A survey was done in 3 districts of state of Assam to find out the prevalence of anterior segment ocular pathology due to vitamin A deficiency (Xerophthalmia) among the children of 0 to 12 years of age. The study was done during the period of June, 1977 to October, 1978. The field team which conducted the survey work composed of one senior ophthalmologist, 3 ophthalmology residents and one health visitor and one driver cum assistant from the Department of Ophthalmology, Gauhati Medical College. As the food habit, economic condition and nutritional status of the inhabitants of rural, urban and tea-garden areas are different, sample survey was done separately in those different areas.

The survey team visited 20 sample sites of the 3 districts where all the children below the age of 12 years were arranged to be assembled. In the Urban areas the survey was conducted in different primary schools and slum areas (Harijan Basti). In tea-garden areas all survey works were conducted in the garden hospitals, the doctor in-charge of which brought all children of the labour colony after prior arrangement.

The incidence of xerophthalmia was also surveyed in children attending the Eye and Paediatric Out Patient Departments of Gauhati Medical College Hospitals during the period from June, 1977 to October, 1978.
MAP OF ASSAM INDICATING THE LOCATION OF THE SAMPLE SITES
Following is the list of the various sample sites:

Urban areas:
1. Gauhati city — M.C.M.E school, Uzanbazar,
   - Kamakhya Vidyapith and
   - Maligaon L.P. school,
   - Gandhibasti (Harijan colony),
   - Rupnagar (Residential area).
2. Hojai Town, Nowgong.

Rural areas:
1. North Gauhati L.P. school and surrounding villages.
2. Birkuchi, Narangi.
3. Hajo Primary school.
4. Rani village.
5. Amchoi village.
7. Mirza.
10. Sainadi village, Hajo.
11. Agiathuri village.
12. Mengrabari village.
13. Checha village.

Tea gardens:
1. Nagrijuli Tea Estate.
2. Kopati Tea Estate.
3. Amchoi Tea Estate.
4. Sonapur Tea Estate.
5. Tangani Tea Estate.

In each field visit the health visitor was engaged in compiling identifying data and socio-economic status of each child from a responsible person accompanying the child. The senior ophthalmologist and the Junior ophthalmology residents examined the anterior segment of every child's eye with a handlight and used a magnifier whenever necessary, flipped the eyelids where indicated, noted obvious abnormalities, and determined whether the clarity of the media was compatible with visual acuity better or worse than 6/60. Special attention
was paid to those lesions potentially related to active xerophthalhnia (conjunctival xerosis, Bitot's spots, corneal xerosis and keratomalacia) and its healed sequelae (nebulae, leucomata, staphylomata and phthisis bulbi).

With historical data provided by an older family member, usually the mother or the father of the child, the ophthalmologist attempted to assign causes to all old, healed corneal abnormalities. The major categories included infection (gross purulence), measles (characteristic rash), trauma (clearcut history of injury at the time of corneal damage), congenital (noted at or shortly after birth in an otherwise and quiet eye), hypovitaminosis A (none of the above in a white and quiet eye, the child being severely malnourished, usually with oedema and/or severe diarrhoea and dysentery) and unknown (atypical lesions no history available) causes.

As the survey work was conducted for more than a year, the results were compiled on seasonal basis, which will enable us to find out if there is any significant variation of hypovitaminosis A in different period of the year. The period of observation was divided as follows:

- Summer season - May, June and July;
- Autumn season - August, September and October;
- Winter season - November, December and January;
- Spring season - February, March and April.

The clinical findings of xerophthalmia due to vitamin A
deficiency were recorded as follows:

X0 - Only night blindness.
XI - Conjunctival xerosis, Bitot's spots, with or without night blindness.
X2 - Corneal xerosis.
X3A - Corneal ulceration with xerosis.
X3B - Keratomalacia.
X4 - Corneal scars (Anterior staphyloma, Adherent leucoma, phthisis bulbi, corneal opacity and etc.).

All these data were recorded in a form (Appendix - I) and analyzed.