

Studying Malnutrition in Colonial Africa

Margaret Bray, U3AC Africa Forum, 14th March 2025



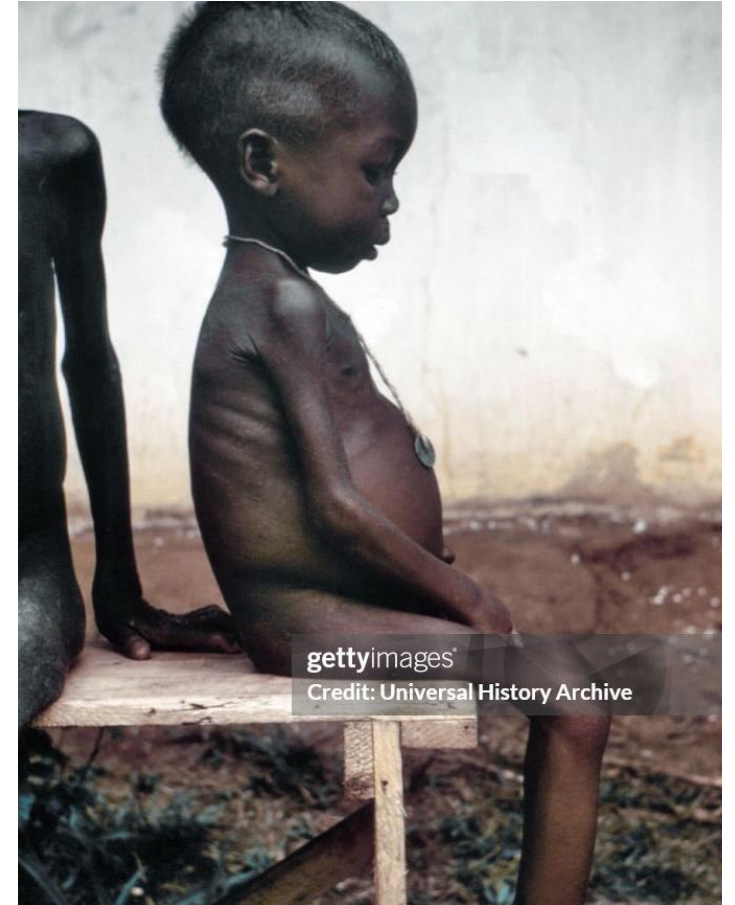
Cicely Williams 1893 – 1992



Hugh Trowell 1904 - 1989

Kwashiorkor

Severe acute malnutrition with oedema



Biafra late 1960s

Cicely Williams

- Jamaica, Bath
- 1917 Oxford preclinical medical training
- Kings College Hospital London, clinical training
- South London Hospital for Women and Children, Clapham
- Queen's Hospital for Women and Children, Hackney, London
 - Mother and Child Clinics

- 1929 Diploma at London School of Hygiene and Tropical Medicine
 - Public Health, entomology, sanitation
 - No child health, minimal on nutrition
- Colonial Medical Service
 - Ghana
 - Sent in disgrace to Malaysia & Singapore

Koforidua, Ghana

- Set up mother and child clinics.
- Learnt the Ga language.
- Visited patients in their homes.
- Discussed diets with mothers.
- Listened to traditional healers.
- Meticulous record keeping on cards.

- Williams (1933) A nutritional disease of children associated with a maize diet
 - *Archives of Disease in childhood*
- Stannus (1934) It's pellagra (niacin, vitamin B3 deficiency)
 - *Archives of Disease in childhood*
- Williams (1935) It's not pellagra
 - *Lancet*
- Onset at weaning suggesting protein deficiency.

Cicely's mentor Dr Helen Mackay of Hackney Hospital encouraged submission and publication.

To Singapore in disgrace

- Dismissed by Selwyn-Clarke, deputy director of health service, Gold Coast
- Personal papers and research notes lost.
- Hated ex-patriate British social life.

Milk and Murder: Rotary Club of Singapore, 1939

Manufacturers employed “nurses” to market tinned condensed milk to mothers.

‘Anyone who, ignorantly or lightly, causes a baby to be fed on unsuitable milk may be guilty of that child’s death...

Misguided propaganda on infant feeding should be punished as the most criminal form of sedition.’

Japanese Occupation of Singapore: 1942 -1945

- Chaos in Singapore hospitals, constant moving of patients
- Changi prison - *"20 babies were born, 20 babies were breastfed, 20 babies survived, you can't do better than that".*
- Cicely was eventually in a tiny very crowded cell, with very little food.
- Very ill.

1948 World Health Organization

Child and Maternal Health Programme

- Health workers who are not doctors
- Training
- Visit and listen to families
- Involve mothers in caring for children in hospitals.

Hugh Trowell 1904 - 1989

- Reigate Grammar School
- Margate TB Sanatorium
- St Thomas's Medical School, London

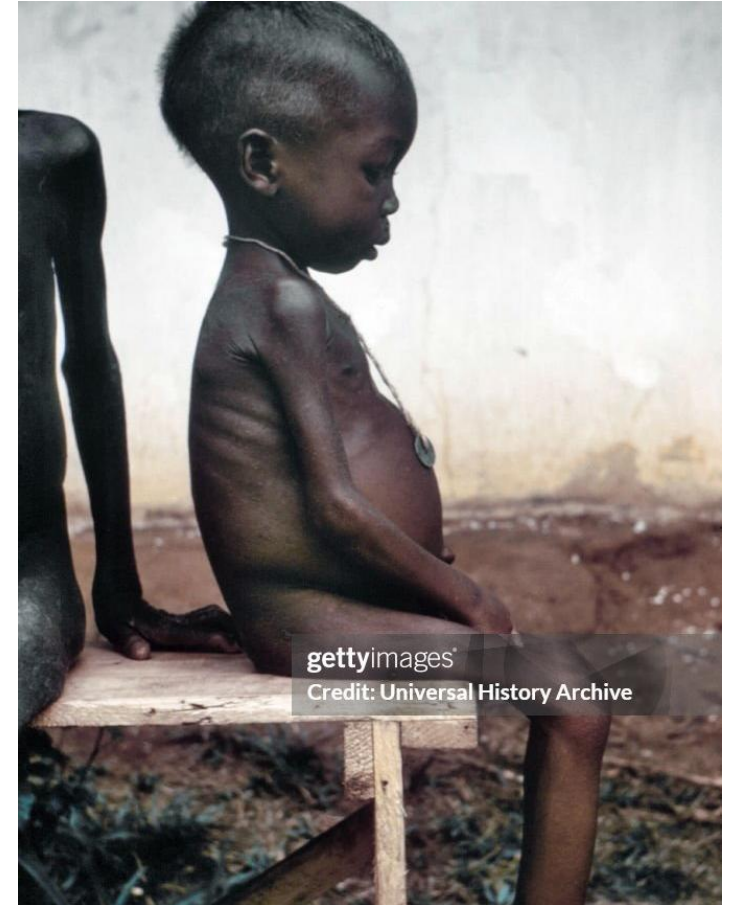
Marriage and Africa

- 1928 Married Margaret Sifton
- 1928 – 29 house jobs St Thomas's Hospital funded by Margaret's father
- Colonial Medical Service
 - Kenya 1929 – 35
 - Uganda 1935 - 59

Kwashiorkor

Severe acute malnutrition with oedema

- Suggested causes
 - Worms
 - Congenital syphilis
 - Pellagra – niacin (vitamin B3) deficiency
 - Multiple infections
 - Protein deficiency
 - Protein and other deficiencies



Biafra late 1960s

Kwashiorkor

- Diagnosis
 - Realization that disease stops pancreas and other digestive organs working
- Treatment then
 - Whole milk is not tolerated
 - Skimmed milk powder and banana
 - Treat malaria, tuberculosis, worms
- Treatment now

Hospital Politics

- Hugh did not get the new Chair in Medicine
 - In the long run allowed time for research.
- Invited to join WHO committee on malnutrition
- Invited to conference in Cameroon,
 - Medical School sent someone else
 - Said Hugh was senile

Medical Examination of 500 African Railway Workers

East African Medical Journal 1948

Part of a larger investigation into the efficiency of Africans on the Kenya and Uganda railways

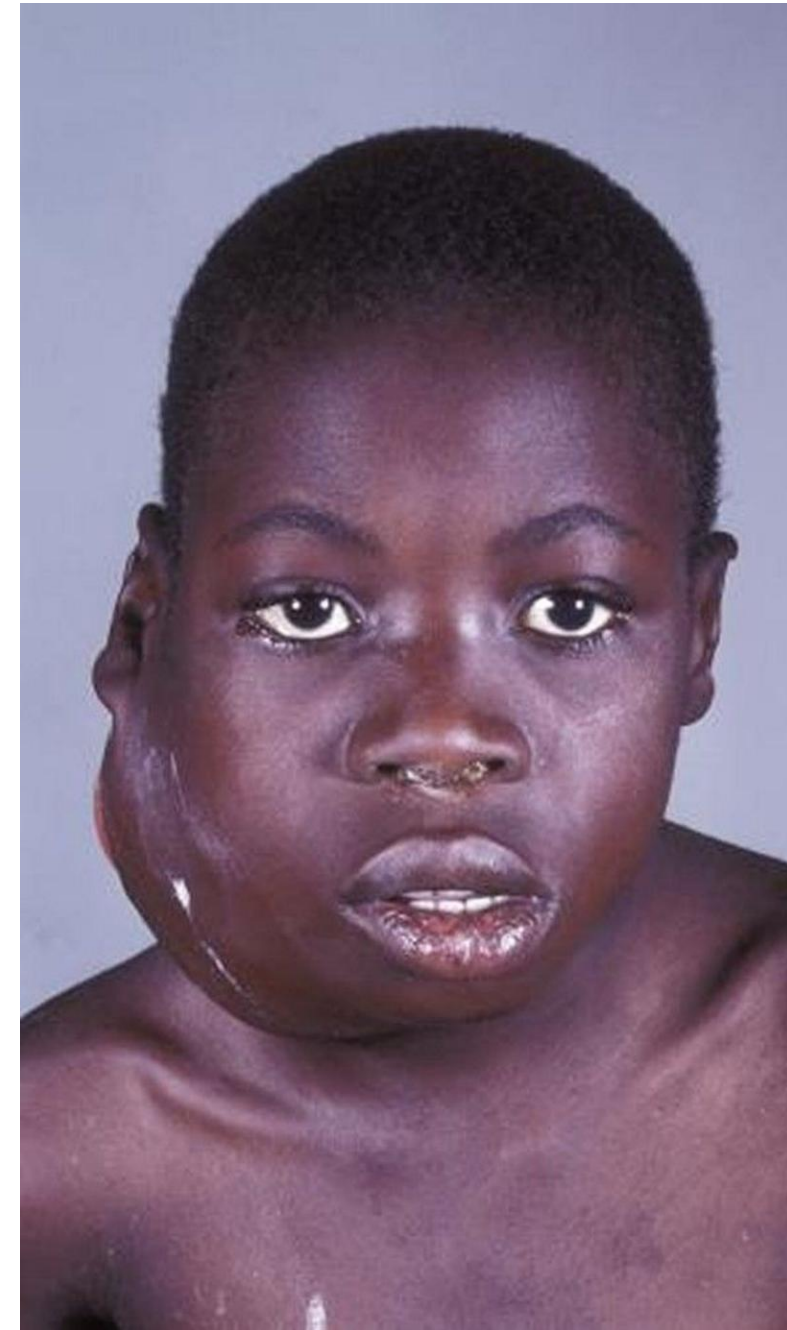
- Visited workers in their homes
- Poverty
- Low wages
- Very poor diet

World Health Organization Report on Kwashiorkor

- Visit to Uganda 1950
- Cicely Williams and Hugh Trowell met
- ‘Hugh, did you know that at Geneva, at WHO, we call this nutrition disease number one in the world?’

Burkitt's Lymphoma

- Epidemiology by post and car.
 - Plotting on a map showed the lymphoma was absent at high altitudes with no malaria.
- Epstein-Barr virus
 - First known cancer causing virus



Western Diseases: their emergence and prevention, Trowell & Burkitt 1981

- Absent or very rare in Africans on a traditional, high fibre, low salt diet
 - Blood pressure rising with age.
 - Obesity
 - Type 2 diabetes
 - Cerebrovascular disease, stroke
 - Coronary heart disease