and sub-tropical areas".[116] On one hand, the tasks of cataloguing and surveying these diseases were given to WHO. FAO, on the other hand, arranged to train nutrition workers, organize nutrition courses, buttress

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[111] *Joint FAO/WHO Expert Committee On Nutrition*, op. cit., note 84 above, p. 3.

[112] Ibid., pp. 4-5.

[113] Ibid.

[114] Ralph W. Phillips, interview, 8 September 1995.

[115] The term kwashiorkor was then used to describe the associated condition only in Africans. Years later it was adopted for diagnosis world-wide. See: Brock and Autret, op. cit., note 87 above.

[116] *Joint FAO/WHO Expert Committee On Nutrition*, op. cit., note 84 above, p. 15.

nutritional research, and promote milk as a weaning food.[117] Since these assignments were agreed to by the heads of both organizations, it appeared that there was a wide gap between the work each organization was expected to conduct. Both organizations were asked, however, to expand their contacts in Africa, since every indicator pointed to widespread hunger there.[118] Unicef hardly figured into the report except for a call to continue FAO collaboration for feeding programmes in war-torn European countries as well as Greece.[119]

One year and a half later, at the second meeting of the Joint FAO/WHO Expert Committee on Nutrition, it was clear that progress had been slow. A handful of consultants had been sent off to various destinations in the developing world to assist with issues such as national nutritional policy design (Egypt), supplementary feeding schemes (Central America), and nutrition education (Thailand). This work was conducted in addition to the broader information-gathering directives of both organizations. Nevertheless, the number of consultancies was low, reflecting the tiny structural and financial nature of WHO and FAO. The expert committee consultants themselves called on FAO to further emphasize "appropriate" technical assistance that would lead to applications.[120] By the same token, in the case of WHO they recognized that while nutritional "studies are important contributions to human welfare...their most important aspect-the practical application of this knowledge-remains to be developed and should form a basis of future programmes."[121] The experts further hoped that consultants might begin addressing problems of kwashiorkor and infant feeding *where they occurred*, presumably not so much in the laboratory.[122] This air of practicality permeated other regions of the committee's recommendations. The committee stressed, for example, that although it applauded training programmes geared toward nutrition workers, "critical evaluation" ought to be applied to methodology, subject, and "practical results."[123] To the committee members, the best method for nutritional improvement in a practical manner could come from so-called applied nutrition programmes. These programmes were expected to proceed in the

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[117]Ibid., pp. 5-17.

[118]Ibid., p. 23.

[119]Ibid., p. 6. See also: *Report of the 4th Session of the Conference*, FAO, Washington, D.C., 1948, p. 44.

[120]*Joint FAO/WHO Expert Committee on Nutrition Report on the Second Session, Rome, 10-17 April 1951*, Rome, FAO, November 1951, p. 18.

[121]Ibid.

[122]Ibid.

[123]Ibid., p. 20.

following fashion. Firstly, WHO and FAO would conduct surveys of areas to determine the best route of progress. Then successful projects or "demonstration areas" would be highlighted for the people to replicate in their own communities. These demonstration areas would take account of all factors -- from food habits to production -- in order to develop effective techniques for addressing nutritional problems.[124] There was a paradox in the undertaking of these applied nutrition programmes which the Joint FAO/WHO Expert Committee described. Nutritional workers, the committee asserted, should note that successful projects would lead to increased child survival and population growth, with consequently increased agricultural needs. Thus, in the committee's words, nutritional "'progress'...has been accompanied by deterioration in health, partly owing to replacement...of traditional nutritious foods by sophisticated foods of inferior value."[125] This warning was emblematic of two major thoughts that coursed through the minds of many in public health. Firstly, it was then in the nutritionists' power to produce marked "progress" in the lives of ignorant people afflicted by poverty. Secondly, the nutritionists in their potent role had to be careful with the "progress" they stirred, lest it be too harmful. This latter insight must have been reassuring to many nutrition workers who preferred directing their efforts towards nutritional research. Since nutritional development could be a veritable powder keg, it was best to continue studying problems until all aspects had been clarified. This predilection was not entirely rare. At a symposium in 1953, Platt remarked that "People sometimes say that there is no point in having medical services to keep children alive so that they may later die of starvation...The only solution I can see is that we help people to have fewer children".[126] In other words, saving children's lives through nutritional improvement without providing birth control to mothers could spell more trouble for future generations. This sentiment ran contrary to popular conceptions of the role of science especially in terms of nutrition. Further, it was rarely discussed in other settings for decades to come.

Although the Joint FAO/WHO Expert Committees had no official powers within the sponsoring agencies, their influence was considerable and their composition reflected broader organizational and political nuances. Of the 1953 Joint FAO/WHO Expert Committee on Nutrition, for example, Scrimshaw noted that "there was a

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[124]Ibid., pp. 29-33.

[125]Ibid., p. 31. The "traditional foods" were often thought of as legumes and other sources of protein, whereas the "sophisticated foods" were low-protein cereals.

[126]Mr. Pirie, comment in B. S. Platt, 'Food and its production', contribution to Symposium on Development of Tropical and Sub-Tropical Countries, London, Arnold, 1953, 97-128, on p. 117.

disproportionate British influence...not inappropriately".[127] The gross majority of members, which changed committee to committee, had substantial interaction with WHO and FAO, though they were not full-time employees of either organization, except in rare cases. The major administrative input at such meetings came from the secretaries who were the respective heads of the nutrition divisions. At these meetings, the consultants had the opportunity to review past work and future plans and to make directed recommendations. These committees served well as a forum for the most distinguished nutritional issues in any given time period. Béhar believed that during the 1950s, "FAO/WHO expert committees were admired very much, and we took their word as the final word scientifically...[They] gave the scientific basis and guides for our work."[128] Scrimshaw, who served on most of these expert committees, believed that there was no greater concerted force in policy and ideology. He asserted that "The FAO/WHO expert committees brought together the best people that WHO and FAO could identify and brought the best knowledge that was available at that time and that was the forum for policy formation in at period." The issues were too large to be tackled by one administrator, thus Scrimshaw declared that

> Certainly Jim [R. C.] Burgess [second head of the WHO Nutrition Section] did not independently attempt to make policy, he wasn't that kind of leader, he brought people together for consensus and so forth. So Jim would be guided by what the FAO/WHO expert committee and some consultants at that time suggested that he do. And the Nutrition Division in FAO wasn't that big either, it was much bigger than WHO but in that period the advisory committee really meant something, in the sense that decisions were made by an advisory group and not by bureaucrats-- today that's changed.[129]

In no uncertain terms, scientists were elevated through these committees to influential policy positions. The ramifications of this hierarchy shall become clearer as we continue to explore this history.

Conferences

Although programmatically, FAO, WHO, and Unicef steered clear of work in the developing countries due to budgetary restraints and priorities in Europe, FAO

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[127]Nevin S. Scrimshaw, interview, 25 July 1995.

[128]Moisés Béhar, interview, 29 December 1995.

[129]Nevin S. Scrimshaw, interview, 18 July 1995.

made major strides in informing developing countries of the severity of malnutrition. Beginning as early as 1948, FAO collaborated with other organizations, including the Pan American Sanitary Bureau and WHO, to produce conferences on nutrition in the developing world. The first such conference in Latin America, held in Montevideo during July 1948, set a research-oriented tone for future conferences. The cornerstone of the Montevideo conference was a list of approximately seventy recommendations on topics ranging from survey data collection to governmental fertilizer policies and school lunch programmes. The broad recommendations were emblematic of the central dilemma nutritionists faced in the world's poorest countries: there were enormous problems and minimal resources. A decisive example of this doubly harmful combination centred around nutritional knowledge. The Montevideo conference, for example, recognized that nutritional knowledge in Latin America was vastly inadequate and recommended that major surveys be conducted in all sectors to illuminate the nutritional situation. However, the participants noted "that in all the countries in the region the resources necessary for this purpose, such as trained personnel, laboratory facilities, funds, etc., are insufficient."[130] Often it seemed that discussion was the one tangible result of such conferences,[131] though Aykroyd found such conferences improved ties between FAO and governments and "put nutrition 'on the map' in member countries".[132] Nonetheless, the abundant recommendations at these conferences generally demanded financial backing that was rarely forthcoming. When the Latin American conference recommended that "all Latin American countries establish services for providing primary school children with food, which may be supplied through breakfasts or lunches," there was no discussion of the means for accomplishing such a lofty goal.[133] The only goal that was noticeably attained was the recommendation for future conferences.

At the second Latin American nutrition conference, attended by luminaries like Scrimshaw and Waterlow in June 1950, a few notable changes occurred. WHO began

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[130]*Nutrition Conference*, Montevideo, July 1948, Montevideo, Uruguay, FAO, 1950, p. 175.

[131]This should not suggest that the constitutions of either FAO or WHO called for more than recommendations and advice. However, for FAO in particular, its central occupation was to raise the level of nutrition of the people of the world. For the shifting nature of FAO's constitution see: *Report of the Special Session of the Conference*, Washington, D.C., 3-11 November 1950, Washington, D.C., FAO, January 1951.

[132]Aykroyd, op. cit., note 38 above, p. 7.

[133]*Nutrition Conference*, op. cit., note 130 above, p. 185. School-feeding programmes as well as other supplementary food programmes had been highlighted by FAO since its inception as methods for significantly combating undernutrition. See: Wallace R. Aykroyd, 'Nutrition and poverty - a brief world survey', FAO Archives, 57.1D1, October 1946, p. 4.