



Considerations for the Health System for Addressing the Double Burden of Malnutrition

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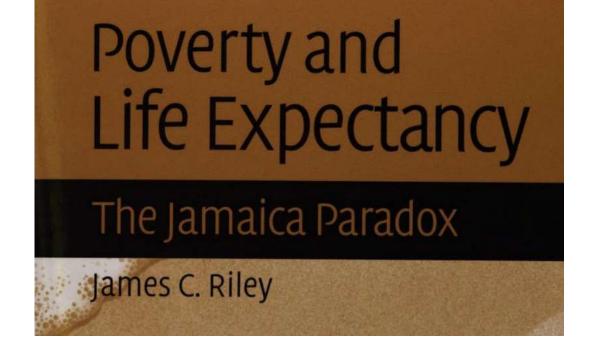
International Symposium
Understanding the Double Burden of Malnutrition for
Effective Interventions
Vienna, Austria. 10 – 13 December 2018

Health is a Social Challenge NOT a Medical Problem



Food availability
Individual
Population
Quantity, quality

Individual
Population
Concern for vulnerability
Biological, sociological



Individual vs Community
mutual support for better practice

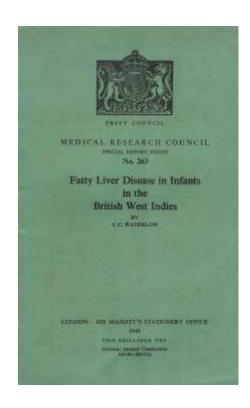
Healthy opportunity for growth vs unhealthy options insist on best environment for children

empower and enable women

Leadership

government and their health advisors

John Waterlow TMRU, Jamaica Application of isotopic methodologies, 1960



Non-alcoholic fatty liver disease

WHO Treatment Manual

Severe Malnutrition

1981

The treatment and management of severe protein-energy malnutrition



Schofield & Ashworth, 1993

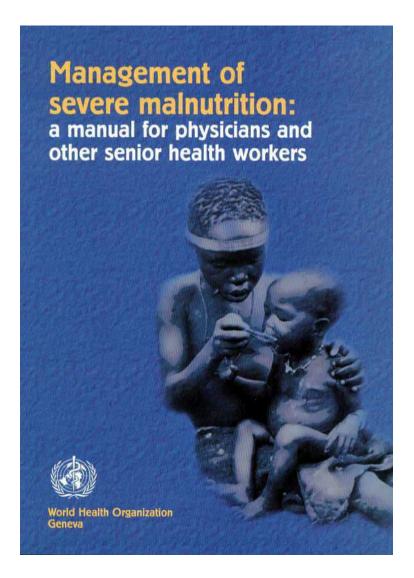
Management of Severe Malnutrition

Case Mortality over 20%

Good case management less than 5 - 10%

	Case Fatality%	
1950's	20	9 - 50
1960's	26	11 - 53
1970's	25	16 - 37
1980's	14	3 - 53
1990's	22	4 -34

Revised WHO Guidelines, 1999 Doing Simple Things Well



Nutritional Lens

Effective care counterintuitive

Good basic science to characterise metabolic phenotype, to enable translation to effective clinical care

Reductive adaptation: protein turnover

Specific nutrient deficiencies K+, Zn.

Silent infection, stressors

Ten point structured care

WHO: ten steps to treating severe malnutrition

Activity	Initial treatment		Rehabilitation	Follow-up
	days1-2	days 3-7	weeks 2-6	weeks 7-26
Treat or prevent:				
hypoglycaemia				
hypothermia				
dehydration				
Treat infection			-	
Correct electrolyte imbalance				
Correct micronutrient deficiencies	← wi	thout iron ———>	with iron ———	
Begin feeding			•	
Increase feeding to recover lost weight ("catch-up growth")				
Stimulate emotional and sensorial development				
Prepare for discharge				→

Successes: % dying before and after implementation of WHO guidelines

Before After

Brazil (IMIP)	31%	11%
Ecuador	70%	8%
India	17%	3%
Myanmar	18%	9%
Bangladesh (ICDDR)	19%	3%

Source: Ashworth-Hill & Khanum (2002)

Community Based Care: Severe Acute Malnutrition



Active case finding
Assessment for
severe acute malnutrition

degree of wasting

Treat:

Ready to Use Therapeutic Food RUTF

COMMUNITY-BASED MANAGEMENT OF SEVERE ACUTE MALNUTRITION

A Joint Statement by the World Health Organization, the World Food Programme, the United Nations System Standing Committee on Nutrition and the United Nations Children's Fund **DEVELOPMENT CONTEXT?**

IUNS Malnutrition Task Force: Tanzania 2006

Integrated Management of Malnutrition Nutritional status (anthropometry)

Normal

Food security

Mild to moderate malnutrition, stunting

Supplementary feeding

Severe Acute Malnutrition

Therapeutic food

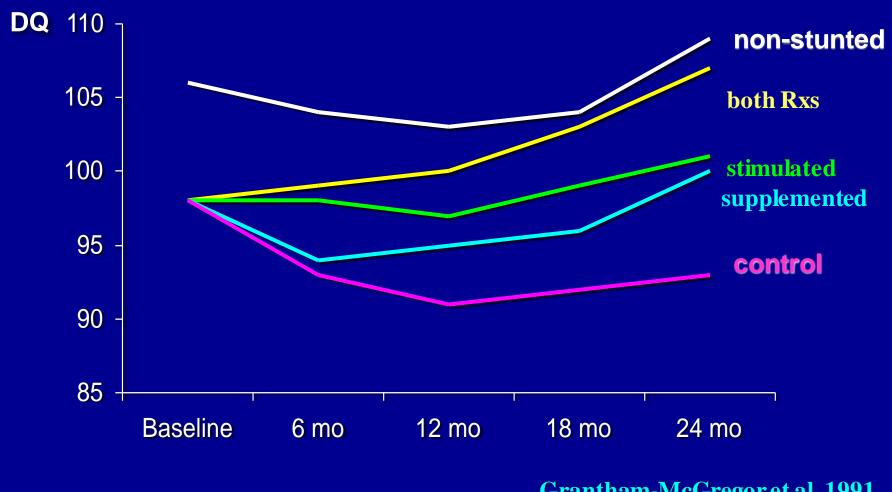
Severe Acute Malnutrition - oedema

- oedema

- appetite loss

Facility based care

Remedial supplementation + stimulation: RCT with Jamaican stunted children



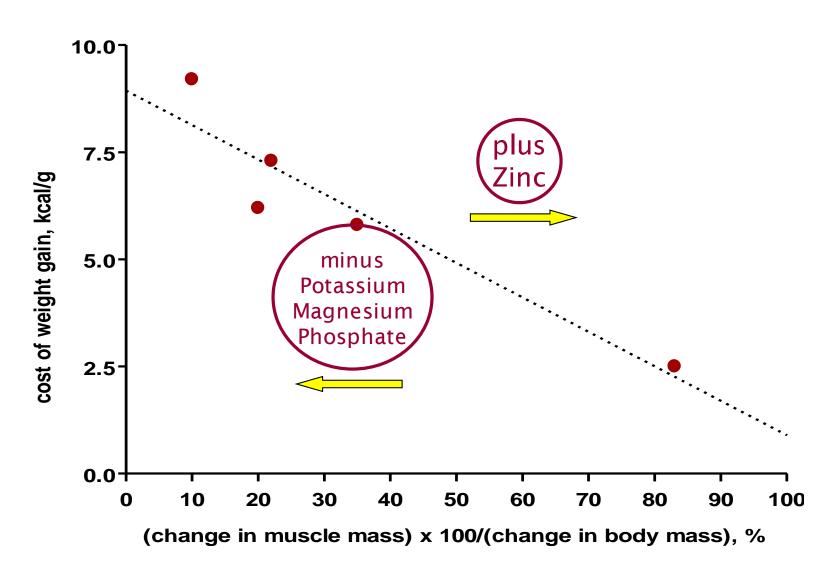
Grantham-McGregor et al, 1991

Jamaica Home Visiting Intervention Study

Quantity versus Quality: recovery of lost weight

Cost of Growth in relation to Change in Body Composition during recovery from severe malnutrition

Jackson, 1977



School of thought

dynamic tension, equipoise adaptation, resilience multilevel systems problem solving

Aspire after excellence

intellectual enquiry, creative reflection address real problems of practical significance adopt/adapt state of the art technologies

Trust

people, share, mentor, high expectations honesty, openness, transparency organised application – efficiency research delivery pipeline discovery, efficacy, effectiveness, going to scale



Malnutrition eLearning: International Malnutrition Task Force Pre-service training and in-service training

Increased knowledge.

Changed attitudes.

Changed behaviour

Changed organisation and delivery of practice

Improved identification and treatment

Saved lives.

Model: Community Based Approach

Create an Environment/People Centred Health Systems

Cannot do it TO people – pharma model

Have to do it for themselves: help, encourage, enable

Age-friendly communities that foster support for younger and older age groups

Community based care: fit for purpose, context specific

Develop skilled capability

Role of Stressors