

## ANALYSIS OF REPLIES TO QUESTIONNAIRE ON INFANT DEATHS.

*General.*—In formulating the questions asked, the fundamental idea was to elicit information which might throw light on the factors that had led to the death of the infant, and in this light must all the answers be regarded. The headings "Name of Mother," "Place of Birth," &c., are inserted solely for the purpose of checking off the returns. This is mentioned because it is noted that in certain quarters there is an apparent reluctance to give these particulars.

The following is a brief analysis of the replies received :—

Number of children : Primiparæ, 126—*i.e.*, 42 per cent. ; multiparæ, 174, 58 per cent.

The multiparæ ranged from two-paræ to sixteen-paræ among 112 cases in which the figure was given. The series included six ten-paræ and five twelve-paræ. The ratio of primiparæ to multiparæ in the general population (as shown in New Zealand Year-book for 1929, p. 120) is Primiparæ 32 per cent., Multiparæ 68 per cent. My figures thus show a greater percentage of primiparæ than multiparæ among those having still-births or neo-natal deaths as contrasted with the general population. Further the percentage of still-births in primiparæ to those in multiparæ is as 42·5 per cent. to 57·5 per cent. Thus the ratio of primiparæ is the same when neo-natal deaths are included as when they are not. This supports the view of Malcolm Fraser that neo-natal deaths are, in large measure, due to the same factors as still-births.

Degree of ante-natal care received : Some care, 197 cases—*i.e.*, 65·6 per cent. ; no care, 91, 30·3 per cent. ; not stated, 12, 4 per cent.

The degree of ante-natal care given in these 197 cases may be further analysed as follows : Good care, 76 cases—*i.e.*, 38·6 per cent. ; fair care, 80, 40·5 per cent. ; poor care, 41, 20·4 per cent. These are only approximate estimations based on the replies given.

By "good care" is meant regular attendance at an ante-natal clinic or regular medical supervision ; by "fair care" that several visits have been paid an ante-natal clinic or medical practitioner ; and by "poor care" that there has been no attendance at a clinic, but one or two visits to a practitioner with or without urinalysis.

These answers, showing that 66 per cent. received some ante-natal care, may be regarded as fairly satisfactory, considering the recent introduction of ante-natal treatment, but the number of these that received "good" ante-natal care is only seventy-six out of 197, or 38·5 per cent.

Presence or absence of pre-existing disease : Some evidence, 66 patients—*i.e.*, 22·00 per cent. ; no evidence, 211, 70·33 per cent. ; not stated, 23, 7·66 per cent.

Among the pre-existing diseases were noted twenty-eight cases of renal disorder (chronic albuminuria, pyelitis, &c.) ; eighteen cases of other bacterial invasion—*e.g.*, tuberculosis, influenza, septic tonsils, &c. ; eight cases of pelvic disorder, including such conditions as contracted pelvis, irregular uterine, hæmorrhage, &c. ; and one case each of cerebral tumour, glycosuria, pernicious anæmia, excessive obesity, &c.

Nature of previous labours : Normal, 101 labours—*i.e.*, 57·8 per cent. ; abnormal, 56, 32·2 per cent. ; not stated, 17, 9·8 per cent. The abnormalities recorded were various.

History of recent pregnancy : Normal history, 135 patients—*i.e.*, 45 per cent. ; abnormal history, 158, 52·6 per cent. ; not stated, 7, 2·3 per cent. The abnormality in 109 out of 158 cases was "shortness of duration," while thirty-two cases (20 per cent.) had toxæmic symptoms. From the foregoing it would appear that pre-existing disease in the mother and abnormalities in previous pregnancies had not a preponderating influence in causing still-birth or neo-natal death. On the other hand, some abnormality during the recent pregnancy was noted in approximately 53 per cent. of the cases. The curtailment of the duration of pregnancy increases the number of prematurely born infants who are unable to make the transition from foetal to child life. In considering how far these abnormalities of pregnancy are amenable to treatment, it is to be noted that "short duration" is associated with such conditions as hydramnios, toxæmia, placenta prævia, placental hæmorrhage, &c.

The duration of pregnancy : Prolonged, 15 cases—*i.e.*, 5 per cent. ; normal, 129, 43 per cent. ; premature and immature, 109, 36·3 per cent. ; not stated, 47, 15·6 per cent.

Of the 253 cases in which the duration of pregnancy was stated, it is notable that no less than 129 (51 per cent.) were of normal duration. The premature and immature cases are distributed as follows : 8·5 months, 13 cases ; 8 months, 22 ; 7·5 months, 16 ; 7 months, 36 ; 6·5 months, 14 ; 6 months, 8.

This shows the preponderance of seven-month cases, also the well-known tendency for pregnancy to terminate at the end of the month rather than at intermediate times.

Course of labour : Normal, 160 cases—*i.e.*, 53 per cent. ; abnormal, 136, 45·3 per cent. ; not stated, 4, 1·3 per cent. The abnormalities include twins, malpositions, eclampsia, placenta prævia, disproportion, ante-partum hæmorrhage, &c.

Operative interference, if any : Some interference, 78 cases—*i.e.*, 26 per cent. ; no interference, 207, 69 per cent. ; not stated, 15, 5 per cent.

The operative treatment mentioned includes—forceps, 45 cases ; version, extraction, &c., 19 cases ; induction of labour, 15 cases ; craniotomy, episiotomy, Cæsarean section, &c.

Apparent cause of death : Assigned, 224 cases—*i.e.*, 74·6 per cent. ; not assigned, 66, 22 per cent. ; not stated, 10, 3·3 per cent.

Here it is to be noted that the "causes" are merely those assigned by those filling in the replies and in the absence of post-mortem examination. It is here that post-mortem examinations would be of value in revealing, in some cases, remediable or preventible conditions.

Among the principal assigned causes of death are : Prematurity, 46 cases ; asphyxia by pressure, (on cord or &c.), 29 ; toxæmia, 26 ; hæmorrhagic conditions, 15 ; placental anomalies, 14 ; congenital malformations, &c., 10.