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Josh,
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6. A draft of this note was to sent Josh to inform him of the above. He confirmed in EMAIL of 03/09/1996 14:25 that there is no restriction on making known his dissertation to others. A copy of this note and confirmation of no restrictions will be kept attached in the Chron log and Hist Project files of the dissertation.

7. On the acknowledgment [page 6 of dissertation] there is mention of the UNICEF records management and Library staff as well as former staff such as E.J.R. Heyward, J. Charnow, H.Stein and others.

8. In the dissertation there is reference to recent interviews Josh conducted with former UNICEF staff. He confirmed in Email that were possible he will share a copy of the notes that he has made of these interviews. We will add to our interview series.

- Adhiratha

KAK

_____ Reply Separator _____

Subject: -No Subject-
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Adhiratha, I got all the stuff you faxed and mailed. Thanks for the kind gratitude. Ideally, I suppose the tapes of Heyward and my spotty transcripts would be good for you to have...I hope to get to both sometime (soon?). Please note that the title of the dissertation is Hunger, Science, and Politics (not policies!)...I'm sure it was just a typo. Of course there are no restrictions on making my dissertation known (so long as it's not criticized --just kidding).

Best regards,
Peace,
osh

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Hunger, Science, and Politics:
FAO, WHO, and Unicef Nutrition Policies, 1945-1978

by

Joshua Nalibow Ruxin

A dissertation submitted for the degree of Doctor of Philosophy

University College London

University of London 1996

Abstract

Out of the chaos of W.W.II emerged three United Nations agencies -- FAO, WHO, and Unicef -- endowed with the joint responsibility to help conquer hunger and malnutrition. Seminal nutritional research before the war along with idealistic policy makers and nutritionists afterwards set the stage for the first international initiatives to address nutritional issues in developing countries. This dissertation relies mainly on an array of primary sources and oral histories to elucidate the evolving position of nutrition in FAO, WHO, and Unicef.

Nutritionists at the UN agencies, research institutes, the UN agency-supported Protein Advisory Group, and expert committees contributed substantially to the shape and focus of international nutrition policies. Alongside developments in nutritional science, administrators at FAO, WHO, and Unicef implemented complementary policy changes. During the early-1950s, nutritionists began applying lessons learned from the treatment and prevention of malnutrition during W.W.II to recently discovered nutritional problems in developing countries. Consequently, the agency plans for the developing countries usually entailed dried skim milk distribution and production projects since these had been successful in Europe. Throughout the 1950s and 1960s nutritionists concentrated on protein malnutrition and its clinical manifestation, kwashiorkor. Caloric deficiencies, which in severe cases led to marasmus, were of secondary importance as was emerging knowledge about the complex interactions of nutrition and infection. The apparent prevalence of protein malnutrition led nutritionists to draw attention to pre-school children and to develop high-protein dietary supplements. Agency policies reflected these developments and emphasized nutrition education projects, supplementary food distribution, and other schemes designed to tangibly impact nutritional status, especially of children.

The lack of progress against global hunger and malnutrition inspired the agencies during the late-1960s and 1970s to promote national development plans that prioritized the nutritional needs of the population. During the same period, many nutritionists drew attention to the declining protein intake of the poor and called for monumental efforts to increase protein production and availability. Although nutrition policies initially took note of this protein deficit, within a few years the nutritionists' fears were considered to have been reactionary. As a result of this and the largely uneven results of nutrition policies, the administrators tired of the influence of the nutritionists and created a new hierarchy that placed nutritionists lower on the ladder of power. Toward the end of the 1970s, nutritional enterprises lost their singular importance and were increasingly integrated with primary health care endeavours.

Contents

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I wish to thank the many people whose generous contributions to this dissertation were vital: Pat Harman at the LSHTM Archives, the resourceful staff at The Wellcome Institute for the History of Medicine Library, Adhiratha Kevin Keefe and the record management staff at Unicef, Jean Ando and the Unicef Library staff, Marva Coates at the FAO Library in Washington, D.C., Piero Malaguti at the WHO Archives in Geneva, Giuliano Fregoli at the FAO Archives in Rome, Jane Wu and the FAO David Lubin Memorial Library staff in Rome, and Edwina B. Murray at The United Nations University Food and Nutrition Programme in Boston.

I am grateful to The Wellcome Institute for the History of Medicine for generously providing luxurious facilities. I would like also to thank the Marshall Aid Commemoration Commission for the Marshall Scholarship which supported this research.

Among others, I received extremely helpful insights from the following: Ken Bailey, Alan Berg, Jim Burgess, Leslie Burgess, John Charnow, William Darby, C. Gopalan, Peter Greaves, Jean-Pierre Habicht, Paul Lunven, Donald McLaren, P. R. Payne, Ralph Phillips, Felicity Savage, Herman Stein, and Carl Taylor.

I am indebted to E. J. R. Heyward, J. C. Waterlow, M. Autret, N. S. Scrimshaw, J. M. Bengoa, and M. Béhar for their views, hospitality, and informational resources. I am especially grateful to my supportive and sage adviser, Professor William F. Bynum. Most of all, I wish to express my deepest gratitude to Christy Gibbs for her superhuman editing, ideas, and emotional support.

Abbreviations

ACC - Administrative Committee on Co-ordination

ACST - UN Advisory Committee on Science and Technology to Development

AGN - Advisory Group on Nutrition

ANP - Applied Nutrition Project (or Programme)

ETAP - Expanded Technical Assistance Programme

FAO - Food and Agriculture Organization

FFHC - Freedom From Hunger Campaign

HOLN - Health Organisation of the League of Nations

IBRD - International Bank for Reconstruction and Development (The World Bank)

IFAD - International Fund for Agricultural Development

IIA - International Institute of Agriculture

LSHTM - London School of Hygiene and Tropical Medicine

MCH - Maternal and Child Health programmes

MCP - Milk Conservation Programme

PCM - Protein-Calorie Malnutrition

PEM - Protein-Energy Malnutrition

SCN - Sub-Committee on Nutrition

UN - United Nations

UNDP - United Nations Development Programme

UNICEF - United Nations Children's Fund

WFC - World Food Council

WFP - World Food Programme

WHO - World Health Organization

Chapter I
Introduction

Background

The quest to end hunger and malnutrition in the twentieth century, an endeavour most notably championed by the United Nations (UN) system during the last few decades, has followed a largely uneven and controversial course. This mighty goal stemmed from idealistic policy makers as well as seminal nutritional findings which emerged in the 1930s. Landmark nutritional research and idealism by the late-1940s suggested that through advanced agricultural techniques and inter-governmental co-operation, Malthusian prophesy could be proven wrong: food supplies could provide adequate nutrition for everyone. The vast dimensions of nutrition problems, however, required that the issue be explored and addressed from a variety of perspectives. This dissertation specifically examines the complex relationship between scientific nutritional work and UN nutrition policy directed at hunger and malnutrition in developing countries. By scrutinizing a contemporary topic, I have attempted to help bridge not only the historical divide between science and public policy, but the contemporary gap between historians and policy makers.

Nutrition provides an exceptionally rich resource for public health history research since a number of the puzzling central issues remain as salient today as several decades ago. By connecting nutritional science to developments in international nutrition policy, I have attempted to illuminate some of the murky dilemmas that have troubled nutrition experts and plagued nutrition programmes for decades. In the development field, it is remarkably difficult to delineate how scientific research was ultimately converted into policy and technical assistance. Frequently, ad hoc committees were assembled, conclusions were drawn, compromises were made, recommendations were interpreted, and official policy was stated. This bureaucratic process obscures the actual path of scientific findings and their arrival in policy. It is my intent to illuminate how this process functioned at three UN agencies: the Food and Agricultural Organization (FAO), the World Health Organization (WHO), and the United Nations Children's Fund (Unicef). My work seeks to fill two lacunae: firstly, it provides a historical perspective on the development of fundamental hunger and malnutrition policies. Secondly, it tracks the interrelationship of the major UN agencies concerned with malnutrition -- FAO, WHO, and Unicef -- in designing these

policies. Far from being a catalogue of nutritional projects, this dissertation directs its attention to the complex relationship between scientists and policy makers in the establishment of nutritional priorities and programmes. Because FAO, WHO, and Unicef were agencies largely borne out of post-W.W.II commitment to international organizations, the temporal zone of the dissertation runs primarily from W.W.II to 1978, a critical turning point in this history.

The bearing of malnutrition and hunger on many aspects of health, agriculture, and economics renders it a focal point of multi-disciplinary interest. Nutrition encompasses multifarious aspects of every human being's daily life and therefore scientifically provides the backboard for manifold sociological, anthropological, ecological, psychological, and agricultural queries. Although in the developed countries the role of the nutritionist is now publicly and professionally respected, this development is extraordinarily contemporary. When considered against today's ironic backdrop of dietary obsession in the industrialized world and prevalent hunger and malnutrition in the developing world, it is difficult to imagine how, up until W.W.II, nutritional science as an autonomous scientific discipline did not exist, and the nutritional status of populations throughout the world remained virtually untracked. In general, scientists working on nutrition before and long after W.W.II did not view themselves as "nutritionists", nor did they wish to be considered as such. Researchers in nutrition drew on academic backgrounds in other sciences such as pharmacology, biology, biochemistry, physiology, medicine, and organic chemistry. It was not until graduate training in nutrition began that nutrition emerged as a field in its own right.[1] Well into the 1940s, scientists remained uncertain about the precise position of nutrition under the broader umbrella of science. One scientist in 1943 wrote confidently that "Nutrition, formally classified as a branch or aspect of physiology, and practically treated as an essentially autonomous science, has actually developed as a branch of the exact science of chemistry."[2] This comment illuminates how important it was for nutritionists to define nutritional science as an exacting scientific endeavour and thereby secure research funds and respect.

At least some of the problems associated with the nutritionists' place in professional circles emerged from the perennial uncertainty over the meaning of nutrition, a source of considerable controversy for the better part of the century. At a conference in 1939, the eminent scientist, Sir Robert McCarrison, presented a diatribe

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[1]Elsie Widdowson, interview, 10 October 1995. At times in the dissertation I will return to this issue and demonstrate that the nutritionists' struggle for professional acceptance continued during the time period covered.

[2]H. C. Sherman, *The Science of Nutrition*, New York, Columbia University Press, 1943, p. 149.

against those, Professor Cathcart of the London School of Hygiene and Tropical Medicine (LSHTM) among them, who utilized the term nutrition loosely. A flustered McCarrison commented,

> Few words in the English language are more often misused than the word 'nutrition.' It is commonly, indeed usually, employed as a synonym for 'food'; and sometimes it is spoken of as a condition of body depending on food. Actually, it is the sum of the processes-respiration, mastication, digestion, absorption, circulation, assimilation and excretion-concerned in the growth, maintenance and repair of the living body as a whole or of its constituent parts...nutrition implies function rather than food, acts and processes rather than their results.[3]

Dr. Donald McLaren, a prominent British nutritionist, has followed in McCarrison's footsteps and argued persuasively that "Nutrition on its own is not a science; it is an integral part of physiology, biochemistry, cell or molecular biology."[4] He further distinguished nutrition from dietetics, remarking that nutrition is a physiological process whereas dietetics, which rests on nutritional principles, seeks to "maintain or improve health through optimal feeding practices".[5] This dissertation shall use the term nutrition in its broadest, colloquial sense, essentially encompassing McLaren's definitions of nutrition and dietetics. Furthermore, I have employed the term nutritionist in a broad sense since many individuals occupied with nutritional issues were not qualified nutritionists. Thus, I have defined a nutritionist as one interested in nutritional issues and engaged in the field. The terms malnutrition and hunger require further clarification.

Hunger is often caused by gross food shortage and poverty which lead to inadequate intake of foods required for optimal physical and mental performance. Hunger is synonymous with undernutrition; in its acute form hunger is starvation, and widespread starvation is considered famine. Malnutrition refers to the inadequacy of one or several of the nutrients needed to function at potential. A person suffering from malnutrition may ingest sufficient calories for survival but may not eat enough of the right types of foods. Thus, hunger is essentially quantitative, and malnutrition is more qualitative. Protein-energy malnutrition, the most prevalent form of

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[3]*Proceedings of a National Conference on the Wider Aspects of Nutrition*, London, British Medical Association, 1939, pp. 25-6. See also: Robert McCarrison, *Nutrition and National Health -- being the Cantor Lectures delivered before the Royal Society of Arts.*, London, Faber and Faber Limited, 1936, pp. 12-16.

[4]Donald S. McLaren, 'Nutrition in medical schools: a case of mistaken identity', *American Journal of Clinical Nutrition*, 1994, 59, 960-63, on p. 961.

[5]Ibid.

malnutrition, involves a lack of protein and energy, but might be induced by early weaning, gastro-intestinal infection, or other infection. Unless otherwise noted, malnutrition will refer specifically to protein-energy malnutrition. Hunger strikes down people of all ages whereas protein-energy malnutrition tends to affect infants and pre-school aged children.[6] This dissertation uses the terms hunger and malnutrition loosely, reflecting a measure of convenience as well as acknowledgement that the historical differences between the two were often blurred in policy contexts.[7]

Nutritional Efforts

The manifestations of nutritional deficiencies have been well-known in the developed countries for centuries. Their identifiability as avitaminoses or nutritional inadequacies, however, could not be confirmed until the explosion of scientific evidence ignited in part by Casimir Funk's discovery of vitamins in the second decade of the century.[8] While a plethora of research on the direct relationship between nutrition and health followed during the two ensuing decades, the existence and prevalence of nutritional disorders in the developing world principally remained a scientific point of ignorance. Some of the data which appeared emanated from anthropological work, such as Audrey Richards' famous study, *Hunger and Work in a Savage Tribe*. Her experience with the Southern Bantu led her to a vastly more illustrative image of hunger than her medical counterparts in the colonies. Richards wrote in 1932 that

> Hunger leads first, it is true, to the concentration of the whole energy of the body on the problem of getting food. Every thought and emotion of the starving man is fixed on this one primary need. But if he fails to obtain it, there are no complex psychoses for observation,

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[6]Donald S. McLaren, 'Nutrition policy, planning, and programmes: a personal overview', in D. S. McLaren (ed), *Nutrition in the Community*, Chichester, John Wiley & Sons Ltd., 1983, table on p. 13.
[7]For example, in 1960 a WHO nutrition officer sought to clarify the definition of malnutrition for an FAO colleague. Attributing his conception of the term to B. S. Platt and other prominent nutritionists, he wrote that malnutrition encompassed undernutrition, overnutrition, and an "imbalance of various nutrients." F. W. Lowenstein, letter to K. K. P. N. Rao, 4 March 1960, WHO Archives, box A.0916. A year earlier, W. R. Aykroyd, the director of FAO's Nutrition Division, suggested that the term hunger signified "insufficient food" as well as a "lack of the nutrients needed for health." W. R. Aykroyd, letter to W. H. Pawley, 6 July 1959, FAO Archives, FAO office of ADG, Dr. M. Ezekiel, FFHC files, titles A-E.
[8]Casimir Funk, *The Vitamines* , Harry E. Dubin, Translator, 2nd ed., Baltimore, Williams & Wilkins Company, 1922.

but merely the gradual lowering of the whole vitality of the body, and the lethargy which leads to death.[9]

Richards and only a few others were conspicuous in their interest in hunger in the developing countries during the 1930s. While Richards was out in the field, there were many in the laboratory who were building on Funk's insights. Related developments during the 1930s enabled McCollum and other researchers to remark that 1940 marked "the achievement of the primary objectives set by pioneers in [nutritional research]".[10] The major vitamins and vitamin deficiencies had apparently been identified, and it seemed the conquest of nutritional diseases was then within reach.

Although ambivalence toward the developing world might be identified as the force that prevented extensive nutritional research there prior to W.W.II, it also seems plausible that researchers, physicians, and scientists in industrialized countries were absorbed with the health problems in their own countries. Throughout the 1920s and 1930s, the focus of much nutritional concern was clinically-defined avitaminoses; devastating forms of undernutrition and malnutrition such as kwashiorkor and marasmus, to date ill-defined, went virtually unnoticed. Furthermore, subtler forms of malnutrition and hunger were unidentified. Nutritional problems at the centres of nutritional research in England and the United States still loomed prominently enough to attract a great part of resources. Overwhelming nutritionally-related health problems fuelled the thrust behind several great nutritionists' work to encourage national milk distribution programmes and school feeding. Many of the forces behind these national programmes were the very scientists who had uncovered some of the mysteries of the human diet. In the person of Funk, Mellanby, Orr, Platt, Aykroyd, and others, these scientists garnered reputations for being the caretakers of national well-being and later came to lead the fight against malnutrition throughout the world. After W.W.II, improvements in communications, science, and international medical staff in the developing world began to elaborate the gross nutritional inadequacies in day-to-day life in Asia, Latin America, and Africa. While scientific interest in the developing world sprouted in a number of health-related fields, nutrition rapidly stood out as a central point for concern, policy, and investigation.

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[9]Audrey I. Richards, *Hunger and Work in a Savage Tribe*, London, George Routledge & Sons, LTD, 1932, p. 2.

[10]E. V. McCollum, *A History of Nutrition*, Boston, 1st ed., Houghton Mifflin Company, 1957, p. 420.

Nutritional Thought

When I embarked on this dissertation, my nutritional knowledge drew primarily from my public health work and training as well as from previous investigations in public health history. With my interest in contemporary public health history and new-found enthusiasm for nutrition history, I expected that Thomas McKeown's influential work might become an important element of my dissertation. In the final analysis, his findings served as a valuable starting point.

The failure and shortcomings of technological solutions to public health problems in part inspired McKeown's popular investigations on the history of human disease. Contemporary, conventional wisdom during the nineteenth and twentieth centuries attributed improvements in health, particularly the tremendous drops in morbidity and mortality rates, to public health measures and medical advances. To the contrary, McKeown asserted that public health and medicine affected individual outcomes but had only a negligible effect on overall rates. After examining morbidity and mortality in Great Britain, McKeown deduced that the only possibility for the main cause of the fall of mortality had been improved nutrition. McKeown asserted that most public health measures and scientific advances had only a negligible impact on the mortality rates during the latter half of the nineteenth century (and into the twentieth). In regard to one mythically important public health measure he wrote, "I conclude that immunization and treatment contributed little to the reduction of deaths from infectious diseases before 1935...and were much less important than other influences."[11]

McKeown tried to muster support for the role of improved nutrition by concluding "that the decline of mortality from infectious diseases was not due to a change in the character of the diseases, and that it owed little to reduced exposure to micro-organisms before the second half of the nineteenth century or to immunization and therapy before the twentieth".[12] His broad interpretation of limited evidence led to a forceful attack on his views, best embodied in Simon Szreter's essay, 'The importance of social intervention in Britain's mortality decline c.1850-1914: a re-interpretation of the role of public health'. McKeown had argued vehemently against the role of public health in Britain's mortality decline -- Szreter reinterpreted much of McKeown's own data and evidence to provide an alternative and contradictory interpretation. Marshalling his most potent public health indicators, Szreter stated that

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[11]Thomas McKeown, *The Modern Rise of Population* , London, Edward Arnold, 1976, p. 109.
[12]Ibid., p. 128.

"The all but complete eradication by the end of the [nineteenth] century of typhoid, cholera, and smallpox each testify in different ways to the importance and effectiveness of various aspects of the large-scale strategic public health measures which were introduced during this period."[13] The decline of these three diseases, according to Szreter, demonstrated that public health played a sufficiently pro-active role to avert epidemics, and ostensibly to promote a decline in mortality rates. The virtual eradication of the diseases Szreter cited could, at least better than any other infirmities, be correlated with improvements in public health. McKeown, however, masterfully demonstrated that the decline of these diseases had little bearing on the mortality rate in England. Smallpox, for example, could be associated with only 1.6% of the mortality decline from the mid-nineteenth century to 1971.[14]

McKeown's and Szreter's arguments provided a clarifying framework through which to examine nutrition history. McKeown represented a medical perspective which placed the advancement of health on a nutritional foundation. Szreter, on the other hand, credited public health, medicine, and technological improvements. Their arguments identified two of the central themes that course through nutrition policy and ideology, though they did not significantly address or influence the historical events themselves. Although McKeown at times projected his findings in a cursory manner on the developing world, in general he focused on his original data set from Britain.[15] In spite of the parallels between McKeown's ideology and developments in nutrition which occurred during the time of his writing, he rarely alluded to contemporary evidence for his conclusions. I therefore found that his work and its criticism provided an intellectual backdrop for my methodology rather than substantive evidence for the history presented.

Historiographical Background

Among the many people who worked directly and indirectly on nutrition issues around the globe during the time period covered herein were planners, field workers, economists, anthropologists, and agriculturists. In order to maintain focus, I have attempted to follow those who were linked directly to outstanding work in nutritional

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[13]Simon Szreter, 'The importance of social intervention in Britain's mortality decline c.1850-1914: a re-interpretation of the role of public health', *Social History of Medicine*, 1988, 1(1), 1-37, on p. 26.
[14]Thomas McKeown, *The Origins of Human Disease* , Oxford, Basil Blackwell Inc, 1988, p. 80.
[15]In the 1980s McKeown did carry some influence on WHO expert committees, including a WHO expert report on health strategies. Kenneth S. Warren, 'Health for all by the year 2000?', in *1990 Britannica Book of the Year*, Chicago, Encyclopaedia Britannica, Inc., 1990, pp. 21-30, on p. 25.

science and nutrition policies at the highest levels. The published record for this history does little to describe the flow of events and leading influences. From the dry agency texts, little can be gleaned about the nature of the personalities, the personal and professional clashes, and the real issues at stake. This dissertation attempts to trace the formation of policies which specifically targeted hunger and protein-energy malnutrition. Other malnutritional diseases such as rickets, beriberi, pellagra, scurvy, and xerophthalmia have been treated peripherally, if at all. The pivotal reason for focusing on hunger and protein-energy malnutrition is that together, they were believed to affect more people than all the other nutritional diseases combined. Even today, hunger is believed to affect approximately one billion people and malnutrition over one half a billion.[16] Furthermore, the broad policy developments during the time period covered sought the global conquest of hunger and protein-energy malnutrition since these two afflictions were ubiquitous in the developing world.

Several contemporary histories offer personalized and scholarly accounts of developments in various aspects of nutritional work such as pellagra, kwashiorkor, vitamins, and the avitaminoses. Many of the most substantive and enlightening pieces on nutritional history have covered the nineteenth century and the inter-war period. Several of these histories provide important scientific and organizational background relevant to the scope of this dissertation. *The History of Public Health and the Modern State*, provides useful background information on the state of public health in developed countries, as well as a couple of developing country case studies and a primer for international public health.[17] *International health organisations and movements, 1918-1939*, presents several important essays on the form of international health endeavours before the UN with important emphasis on the Health Organisation of the League of Nations.[18] Further information about the formation of international health organisations as they related to WHO is encountered in *International Public Health between the Two World Wars - The Organizational Problems.*[19] For a scientific perspective on nutrition prior to W.W.II, *The Science and Culture of*

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[16]Donald S. McLaren, op. cit., note 6 above, table on p. 13.

[17]Dorothy Porter (ed), *The History of Public Health and the Modern State*, Amsterdam and Atlanta, Editions Rodopi B. V., 1994. Celia Petty has written a fine overview of the relationship between nutritional research and public health in Britain during the inter-war years. See: Celia Petty, 'Primary research and public health: the prioritization of nutrition research in inter-war Britain', in Joan Austoker and Linda Bryder (eds), *Historical Perspectives on the Role of the MRC*, Oxford, New York, and Tokyo, Oxford University Press, 1989, pp. 83-108.

[18]Paul Weindling (ed), *International health organisations and movements, 1918-1939*, Cambridge, Cambridge University Press, 1995.

[19]Norman Howard-Jones, *International Public Health between the Two World Wars - The Organizational Problems*, Geneva, WHO, 1978.

Nutrition, 1840-1940, contains many interesting pieces.[20] Two of the finest collections of edited primary source material on early international nutritional work in Colonial Tanganyika and Nyasaland are: *The Culwick Papers 1934-1944* and *The Nyasaland Survey Papers 1938-1943*.[21]

Few histories have broached the topic of nutrition policies since W.W.II. There have been a handful of histories written about the UN agencies treated in this dissertation. By and large, these have either been commissioned by the agencies themselves, written by insiders, or some combination of the two. At the rare moments when they have addressed nutritional issues, they have shirked thoroughness and historical analysis in favour of simplicity. Maggie Black's history of Unicef stands out in this league. Although it is not an official Unicef document, its uncritical, cheering tone detracts from the impressive breadth of historical insights presented.[22] John Charnow and Margaret Gaan wrote an unpublished history of Unicef that provides a reasonable, though sterile, view of major developments up to the early-1960s.[23] Ralph Phillips' *FAO: its origins, formation and evolution 1945-1981*, is little more than a glorified organizational plan, complete with important dates and selected policy changes.[24] FAO's own history, *FAO: The First 40 Years*, though picturesque, falls appallingly short on detail.[25] John Abbott's *Politics and Poverty: A Critique of the FAO of the UN*, overlooks nutritional endeavours and presents a contemporary argument with few historical references.[26] WHO has published a few books which predictably applaud its work, including *The First Ten Years of the World Health Organization*, and *The Second Ten Years of the World Health Organization*.[27] These books are essentially propaganda based on a few high-profile organizational accomplishments. Nevertheless, they offer a reasonable presentation of basic

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[20]Harmke Kamminga and Andrew Cunningham (eds), op. cit., note 12 above. David Smith's forthcoming volume will also provide important point of view from the British perspective. David Smith (ed), *Nutrition in Britain: Science, scientists and politics in the twentieth century*, London and New York, Routledge, in press. Smith's Ph.D. dissertation offers a comprehensive account of nutrition in Britain. David Smith, 'Nutrition in Britain in the Twentieth Century', University of Edinburgh, 1986.

[21]Veronica Berry (ed), *The Culwick Papers 1934-1944: Population, Food and Health in Colonial Tanganyika*, London, Academy Books, 1994. Veronica Berry and Celia Petty (eds), *The Nyasaland Survey Papers 1938-1943*, London, Academy Books, 1993.

[22]Maggie Black, *The Children and The Nations: The Story of Unicef*, Hong Kong, Unicef, 1986.

[23]John Charnow and Margaret Gaan, *History of Unicef*, Unicef Archives, 1965.

[24]Ralph W. Phillips, *FAO: its origins, formation and evolution 1945-1981*, Rome, FAO, 1981.

[25]*FAO: The First 40 Years*, Rome, FAO, 1985.

[26]John Abbott, *Politics and Poverty: A critique of the Food and Agriculture Organization of the United Nations*, London and New York, Routledge, 1992.

[27]*The First Ten Years of the World Health Organization*, Geneva, WHO, 1958, and *The Second Ten Years of the World Health Organization, 1958 - 1967*, WHO, Geneva, 1968.

organizational bearings. Several other books have given broader overviews of international agency work. Neville Goodman's *International Health Organizations* is a good collection of far-flung data, and Ross Talbot's cursory writings contribute a few titbits of important information on the international food agencies.[28] Charles Glen King's history of the Nutrition Foundation delivers some basic guidance for tracking down important figures in international nutrition policy from 1941 to 1975.[29]

Among the areas where one encounters a dearth of historical enterprises is nutrition policy, particularly within the UN system. The shining star in this historical field is Kenneth Carpenter's book, *Protein and Energy*, an important account of this interaction which includes a few chapters dealing with UN agencies.[30] Additionally, Victoria Quinn's published dissertation, *Nutrition and National Development: An evaluation of nutrition planning in Malawi from 1936 to 1990*, provides some fine background material and a micro-analysis of nutrition which effectively reflects many of the trends recorded in this dissertation. While she describes the role of UN policies in Malawi, she infrequently elaborates on the broader macro-level formation of nutrition policy.[31] The other significant secondary sources are the personal historical perspectives that have appeared in UN-supported periodicals and in prominent medical journals. As would be expected, these articles are peppered with their own biases and agendas and have therefore been treated delicately.

In this variety of sources, I found that no one source was devoid of significant pitfalls threatening its central conclusions and presentation. While I generally trusted the dates provided in documentation, I scrutinized the "facts" found within. Although oral history provided me with a springboard for diving into select issues, the bedrock of the dissertation is in the documents, most of which are unpublished. Even the most comprehensive sources failed to reflect the full breadth of correspondence and decision-making within an agency. The volumes of the FAO Conference and Council, the WHO Health Assembly, the *Yearbook of the United Nations*, and the *PAG Compendium*, generally present only the blandest of events suggesting a silky smooth

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[28]Neville M. Goodman, *International Health Organizations And Their Work*, Edinburgh and London, Churchill Livingstone, 1971. See also: Ross Talbot, *The Four World Food Agencies in Rome*, Ames, Iowa, Iowa State University Press, 1990 and Ross Talbot, *Historical Dictionary of the International Food Agencies FAO, WFP, WFC, IFAD*, Metuchen, New Jersey, The Scarecrow Press, Inc., 1994.
[29]Charles Glen King, *A Good Idea: the history of the nutrition foundation*, New York and Washington, The Nutrition Foundation, 1976.
[30]Kenneth J. Carpenter, *Protein and Energy: A Study of Changing Ideas in Nutrition*, New York, Cambridge University Press, 1994.
[31]Victoria J. Quinn, *Nutrition and National Development: An evaluation of nutrition planning in Malawi from 1936 to 1990*, Den Haag, CIP-Data Koninkluke Bibliotheek, 1994.

linearity between policy changes.[32] While these sources often provide relevant minutiae, they are largely devoid of colour and thoughtful insights. This documentation provides the expectedly clinical public record which often clashes with the correspondence and other sources I uncovered. The main published resource on the Protein Advisory Group of the United Nations (PAG), the *PAG Compendium*, neglects numerous informative and important documents, especially those related to the PAG's decline in the 1970s. Based on the volumes alone, one would have an unabashedly positive view of the PAG and certainly could not foresee its demise in the mid-1970s.

At times I have relied on provisional agenda items more than the actual proceedings of certain conferences because the provisional work shed more light on nutritional policy than was apparent in the final documentation. This was the case, for example, at the World Food Conference of 1974. In a few instances, I have made use of preliminary or proposed committee and conference reports because they have been more impressive than the watered-down final versions. Since such proposed reports sometimes contain information that a party disagreed with, I have checked the final documents to ensure the validity of my remarks. When possible, I have only cited journal articles which I know carried some weight or were at least read by administrators at the agencies. In this manner I have tried to present a more accurate picture of the forces involved in the making of policy. The assorted FAO/WHO Expert Committee on Nutrition reports are useful benchmarks for examining trends in nutritional thought.[33] Far more than being the inventor of nutritional issues, the committee came to build its recommendations on ideas that had been percolating in nutrition circles and eventually moved up to a policy level. Unfortunately, due to the nature and abundance of the expert committee meetings, few interviewees were able to provide me with detailed information about any given meeting. The record itself does little to reflect the animosities that might have been present. Further, the final reports were usually written by one or two members of the committee. Thus, these documents served well as road guides, but have necessarily limited narrative appeal. On this note, it is important to remark on the timing of trends.

Although I have consistently mentioned the years of nutrition congresses and committee reports, I have done so in order to provide only a general chronology of the

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[32]*Yearbook of the United Nations*, Office of Public Information, United Nations, New York, 1-33, 1947-1980.

[33]In cases where committee meetings have been co-sponsored by the agencies and co-published, such as the Joint FAO/WHO Expert Committee on Nutrition meetings, I have tried to provide bibliographical information on both agency's publications.

flow of events. However, many of the sources I utilized that exposed clear-cut changes in modes of thought or action were merely reflections of currents that had been under way for years beforehand. The seeds of the "Great Protein Fiasco" can be seen decades before the famous article by this name was published, and I have purposefully pointed this out through other, earlier sources. By the same token, many of the major topics I have presented -- from malnutrition and infection to national nutrition planning -- have histories which reached back for years before they were served on the policy table. Where appropriate, I have highlighted sources which point to a continuum of ideas that eventually rose to a policy level. For example, although Unicef declared its commitment to applied nutrition programmes in 1957, such ideas and projects had been considered for years beforehand. Since this dissertation is primarily concerned with policy, I have shaped my presentation around the ideas which shaped such policy as well as on the policy itself.

Due to the scarcity of relevant secondary sources for UN nutrition policy, I turned early in this work to primary sources and oral history. I have found agency correspondence to be the most expressive and reliable resource for this project. Even given its moulding by murky ulterior motives, I found that correspondence generally presented the clearest picture of what were perceived to be the central issues and concerns. Whereas recall bias, egos, and revisionist viewpoints invariably influenced oral histories, the written record, for all its flaws, provided an original and unmodified perspective. Unicef, FAO, and WHO have preserved impressive archives complete with a plethora of important personal and professional letters. I spent the majority of my archival research time sifting through the thousands of documents in the files of the individuals responsible for nutrition at the agencies. At FAO and WHO, the nutrition heads were demarcated clearly, whereas at Unicef, I focused on deputy-director E. J. R. Heyward's files as well as on the chief Unicef nutritionist. Additionally, in order to illuminate inter-agency relations, I examined the correspondence of the assorted liaison officers who finessed and communicated policy changes. Among the many gaps that surfaced in the correspondence records was the failure of the FAO Archives to maintain nutrition correspondence from the period 1971-1978. Fortunately, many FAO documents from this time were preserved by WHO and Unicef. As a general rule, correspondence marked "Confidential" provided the greatest insights into the machinations of the scientists and policy makers involved in a given issue. These same pieces, ironically, also seemed to be the most highly reproduced at the time and often appeared in all the archives. Evidently, the authors labelled letters "Confidential" when they wished to be certain their words would be read carefully. The correspondence

crossover well reflects how few nutrition decisions occurred unilaterally, and most subjects were discussed among personnel at FAO, WHO, and Unicef. I gave considerable weight to certain pieces of correspondence that well depicted currents, concepts, and debates and which were often the most widely reproduced and criticized. The minutes and other records I came across for meetings such as the Joint Health Policy Committee (FAO/UNICEF and WHO/UNICEF) as well as for the PAG were often so highly revised and non-committal that little could be gleaned from them.

Much of the central evidence and insights contained in this dissertation emerged from a dozen and a half oral histories I conducted, in addition to correspondence and conversations with another two dozen nutrition experts and UN personnel. The contacts I developed during another contemporary public health history project in this time period provided rapid connections to key living sources for this dissertation. While conducting the interviews, I followed Saul Benison's advice for such undertakings which includes orienting oneself with relevant primary and secondary sources, using this information to draw the history from the interviewee, and cross-checking the interviewees' words with the sources.[34] Although the commentary I collected was immensely helpful, the process of eliciting it was frustrating and time consuming. On occasion I carried out a dozen hours of background research only to find that the interviewee could recall nothing more than events during the past decade. In fairness, the questions I asked invariably required a mental search which at times spanned back more than fifty years. Except on rare occasions, interview questions did not come within two decades of the present. I therefore often used correspondence I had uncovered and committee or meeting reports to jog the interviewee's memory and elaborate on undocumented influences in the written record. Frequently, however, the experts and policy makers confused the historical record, mixing events, actors, and locations in such a way as to defeat utterly their credibility. At other times the oral histories helped flesh out historical ambiguities in a way which was consistent with the record I compiled. On several instances the interviewees blurred their roles and presented viewpoints that closely correlated with their contemporary opinions but not their past stands. On other occasions the interviewees contradicted the written record but provided enough supporting sources and leads for appropriate modification. Finally, at times the correspondence I presented to the interviewees re-ignited otherwise suppressed passions and animosity.

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[34]Saul Benison, 'Oral history, a personal view', in Edwin Clarke, *New Methods in the History of Medicine*, London, Athlone Press, 1970, 286-305 on p. 291.

In a history such as this, which is evolutionary as opposed to revolutionary, it is difficult for the historian as well as for his subjects to pinpoint the historical moments which represented "change". By and large this is not a history of breakthroughs or break-ups, of invention or epiphany. Rather, it is more like the history of a wave, changing form, strength, intensity, and direction as it makes its way through time and space. Oral history forms a far larger part of the backdrop of this dissertation than the footnotes alone would insinuate. It was largely through discussing this history with giants in the nutrition field who lived through it all -- Gopalan, Autret, Scrimshaw, Waterlow, Béhar, and Heyward among them -- that I came to find the pressure points in history worth examining in detail. Their words and perspectives frequently guided me to specific events and evolving ideas that were significant and helped me find a foothold in this craggy and lengthy history.

Not only did oral history provide me with important background that had to be cross-checked with other sources, but it also gave me a better idea of the type of people these men were. Marcel Autret, although a man of eighty-seven when I interviewed him, still had a touch of the arrogance, stubbornness, and vigour which characterized him during his career. Scrimshaw, whose robust spring of energy has enabled him to travel, talk, and publish without cessation until today, exhausted me during a one-hour hike in the mountains behind his home in New Hampshire. Since he was among the most frank and forthright interviewees, I compensated for bias by being especially critical of his commentary. Waterlow and Béhar were staid gentleman, always quick to discuss what "really" happened, but also fast to point out the inherent difficulties in recalling history. Donald McLaren's feistiness -- the trait which was apparent in his critical writings -- was as alive in person as it was on paper. Peter Greaves, Ken Bailey, and Felicity Savage were extremely helpful in giving me a view from the field. E. J. R. Heyward, another nutrition enthusiast well into his eighties, demonstrated his command of the issues and his eloquence, along with his trademark uncushioned criticism. Ralph Phillips, who has followed FAO from its inception to the present day, provided important background information, especially on the inner-workings of FAO. Additionally, since he himself was not nutritionally-oriented, he gave me an outsider's view of nutritional progress and problems from FAO's earliest days.

My perceptions and impressions of these nutrition workers influenced my use of their perspectives and the value accorded their word. Since some of the interviewees were more forthcoming with their insights and made themselves more accessible, I have inevitably made greater use of certain individuals' views. However,

by cross-checking their stories with other sources, I have attempted to present the history as it was perceived not only by the interviewees, but by their colleagues as well. While this dissertation focuses on most of the key players in nutrition, there were a few important figures who have necessarily been left out. This has been in part due to the nature of the resources uncovered, the inaccessibility of these individuals, and also because I felt that overall, I presented a sufficiently wide range of perspectives to cover the major points of view. In areas where I have focused on a particularly influential person's perspective it has been in the interest of articulating their stance in the context of popular debate. Scrimshaw, for example, by nature of his immense influence and ubiquitous presence in nutritional politics and science, is frequently cited. In addition to the oral histories that I conducted, I made substantial use of nearly two dozen oral histories from the 1980s which were part of Unicef's history project.

Statistics, particularly nutrition statistics, are sufficiently complicated and abstruse as to be of little value on their own. I have made very careful use of statistics on nutrition spending since across the agencies there are tremendous inconsistencies in accounting methods. While it is relatively easy to determine the amount of funds Unicef, FAO, and WHO spent on specifically designated nutrition projects, figures for projects in other fields which included a nutrition component are difficult to extract. A team from Harvard tried to determine nutrition expenditures for Unicef between 1964 and 1973 and ended up flustered by the task. They found that while nutrition activities fluctuated between four and six million dollars during these years, as a percentage of the total budget, nutrition's share appeared to decline from 17.5% to 7.4%. There was a major caveat, however, that the responsible consultant included:

> During the past ten years, nutrition programmes have been increasingly integrated into other programmes for greater efficiency. Thus the funds are more diffused, but do not necessarily represent a decrease in funding for nutrition. Accurate statistics on how much actually goes specifically toward nutrition is not possible in increasingly integrated programmes.[35]

Nevertheless, broad comments by the executives at the agencies often revealed that despite the perturbations caused by nutrition components being shifted to other programmes, nutrition spending itself did decline. The Unicef Executive Board in

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[35]John Etridge (consultant), letter to L. Teply, 8 October 1974, Unicef Archives, 88R025, Box T-006, Teply Files. See also: Les Teply and John Etridge, letter to Jean Mayer on Unicef nutrition statistics, 1 November 1974, Unicef Archives, 88R025, Box T-006, Teply Files.

1971, for example, noted that nutrition spending, even considering shifts of nutrition responsibilities, had declined substantially. The Board cited a lack of "quick and easy" methods for addressing the problem and the ignorance of governments as the primary causes.[36] Thus, the verbal and statistical record have interacted to inform my presentation of increases and decreases in nutrition expenditures. Particularly after 1960, nutrition concerns were woven tightly into the content of a broad range of programmatic initiatives which defy financial exegesis. The supporting documentation I have cited, however, couches the figures I deem accurate in terms of the more indicative personal views of nutrition spending levels.

Overview

Based on the documentation above, I have divided the history of nutrition and nutrition policy into seven main historical chapters which are ordered chronologically from roughly 1935 to 1978. The principal focus, however, is on the years 1948 to 1978 with increased attention placed on developments later in the history since greater nutritional developments were then occurring. To the best of my knowledge, this is the first comprehensive historical work on the role of nutrition in the UN agencies. In Chapter II, I present a broad overview of the state of nutritional science as it related to developing countries before W.W.II. Included in this description is a closer look at the endeavours of the Health Organisation of the League of Nations which, before its closure, began to cast light on nutritional issues in developing countries. John Boyd Orr became a leading international figure in nutrition during this period, and the chapter concludes with his brinkmanship of the nascent FAO.

Chapter III covers the birth during the late-1940s of two additional UN agencies concerned with nutrition: WHO and Unicef. The first, uneasy years of these organizations reflect the pervasive ignorance of hunger and malnutrition in developing countries and the pressing commitments to cope with looming hunger problems in war-ravaged Europe. Scientifically, however, a small cadre of clinicians were becoming increasingly interested in nutrition of the developing world, and set to work defining the problems there. Initial findings spearheaded by FAO and WHO identified kwashiorkor, a striking nutritional disorder, as the principal concern. During the early- to mid-1950s expert committees and nutrition conference became the fertile ground on which to address and publicize nutritional developments. Unicef was expected to be an aid agency and to rely solely on FAO and WHO, the "specialized agencies", for

[36]'Report of the Unicef Executive Board', New York, April 1971, E/ICEF/612, paragraph 85.

technical advice. Inter-agency relations quickly showed some signs of strain while momentum grew for promoting protein-related policies. By the mid-1950s, the nutritionists and the agencies had truly begun to reach out to the developing countries where they perceived protein deficits to be the most pressing concern. Protein concerns led to the formation of the PAG, a group of scientists dedicated to advising the UN agencies on the technical aspects of protein issues.

In Chapter IV, we turn to the initially misguided application of supplementary food programmes in the developing countries on school-aged children, rather than the needier pre-schoolers and infants. We see that protein had attracted the attention of the development community, especially as it fit neatly into the widely practised disease-based approach to medicine. If protein malnutrition were the central ailment, then the delivery of adequate protein would "solve" the deceptively-simple conundrum. Since the lack of a high-protein weaning food appeared to be the primary point of malnutrition troubles, nutritionists sought to develop formulas to address the problem, in part through the PAG. During the late-1950s, new interest and a major report on the relationship between nutrition and infection piqued scientific interest and provided further illumination of the complex nature of malnutrition. FAO, WHO, and Unicef, though frustrated by inter-agency politics, pressed forward with nutrition education programmes (called applied nutrition projects) to target, among other things, ignorance. These endeavours were believed to be more effective than the more popular supplementary feeding schemes. From the field perspective, the distance between headquarters and recipients was growing fast, and philosophical differences about nutritional approach began to rise in prominence.

In Chapter V, which covers the early-1960s, the political rhetoric on nutrition becomes more colourful and ambitious than it had been since the days of Orr. FAO launched its bold Freedom From Hunger Campaign, and a publicity blitz placed hunger and malnutrition in the international spotlight. The agencies continuously searched for new ways to entice governmental support for nutrition programmes and began suggesting that nutritional support could foster economic development. Applied nutrition projects came under fire as positive results were not forthcoming, and Unicef began to acknowledge the importance of having its country operations individualized to meet the variance in local needs. With the initiation of the World Food Programme under the auspices of the UN and FAO, Unicef was able to further de-emphasize feeding programmes and focus on other methods for improving childhood health. The spheres of influence of the PAG continued to expand, and tensions between FAO and Unicef flared. In 1964, in an effort to raise the status of children's nutritional issues,

Unicef called a major international conference at Bellagio which substantively transformed international nutrition discussions.

In Chapter VI, we move to the character of nutrition politics during the late-1960s and the simmering debates over the focus of nutrition policies. The eminence of kwashiorkor as the leading nutritional problem was attacked and contemporaneously, the general nature of nutrition policies also came under fire. Furthermore, newer knowledge of the effects of malnutrition on learning and behaviour suggested that the intellectual potential of hundreds of millions of children was at stake and provided further thrust to nutritional undertakings. Nevertheless, the concept of a protein crisis came to dominate the UN agenda and a global nutrition disaster seemed perched over the horizon.

Chapter VII recounts how the momentum for interest in protein, which had built up during the previous two decades, finally stalled, only to be replaced with similarly ill-fated calls for nutrition planning. Expert committees had a difficult time reaching consensus on the protein requirements necessary for human life, and politics at FAO and WHO witnessed a decline in the importance of nutrition. Applied nutrition programmes attracted some renewed interest just as the world food crisis shifted attention from specific nutrition problems to food deficits. The PAG floundered in its decreased relevance to the UN system, and the World Bank took its first steps in the nutrition field, effectively ending the uniform dominance of WHO, FAO, and Unicef.

Chapter VIII is the final section focused on historical description and closely examines the years 1974 to 1978. This was a time of tremendous change at all the UN agencies dealing with nutrition, and ideological and structural transformations were at work. Intensely analytical nutrition planning was a brief fad for nutrition experts, and their last opportunity in this history to capture the policy makers' full attention. The PAG folded and passed on its legacy to a UN sub-committee on nutrition which elevated the policy makers over the nutrition experts. New studies in malnutrition and infection were pointing toward the possibility that more horizontal development techniques which, for example, dealt with infection, might be as effective as nutritionally-based methods for preventing malnutrition. At roughly the same time, a WHO/Unicef conference established primary health care as the inter-agency approach to improved health, and ostensibly to improved nutrition status.

Finally, in Chapter IX, I provide an overview of the previous chapters with an eye toward elucidating the major changes in nutrition policy and science which brought about the vastly evolved position of nutrition in the UN system by 1978.

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