

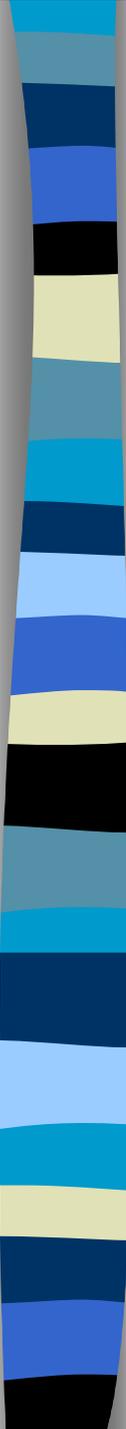
# AMREF EXTERNAL QUALITY ASSESSMENT SCHEME (EQAS) FOR PRIMARY HEALTH CARE LABORATORIES

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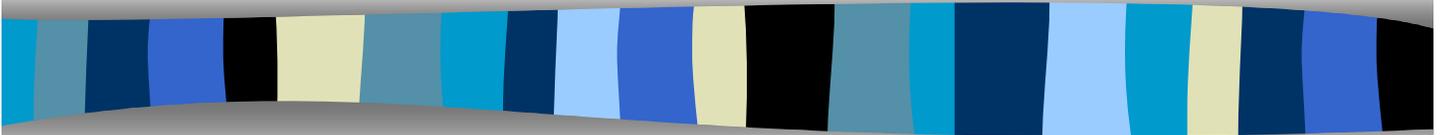
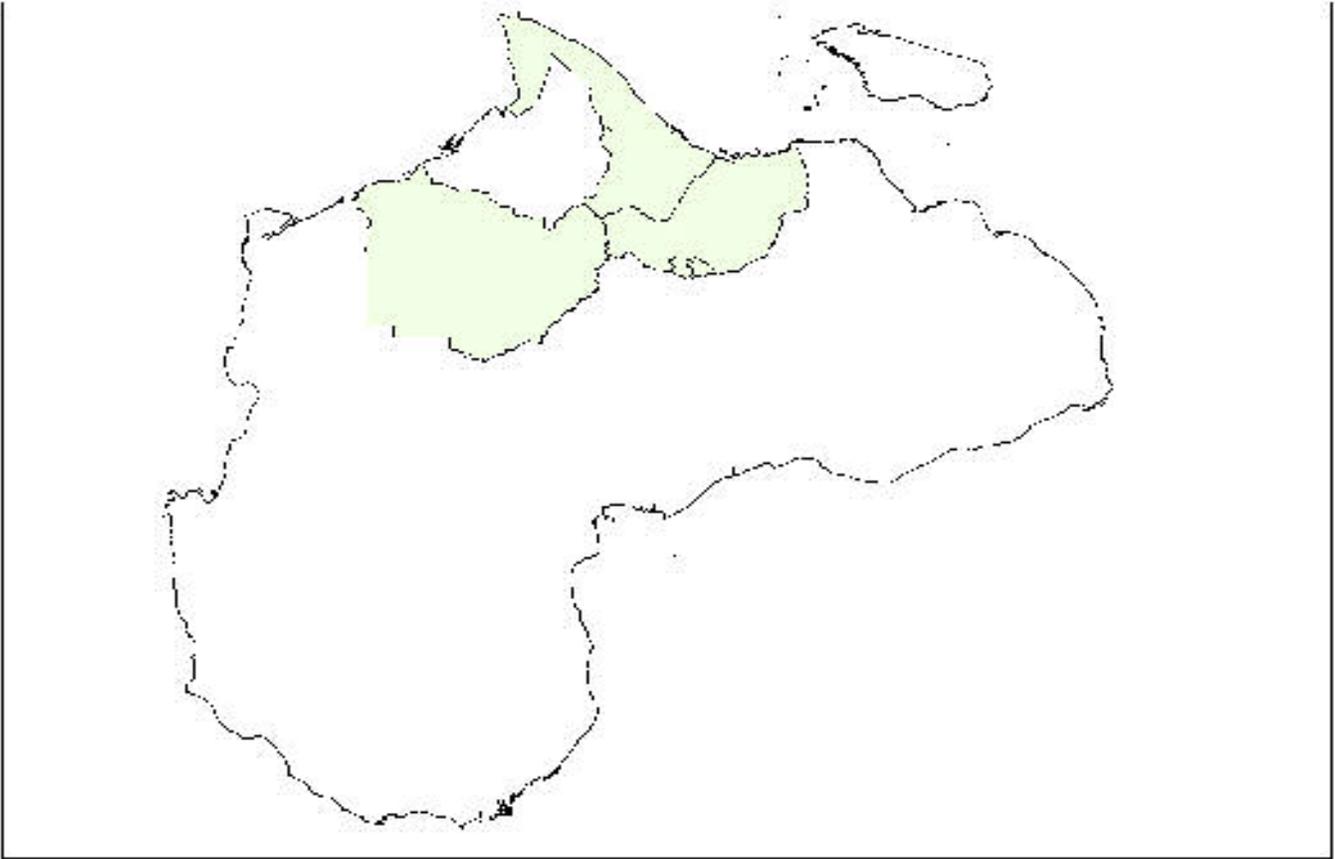
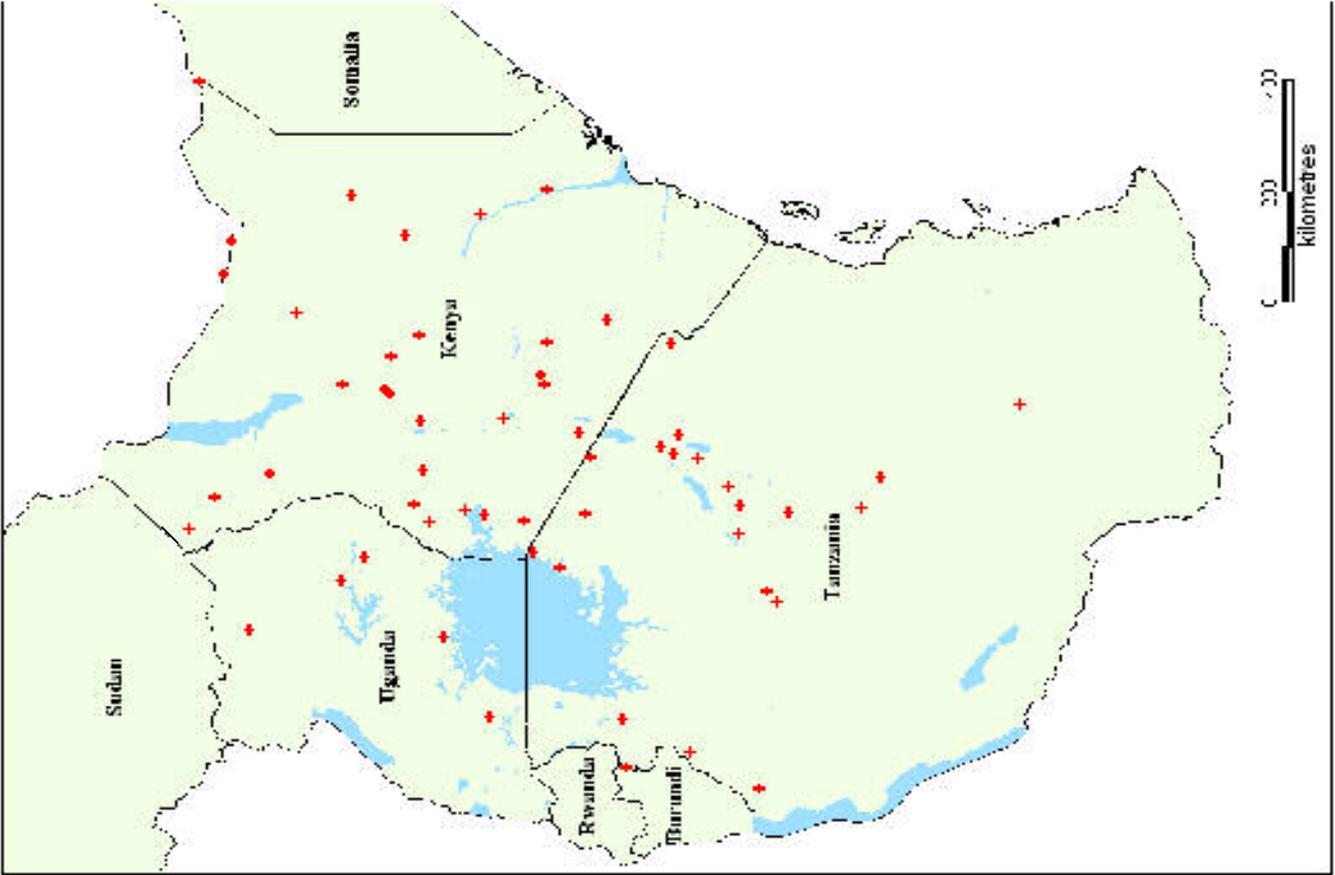
AMREFLaboratoryProgramme

AfricanMedicalandResearchFoundation(AMREF),  
Nairobi,Kenya



## OBJECTIVES OF THE AMREF EQAS

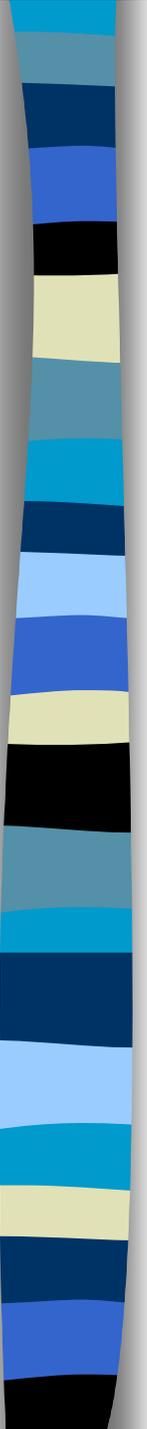
- Measure laboratory performance
- Identify and rectify problem areas
- Provide continuing education
- Evaluate training activities
- Standardize techniques
- Improve communication between clinical, laboratory and public health staff





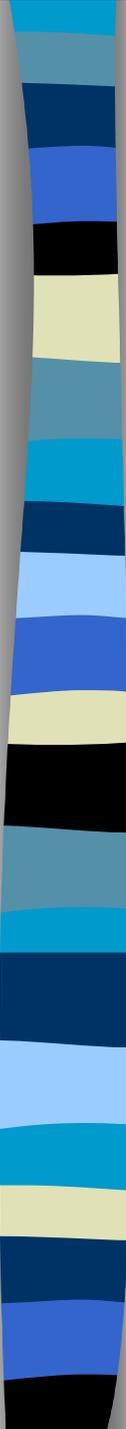
## METHODS

- Selection of laboratory tests
- Production of laboratory materials
- Clinical problem setting
- Clinical, laboratory & public health questions
- Answersheet
- Marking key



## TESTS ADDRESSED

- Thickbloodfilmforbloodparasites
- Thinbloodfilmforbloodcellmorphology
- Haemoglobinestimation
- Stoolforparasites
- Urineforparasites
- ZiehlNielsenstaining
- Gramstaining



## MATERIALS PRODUCED: 1993-2000 (1)

- Thick blood films for malaria parasites
- Thin blood films for red cell morphology
- Thin blood films for differential white blood cell count
- Haemoglobin cyanide solution
- Haemoglobin lysate



## MATERIALS PRODUCED: 1993-2000 (2)

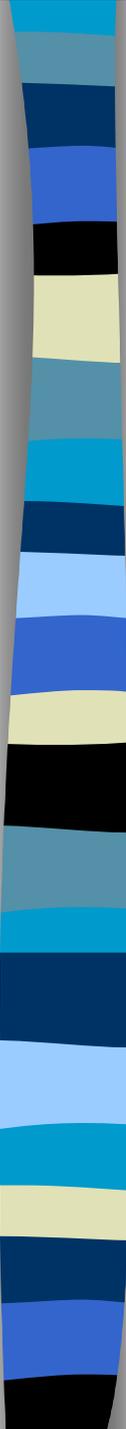
- Stool forova ( *Smansonii*, hookworm, *Alumbricoides*, *Taenia* sp)
- Urine forova ( *Shaematobium* )
- Stained stool smear for *Cryptosporidium*
- Sputum smear, fixed, stained/unstained for AFB
- CSF smear, fixed, unstained for bacteria



## ASSIGNING VALUES FOR HAEMIGLOBINCYANIDE & LYSATE

- 4 AMREF Laboratory Technologists in the AMREF central laboratory
- 5 Reference Laboratories in Nairobi
- Mean values from participating laboratories\*

\*Being reviewed



## DISPATCHING AND RECEIVING

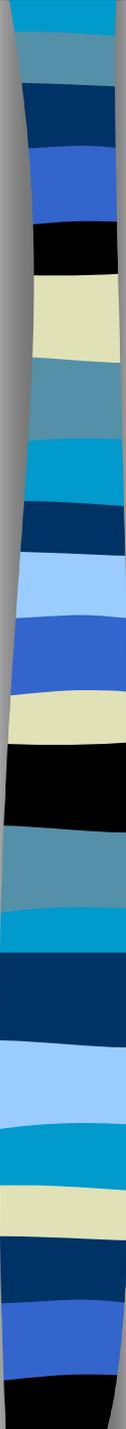
- AMREFSspecialistOutreachflights
- Postalservices
- Handdelivery:Fieldstations

NGOs



## MARKING

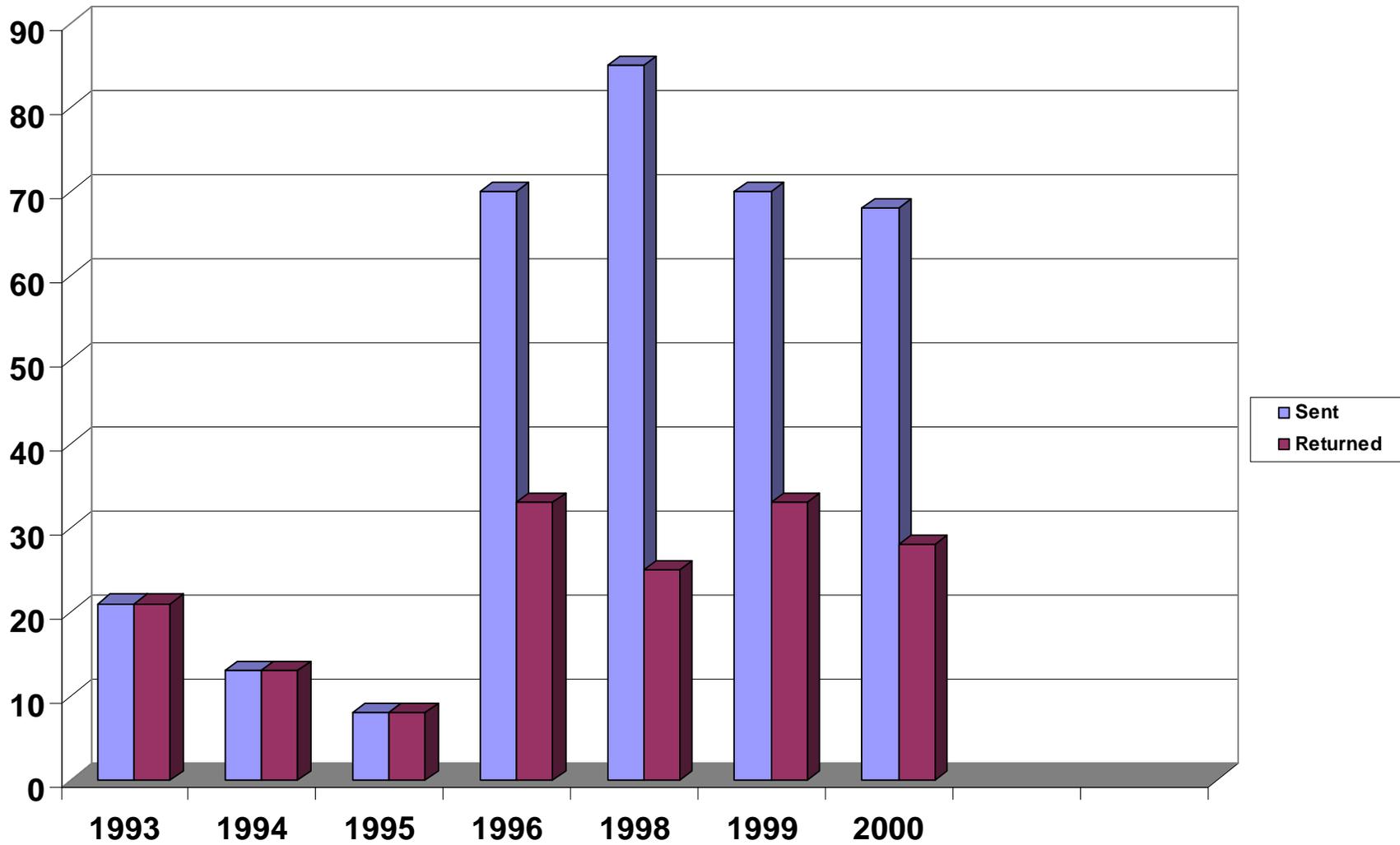
- 2 AMREF technologists independently
- Consensus score for each participating laboratory
- Scoring system:
  - 3 marks: fully correct
  - 2 marks: partially correct/acceptable
  - 1 mark: some correct interpretation
  - 0 mark: wrong/misleading/no answer



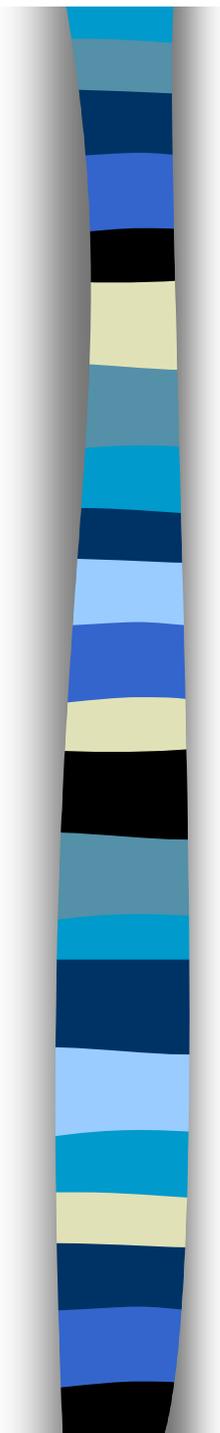
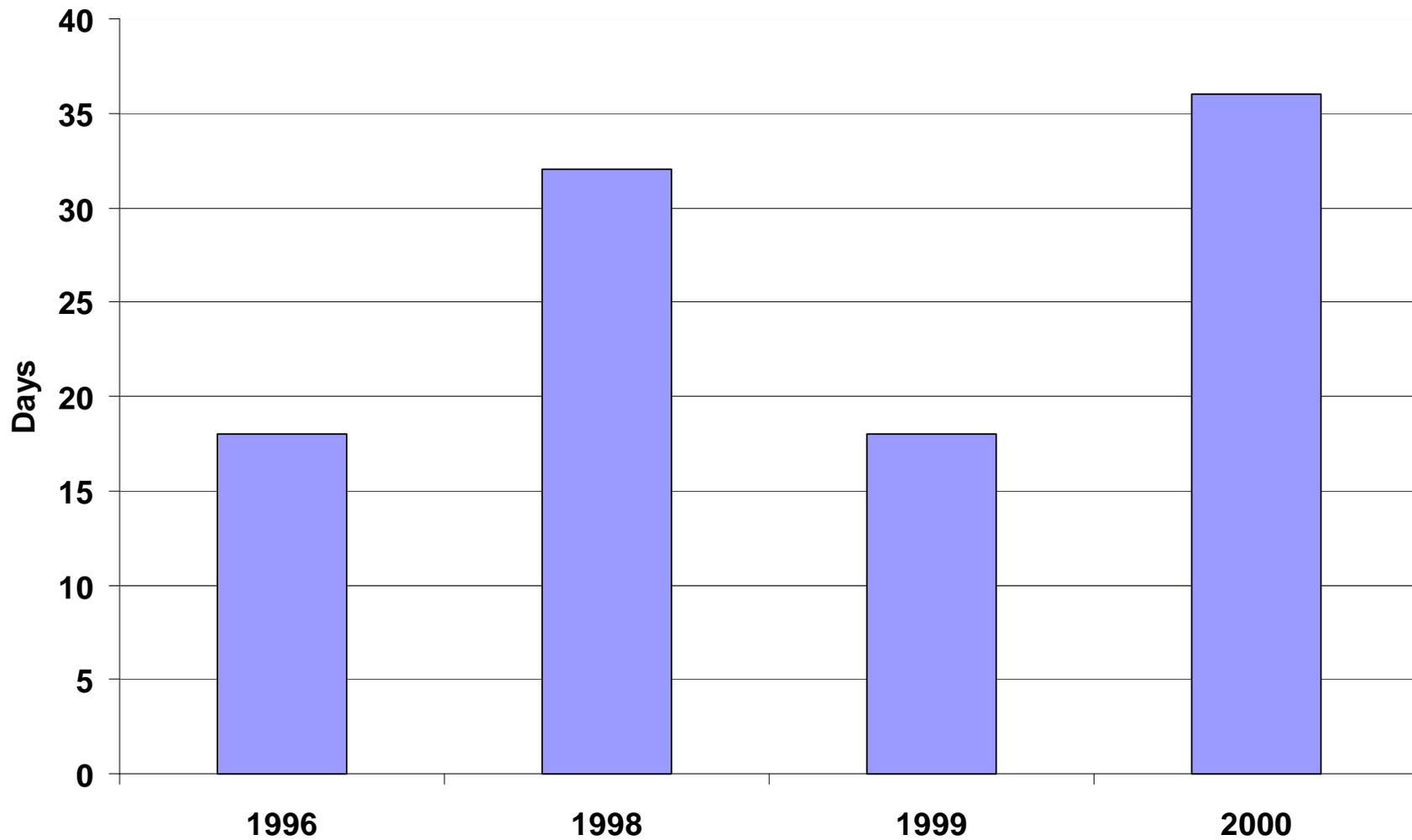
## FEEDBACK TO PARTICIPANTS

- Participant's mark
- Highest and lowest scores
- Correct answers
- Possible reasons for error & suggestions for improvement
- Health learning materials
- On-site visits
- Discussion with hospital authorities

# DISTRIBUTIONS SENT AND RETURNED



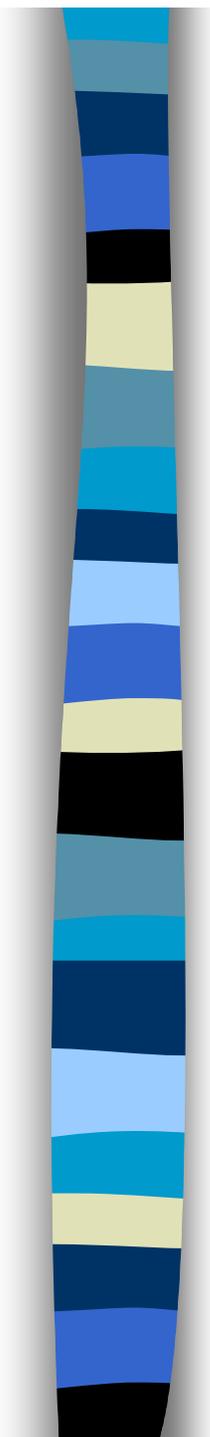
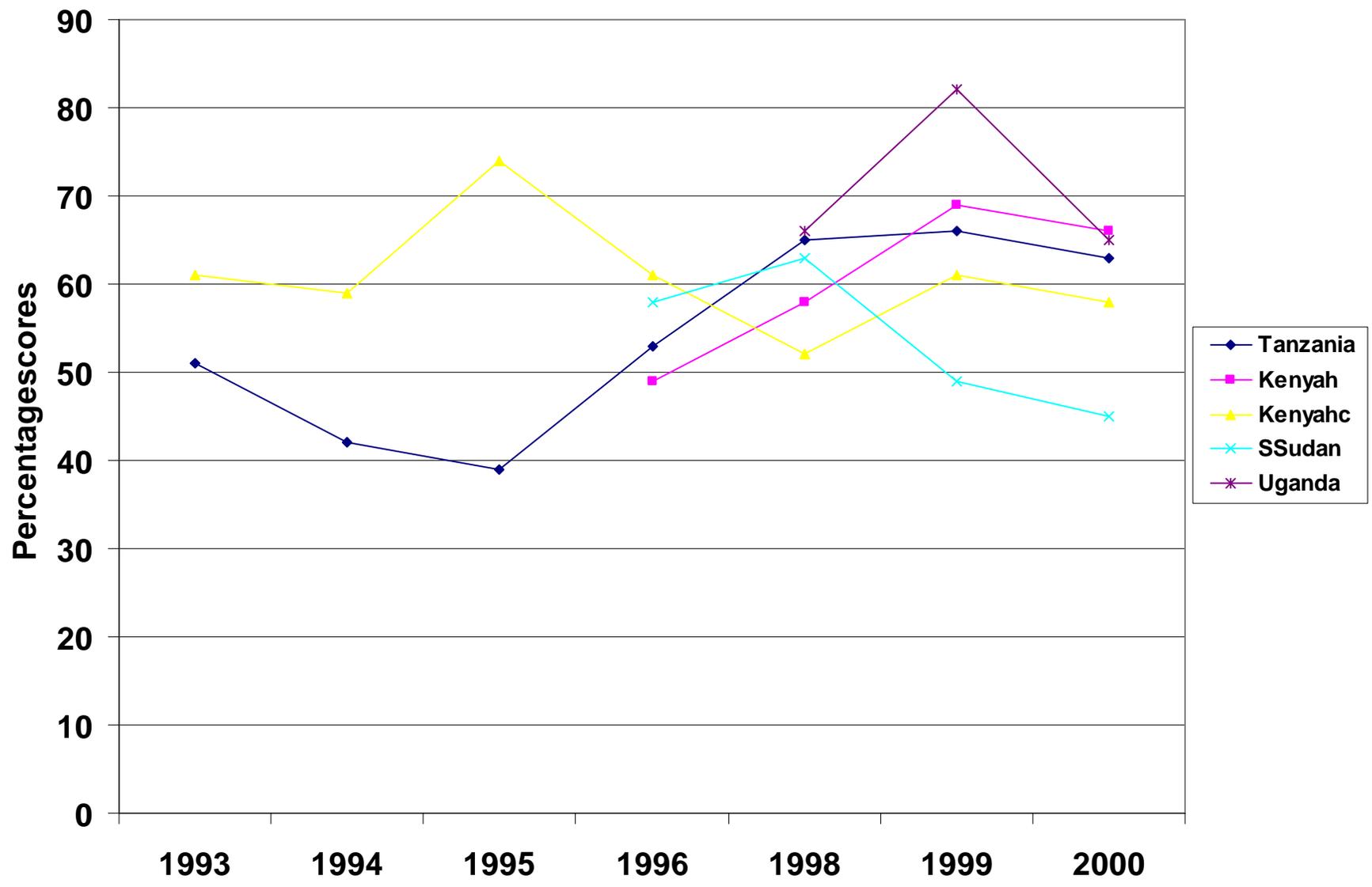
# RESPONSE TIME



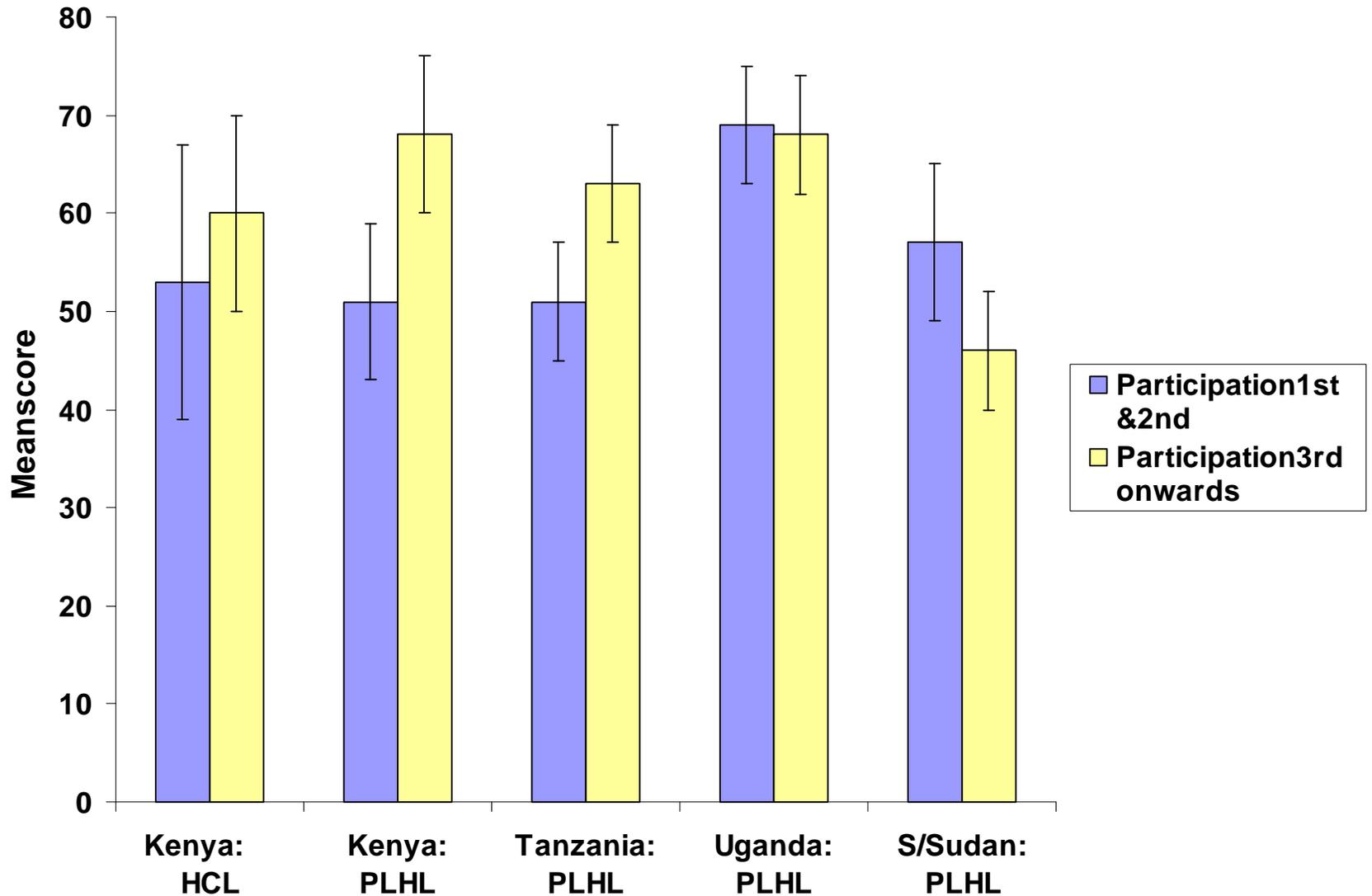
# NUMBER OF PARTICIPATING LABORATORIES

	1993	1994	1995	1996	1998	1999	2000
<b>Tanzania:</b>							
hospitals	11	6	5	13	7	26	23
health centres	-	-	-	-	-	1	1
<b>Kenya:</b>							
hospitals	-	-	-	10	3	12	6
health centres	10	6	2	9	10	14	12
<b>SSudan</b>	-	-	-	1	1	6	6
<b>Uganda</b>	-	-	-	-	3	4	7
<b>Somalia</b>	-	1	1	-	1	-	-
<b>TOTAL</b>	<b>21</b>	<b>13</b>	<b>8</b>	<b>33</b>	<b>25</b>	<b>63</b>	<b>55</b>

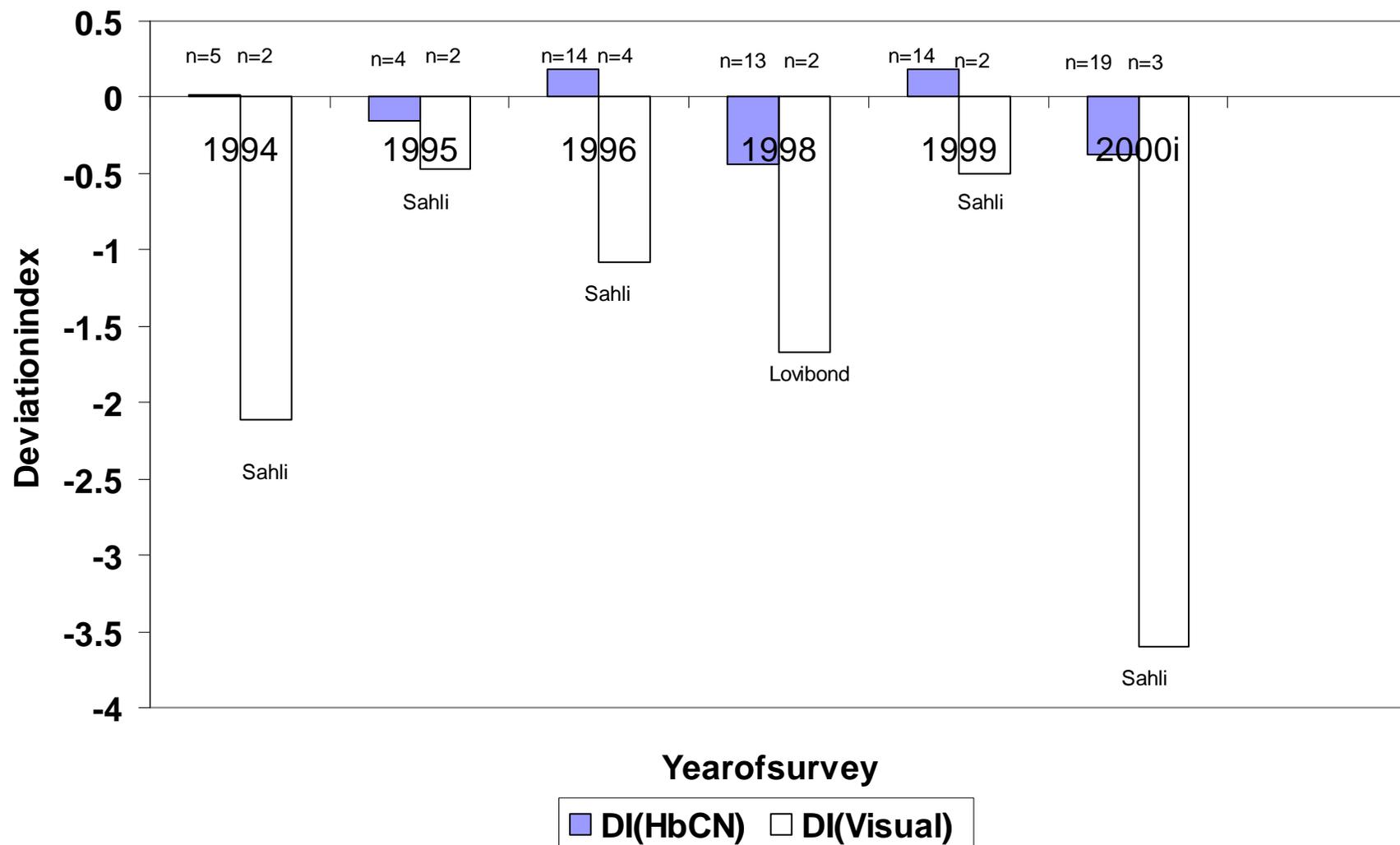
# AVERAGE SCORES



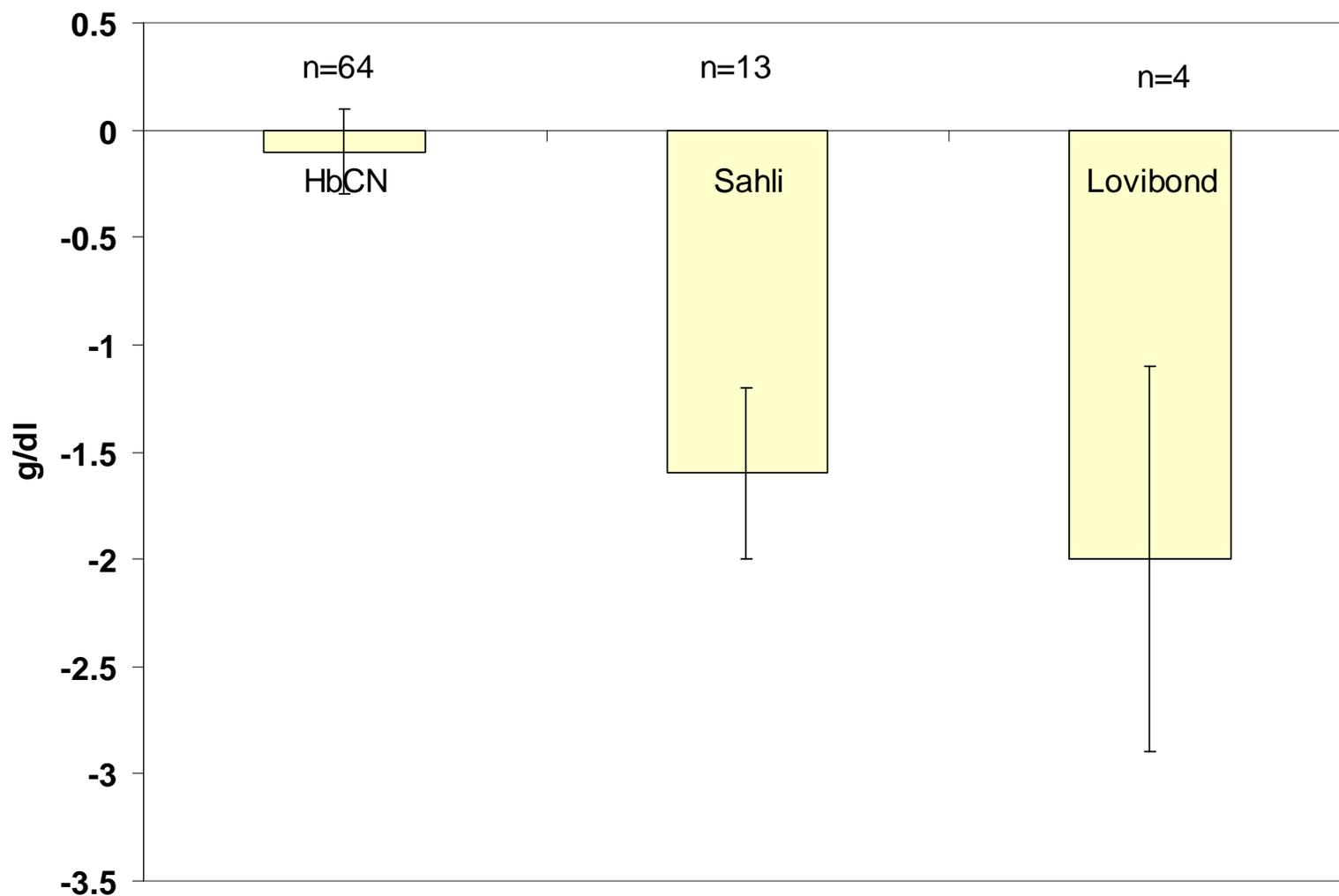
# FACILITY IMPROVEMENT ASSESSMENT MINIMUM 4 DISTRIBUTIONS

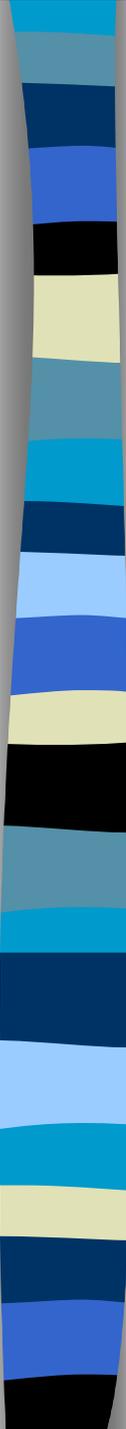


# HAEMOGLOBIN METHODS EVALUATION BY EQAS



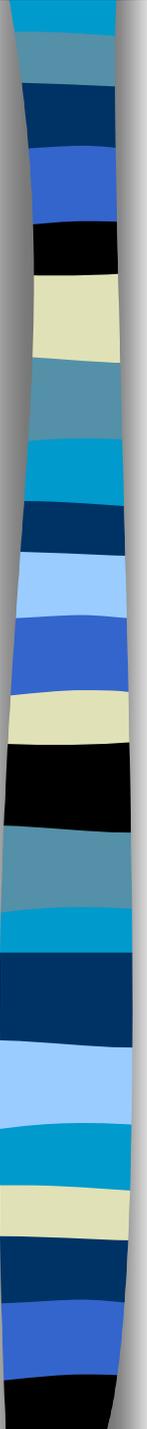
# MEAN DIFFERENCE IN HAEMOGLOBIN RESULTS FROM TARGET VALUES





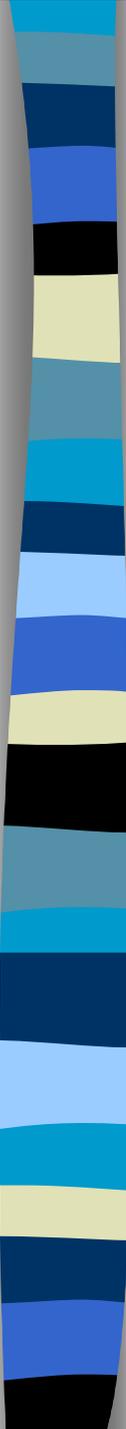
## CHALLENGES AT LABORATORY LEVEL

- Few trained laboratory personnel
- Shortage of equipment and supplies
- Equipment failure
- No reference books or materials
- Low morale



## CHALLENGES AT AMREF

- Poor postal services
- Low response rate
- Few laboratory personnel
- Inadequate space
- Funding



## FUTURE PLANS FOR A REGIONAL PROGRAMME (REQAS)

- Cooperation between Kenya, Tanzania & Uganda
- Establishment of qualitative standards
- Preparation of SOPs, quality manuals
- Large scale preparation of materials
- Coordinating centre
- Mechanism for remedial action
- Dedicated funding