

Contents

Part I Introduction

1	India's Nutrition Scenario: Issues and State Response	3
1.1	What Underlies India's Nutrition Crisis?	7
1.2	The Gender Effect	8
1.3	The Link Between Adult and Child Undernutrition.	10
1.4	Government Response: Nutrition Policy Framework and Key Interventions	11
1.5	Interventions Ensuring Availability	11
1.6	Interventions Ensuring Access	13
1.6.1	The Public Distribution System (PDS)	13
1.6.2	National Programme of Nutritional Support to Primary Education (NP-NSPE)	14
1.6.3	Nutritional Support for Women and Girls	16
1.6.4	Other Schemes to Ensure Family Food Security	16
1.7	Interventions to Improve Absorption	17
1.8	The Right to Food	18
1.9	The National Food Security Act	22
	References	25
2	Changing Calorie Consumption and Dietary Patterns	29
2.1	Calorie Consumption Status of the Indian Population	31
2.2	Trends in Calorie Consumption	31
2.3	Trends in Food Expenditure	33
2.4	Changes in Dietary Patterns	35
2.5	Determinants of Nutrition Status	36
2.6	Nutrition Outcomes: Best and Worst Performing States	38
2.7	Rural–Urban Variations in Nutrition Outcomes	43
	References	46

Part II Issues and Concerns

3	Does Gender Still Determine Nutrition Status?	49
3.1	Gender Differentials in Survival and Health	50
3.2	Disparity in Access to Nutritious Foods	52
3.3	Gender Disparities in Child Nutrition Indicators and Caring Practices	53
3.4	Summing Up	59
	References	60
4	The Costs of Persisting Adult Undernutrition	63
4.1	Physiographic Indicators and Work Performance	64
4.2	Underweight, Morbidity and Mortality	68
4.3	Socio-Economic Impacts	70
4.4	The Costs of Underweight	70
4.5	Underweight as a Public Health Issue	72
4.6	Estimating the Costs of Adult Underweight	72
4.7	Estimating the Costs of Adult Underweight in Selected Asian Countries	74
4.8	Adult Underweight in India: State-wise Analysis	75
4.9	Differential Costs of Severity of Underweight Prevalence	78
	References	87
5	Why Child Undernutrition Persists in India	91
5.1	Some Correlates of Undernutrition	93
5.2	Exploring the Relationships Further	95
5.3	Child Undernutrition in India: A Spatial Analysis	97
5.4	Changes in Child Nutrition Status over Space and Time	98
5.5	Do Existing Nutrition Interventions Adequately Address Child Undernutrition?	101
5.6	Does the ICDS Respond to Needs?	103
5.7	Assessing ICDS Performance	104
5.8	Reality Check	105
5.8.1	Findings	112
5.9	Conclusions	112
	References	113
6	Exploring Child Undernutrition Further: Best and Worst Case Scenarios	115
6.1	Indicators of Child Malnutrition	115
6.2	The Impact of Mothers' Education and Awareness	117
6.3	Mothers' Ability to Provide Adequate Care	118
6.4	Utilizing the ICDS	119

6.5	Changes Over Time	121
6.6	Comparing Family Nutrition Status in the Best and Worst Performing States	122
	References	126
7	The Additional Burden of Anaemia.	127
7.1	Iron Deficiency as a Public Health Problem.	128
7.2	Causes.	129
7.3	The Impacts of Iron Deficiency Anaemia	130
7.3.1	Development of Children.	131
7.3.2	Cognition.	132
7.3.3	Growth	133
7.3.4	Adult Work Capacity	134
7.4	Anaemia in India	135
7.5	The National Nutritional Anaemia Control Programme	140
	References	144
8	Do Nutrition Interventions Work in the Field? Reality Check . . .	149
8.1	Gumla.	149
8.1.1	Mid-Day Meals	150
8.1.2	ICDS.	151
8.1.3	PDS	154
8.1.4	Household Food Security.	155
8.2	Jaisalmer.	156
8.2.1	Mid-Day Meal	157
8.2.2	PDS	158
8.2.3	Household Food Security.	158
8.2.4	Health and Sanitation	159
8.2.5	Infant Feeding Practices.	159
8.2.6	Community Nutritional Status	159
8.2.7	ICDS.	160
	References	163
9	Factoring Climate Change into the Nutrition Scenario.	165
9.1	Why Climate Change is so Important in the South Asian Context	165
9.2	The Existing Scenario	167
9.2.1	Food Security and Nutrition.	167
9.2.2	Morbidity and Mortality	169
9.3	The Expected Scenario with Climate Change.	170
9.3.1	Impacts on Food Security and Nutrition	170
9.3.2	Increases in Morbidity and Mortality.	171
9.3.3	The Economic Costs of these Impacts.	172

9.4	Preparing for Climate Change	173
9.5	Summing Up	176
	References	177

Part III In Search of Solutions

10	A Family-Based Approach to Nutrition	181
10.1	Existing Nutrition Interventions	181
10.2	Methodology	185
10.3	Analysis	186
10.3.1	Poverty and Undernutrition: The Global Scenario . . .	186
10.3.2	Gender Disparities in the Prevalence of Undernutrition	189
10.3.3	Regional Variations in Adult Undernutrition	192
10.3.4	The Poverty–Undernutrition Cycle in India	195
10.3.5	Findings	197
10.4	Conclusions	199
	References	200
11	Making the ICDS Effective	201
11.1	Assessing ICDS Performance	202
11.2	Independent Evaluations of the ICDS	202
11.3	Does the ICDS Reach the Undernourished?	206
11.4	Identifying Problems in ICDS Implementation	207
11.5	Conclusions	212
	References	213
12	Improving Nutrition Status: Lessons from International Experience	215
12.1	Celebrated Successes	215
12.1.1	Thailand	215
12.1.2	China	217
12.1.3	Brazil	218
12.1.4	Mexico	219
12.2	Recent Successes	221
12.2.1	Bangladesh	221
12.2.2	Malawi	223
12.2.3	Mozambique	224
12.2.4	Peru	225
12.3	Summing Up	226
	References	227

Part IV Conclusions

13 Fast Tracking Nutritional Improvements in India	231
13.1 Dominant Factors Underlying the Country's	
Poor Nutrition Status	231
13.1.1 The Continuing Role of Food Insecurity	231
13.1.2 The Negative Effect of Unbalanced Diets	232
13.1.3 Unhealthy Trends in Food Choices	232
13.1.4 Lack of Responsive Programming.	233
13.1.5 Failure to Identify a Nodal Ministry for Nutrition. . .	233
13.1.6 Overlooking the Need for a Family-Based	
Approach.	234
13.1.7 Ineffective Behaviour Change	
Communication Strategies	235
13.1.8 Inefficient Functioning	
of Government Interventions	235
13.1.9 Rigid Compartmentalization	
and Inflexible Strategies	235
13.1.10 Lack of Community Ownership	236
13.1.11 Failure to Employ Conditionality Clauses	236
13.2 Fast Tracking Improvements in Nutrition Status.	237
13.2.1 Food-Based Factors.	237
13.2.2 Programme-Based Factors	239
13.2.3 People-Based Factors	239
13.3 Recommendations.	240
 Erratum to: Changing Calorie Consumption and	
Dietary Patterns	E1

Persisting Undernutrition in India
Causes, Consequences and Possible Solutions
Ramachandran, N.
2014, XXV, 241 p. 41 illus., Hardcover
ISBN: 978-81-322-1831-9