

# CONTENTS

---

Preface . . . . .	v
Acknowledgements . . . . .	vii
Introduction . . . . .	1
Vitamin A metabolism . . . . .	3
Vitamin A status . . . . .	6
Xerophthalmia: clinical classification and diagnosis . . . . .	8
XN. Night blindness . . . . .	9
X1A, X1B. Conjunctival xerosis and Bitot's spot . . . . .	9
X2. Corneal xerosis . . . . .	11
X3A, X3B. Corneal ulceration/keratomalacia . . . . .	11
XS. Scars . . . . .	12
XF. Xerophthalmic fundus . . . . .	12
Epidemiology . . . . .	15
Age . . . . .	15
Sex . . . . .	16
Season . . . . .	16
Clustering . . . . .	17
General pattern of xerophthalmia . . . . .	17
Magnitude and distribution of the problem . . . . .	18
Characterization and assessment of the problem . . . . .	19
Preliminary assessment . . . . .	19
Definitive assessment . . . . .	21
Prevalence surveys . . . . .	22
Clinical parameters . . . . .	22
Biochemical parameters . . . . .	25
Dietary parameters . . . . .	26
Preparatory data . . . . .	27
Sample size . . . . .	27
Selection of sample . . . . .	28
Forms . . . . .	30

Personnel and field activities . . . . .	31
Data analysis . . . . .	32
Interpretation . . . . .	33
<hr/>	
Treatment . . . . .	36
Xerophthalmia . . . . .	36
Vitamin A . . . . .	36
Medical status and diet . . . . .	37
Eye care . . . . .	38
Preventing recurrence . . . . .	38
Measles and other high-risk infections . . . . .	39
Other high-risk groups . . . . .	39
Logistics . . . . .	40
<hr/>	
Prevention . . . . .	41
Increased intake of dietary sources of vitamin A . . . . .	42
Periodic supplementation . . . . .	43
Fortification of dietary items . . . . .	46
Evaluation . . . . .	47
<hr/>	
References . . . . .	49
<hr/>	
Annexes	
1. Clinic-based case-reporting form . . . . .	54
2. Examining eyes in the field . . . . .	55
3. Collecting and handling blood samples in the field . . . . .	57
4. Xerophthalmia field survey forms . . . . .	59
<hr/>	
Additional reading . . . . .	66