

# INDIVIDUELL UTVECKLING OCH MILJÖ

VETENSKAPLIG LEDARE: PROFESSOR DAVID MAGNUSSON

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## BASIC DATA OF DELIVERY RECORDS

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## ACKNOWLEDGEMENTS

The basic data of delivery records presented here is a subproject of the large longitudinal research program 'Individual Development and Environment'.

The data collection took place in a major regional hospital in Sweden. It started in December 1983 and went on almost all of 1984. A second extended search took place in January 1985.

We wish to express our warmest thanks to all personnel of the Department of Obstetrics and Gynecology at the Region Hospital, who were involved in our project: Doctor Lars Forslin, Head of the department, Doctor Eivor Wolmesjö and the archival personnel, especially Ingeborg Johannesson. Without the generous help from these persons this study could not have been realized.

We also wish to thank the coders Marita Johansson, Agneta Nordberg and Marianne Olsson. They work at the Research and Development Laboratory of the Department of Obstetrics and Gynecology at Karolinska Hospital. They had a difficult and tedious task but showed much patience and did a very good job.

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#### ABSTRACT

Lagerström, M., Byström, B., Bremme, K., Magnusson, D., and Eneroth, P. Basic data of delivery records. Organization of the study. Individual Development and Environment, the Department of Psychology, University of Stockholm. Report nr 62, 1985.\* - This study has been performed within the project Individual Development and Environment, which is a longitudinal study of 1027 cohorts enrolled in the third grade of elementary school in a mid-Swedish town in 1965, when the study started. Later 366 more pupils moved into town during elementary school time and participated in the study. The total number of subjects is 1393. Data collection of delivery records have been done on those of the children who were *born* in the town, totally 920 children (450 girls and 470 boys.) All the records were coded, but before that, 50 records were test-coded. The results from the test-coding were quite satisfactory. The code-scheme consists of 147 variables. It follows the standard delivery record; 78 variables concerning the mothers' background and health situation during pregnancy, 37 variables describe the deliveries and childbed and finally 32 variables concerning the records of the children. Some of the results are presented here in the form of 34 frequency-tables.

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## DELIVERY RECORDS

The present study is part of the project 'Individual Development and Environment', which aims at studying the development of patterns of adjustment problems from middle childhood to adult age (Magnusson & Dunér, 1981; Magnusson, Dunér, & Zetterblom, 1975). The project started in 1965 when the children were about 10 years of age. They were in the third grade of compulsory school in a Swedish town of 100 000 inhabitants.

In this study delivery records from the calander years, 1954, 1955 and 1956 have been collected. The aim of this report is to give both basic facts about the data collection and to present some of the results in the form of frequencies. In later studies the information from the delivery records will be used to find connections between obstetrical data and the development and adjustment of the subjects in a longitudinal perspective.

### Subjects

The total population consists of those 1393 persons who at least once during elementary school time participated in the investigation. The sample for which delivery protocols have been available is limited to those from the total population who were *born* within the county. Altogether they are 930 persons; 476 boys and 454 girls. Delivery records were found for 920 individuals or 98 percent of those registered as born in the area. It follows that the remaining 470 were born outside the county and that the families moved into this area sometime before the children started to participate in the study (Table 1).

Table 1. Frequences of the subjects.

Subjects	Boys	Girls	All
Total population	710	683	1393
Investigation group	476	454	930
Drop outs	5	5	10

A comparison was made to elucidate if there were any differences between our investigation group (940 persons) and those who were born outside the area and not belonging to that group (473 persons). The means of four different investigation variables from third grad of elementary school were compared. The four investigation variables were: teachers' ratings of (1) aggression and (2) timidity on a 1 - 7 point scale (with 7 meaning high in both aggression and timidity); (3) social class belonging, using three different classes; (4) intelligence points: 1 - 9 points from six different tests were added, i.e., a range of 6 - 54 points (Table 2).

Table 2. Means of investigation variables in the third grade for the investigation group and those born outside the area.

Investigation variables	Investigation group	Children born outside the area
aggression	3.5	3.5
timidity	3.9	3.8
social class	2.5	2.2 **
intelligence points	31.2	30.0 *

\* means  $p < .05$  using a 2-tailed t-test

\*\* means  $p < .01$  " " " "

The results of the comparison indicate that according to adjustment and other vital factors the two groups do not seem to differ in any noticeable way from each other.

There is a statistically significant difference between the two groups concerning social class belonging. Our investigation group, born in the area, belongs to a lower social class than those who were not born in the area. The probable explanation for this is that well educated families moved into the area which at that time had a prosperous trade and industry. There is also a difference between the groups concerning the sum of the intelligence. Our investigation group has higher intelligence than the others not belonging to the group. These results can be interpreted in such a way that in a future when adjustment problems are being studied nothing indicates that these problems are underrepresented in our material.

### Data collection

Most deliveries took place in the delivery ward of the Region Hospital (96.9%). The delivery wards in three smaller hospitals comprised only a small amount of the deliveries (1.7%). Only very few deliveries are known to have taken place at home and records from two of them are missing completely.

All the delivery records were picked out of the archives and copied by archival personnel at the women's clinic at the Region Hospital. The copies were transported to Stockholm by personnel from 'The Research and Development Laboratory of the Department of Obstetrics and Gynecology' at Karolinska Hospital. The delivery records were taken out by two turns; in 1984 and 1985. In 1984, 656 records were found with the knowledge of name and birth of the mothers. In 1985 the search was extended. More data were added; all the last names of the mothers and the date of birth of the children. As a consequence, 274 more records were traced.

The records have been kept locked up when not used. Only medically trained persons - with professional secrecy - have had access to the records.

### Delivery records

Every standard delivery record from the Region Hospital consists of three parts. In the normal case one part corresponds to one page. If something extraordinary has happened during pregnancy, delivery, childbed and /or with the children, this sometimes has been recorded on an extra page. The three parts of the delivery records are:

1. Housing conditions (concerning the mothers)

Civil status	"	"	"
Earlier illnesses	"	"	"
Earlier deliveries, miscarriages etc.	"	"	"
Living and dead children			
Health situation during pregnancy			
Admission to the delivery ward			
2. Delivery and childbed
3. Records of the children



An experienced obstetrician has read through all the delivery records with information added on extra pages and formed her opinion whether or not the information was relevant. All the relevant informations was copied.

#### The coding process

In order to get the most possible information out of the delivery records, a code-scheme was made up with the record as a basis. The code-scheme follows the delivery record point by point. The code-scheme consists of 147 variables.

The coding was made by five persons: Personnel from 'Research and Development Laboratory' and from our project. All the coders had a medical education.

Written coding instructions were given to all the coders.

In order to increase the reliability of the ratings, every coder had to participate in a training session, in which problems concerning the interpretation of various categories were discussed.

*Test-coding.* To check if the coding scheme followed the delivery record well and also if the quality of the coding was sufficient, independent test-codings were made. Two coders double-coded 50 delivery records: 25 simple ones and 25 complicated ones. By 'complication' is meant such a deviation from the standard record that made the coding complicated. From these 50 delivery records 10 key-variables were chosen. The number of coding mistakes is shown in Table 2. Altogether there were non-concordant coding in 13 out of 500 variables (2.6%). After the test-coding small adjustments were made in the coding scheme to improve the method.

Simple cases are more frequent than complicated ones. The complicated cases are 8.86% of the whole material. There are reasons to suspect that complicated cases are more difficult to code. They were therefore overrepresented at the test-coding. Estimated concordance for the whole material, see Table 3.

As can be seen in Table 3 the results of the independent test-coding indicates a very satisfactory reliability.

Table 3. Results of the independent testcoding of 50 delivery records.

Variables	Simple		Complicated	
	Concor- dance	Non-con- cordance	Concor- dance	Non-con- cordance
Rubella before pregnancy	23	2	24	1
Presence of Rhesus-factor in mother's blood	24	1	24	1
Hemorrhage during pregnancy	25		25	
Delivery at expected time	24	1	24	1
Use of forceps	25		24	1
Diagnosis Partus Normalis	25		25	
Attempt at resuscitation on the children	25		24	1
Children <3000g, cry	25		25	
Delivery injury	24	1	25	
More information about the child	24	1	23	1

Table 4. Estimated concordance for the whole material in percent.

Variables	%
Rubella before pregnancy	96
Presence of Rhesus-factor in mother's blood	98
Hemorrhage during pregnancy	100
Delivery at expected time	98
Use of forceps	100
Diagnosis Partus Normalis	100
Attempt at resuscitation on the children	100
Children <3000g, cry	100
Delivery injury	99
More information about the child	98

## RESULTS

From the available information on each delivery record 147 different variables were formed. The first part of the delivery records contained 78 variables concerning the mothers and their admission to the delivery wards. In the second part 37 variables contained information from the deliveries and childbed. The remaining 32 variables, the third part of the delivery records, contained the records of the children.

Frequencies of some of the more important variables will be presented here. Frequencies for boys and girls are presented separately as well as frequencies for the total.

By way of introduction the civil status of the mothers (Table 5) and their age (Table 6) is shown. There is no information about the earlier civil status of the married mothers. Some of them could be widows and/or divorced and remarried. The range of mothers' age was 15-47 years. The median age was 28. Two mothers were 15 and 16 years, respectively, and two mothers were 47, while none was 46 years, at the time of the birth of the child.

In Table 7 it is shown where the mothers were medically taken care of during the pregnancies. At least 829 mothers went to the maternity clinic of the Region Hospital. About these mothers we have all possible information. About the remaining mothers we often lack the information before admission to delivery-wards; social background, anamnesia and the health-situation during pregnancy. In the following eight tables 'missing value' includes more or less these mothers. If a mother, for example, visited a private doctor for care during the pregnancy, the most usual case is that we only have the Wasserman or the Meiniche-test result.

In Table 22 where 'Mode of presentation at multibirth' is presented, it can be seen that eight twins and one triplet should have belonged to the total population. However, two boys, both of them born as second twin, and two of the triplet-girls did not attend third grade of compulsory school in 1965. As a consequence, these four children do not belong to the total population.

In the Tables 13, 23, 25, and 34 diagnoses are presented. The coding of the diagnoses date from Kungliga Medicinalstyrelsen (The Medical Board) 'Statistical classifications of illnesses, injuries and causes of death' 1954, Stockholm. In Table 23 there are 71 deliveries with complications reported and in Table 34 the complications during delivery are specified. There are 76 deliveries with specified complications. The reason for this incongruity is that 5 deliveries have both the diagnosis Partus Normalis and another diagnosis.

In Table 31, 'Destination of children after discharge from delivery ward', it is shown that 20 children were sent to pediatric clinics. Out of these children there were nine (three girls and six boys), who were sent to pediatric clinic because they were immature ('Immatunitas non definita'). Four children had attacks of cyanosis, two of them mature and two of them immature. Two children had a diagnosis of intracranial and spinal birth injuries and one child had a diagnosis of malformation. The remaining four children had no specific diagnosis, only different symptoms described.

Out of the 920 newly born attempts at resuscitation on the children were made in 36 cases, 20 boys and 16 girls. Mostly the children were given oxygen. Values were missing for 19 cases.

Table 5. Civil status of the mothers

Civil status	Boys	Girls	Total
Married	398	388	786
Unmarried	57	46	103
Widow	-	1	1
Divorced	11	6	17
Missing value	4	9	13
Total	470	450	920

Table 6. Age of the mothers.

Age	Boys	Girls	Total
- 19	26	26	52
20 - 29	232	227	459
30 - 39	192	178	370
40 -	20	19	39
Total	470	450	920

Table 7. Boys and girls born in the pregnancy in question in relation to number of previous pregnancies.

Parity	Boys	Girls	Total
0	158	168	326
1	159	149	308
2	92	65	157
3	36	33	69
4	10	19	29
5	3	3	6
6	6	4	10
7	1	3	4
Missing value	5	6	11
Total	470	450	920

Note: 0 = no child born alive or dead. Based on 920 women 770 have had no miscarriage, while 125 women have experienced one such event. 16 women had experienced 2 and 2 women had had 3 miscarriages (missing value = 7).

Table 8. Mode of supervising the pregnant women.

Care	Boys	Girls	Total
The maternity clinic of the Region Hospital	424	405	829
Private doctor	24	23	47
Maternity clinic elsewhere	13	10	23
No care	1	4	5
Rest and missing value	8	8	16
Total	470	450	920

Table 9. Symptoms at the mother's first visit to a maternity clinic.\*

Symptoms	Boys	Girls	Total
No symptoms	249	233	482
Molimina graviditatis <sup>1</sup>	84	82	166
Emesis (vomiting)	25	26	51
Tiredness	21	25	46
Pruritus	3	1	4
Varices (legs)	10	9	19
Fluor	6	9	15
Obstipation or diarrhoea	6	6	12
Other symptoms (head-ache, tachy- cardia, cystitis, cough, etc)	18	14	32
Missing value	48	45	93
Total	470	450	920
Two symptoms or more of the above	46	38	84

\* This visit could take place between the third and fortieth week of pregnancy.

<sup>1</sup> Molima graviditatis includes the following symptoms: heart burn, feeling sick, and specific food desire (Sundelin, 1969).

Table 10. Presence of Rhesus-factor in mother's blood.

Rhesus-factor	Boys	Girls	Total
Yes, positive	376	380	756
Negative with child negative	30	23	53
Negative with immunization	1	2	3
Negative without immunization	40	32	72
Missing value	23	13	36
Total	470	450	920

Note: The RH-prophylaxis started after 1955

Table 11. Syphilis analyses in blood.

Test	Boys	Girls	Total
Wasserman negative	238	191	429
" positive	3	3	6
Meiniche negative	207	242	449
" positive	2	1	3
Missing value	20	13	33
Total	470	450	920

Note: Either has the Wasserman-test been used or the Meinice-test, never both of them.

Table 12. Disease of mother during pregnancy (excl. toxemia of pregnancy and symptoms recorded at *first* visit to maternity clinic).

Diseases	Boys	Girls	Total
No disease	217	203	420
Pyelitis	3	3	6
Other infections of the uro-genital	14	7	21
Hyperemesis (not toxemia)	2	2	4
Hemorrhage (excl. placentae praevia)	12	11	23
Anaemia	6	6	12
Imminent abortion or imminent premature deliv.	4	7	11
Placentae praevia	2	1	3
Excessive weight gain (examinator's opinion no exact weight)	11	15	26
Diabetes (only during pregnancy)	2	-	2
Molimina graviditatis*	19	11	30
Emesis	8	9	17
Tiredness	28	19	47
Pruritus	7	20	27
Leg- and back-ache, varices, ischias	23	27	50
Sleeping problem, nervousness	18	20	38
Other problems, fluor, eczema, obstipation, infections, stomach-ache etc.	44	42	86
Missing value	50	47	97
Total	470	450	920
More diseases than one	76	71	147

\* Molima graviditatis includes the following symptoms: heart burn, feeling sick and specific food desires.

Table 13. Toxemia of pregnancy.

Diagnoses and symptoms	Boys	Girls	Total
No diagnosis	369	371	740
Mb hypertonicus in graviditate incipiens	3	5	8
Mb renalis " " "	18	18	36
Pre-exclampsia gravidarum	-	7	7
Proteinuria - not diagnosis toxemia	9	13	22
Hypertoni - " " "	14	20	34
Oedema " " "	29	21	50
Missing value	20	21	41

Note. Based on 920 mothers out of whom 4 had all 3 symptoms and 10 mothers had 2 symptoms. Sex mothers had fundus hypertonicus with one of the above diagnoses.

Table 14. Hospital treatment during pregnancy.

Hospital treatment	Boys	Girls	Total
No hospital treatment	380	352	732
Due to premature labor	3	7	10
Due to illness or other problems	48	54	102
Missing value	42	34	76
Total	470	450	920

Note: C.f. Table 34.



Table 15. The most important medical interventions during pregnancy.

Intervention	Boys	Girls	Total
None	163	142	305
Medicine, not iron	60	52	112
Medicine and iron	53	61	114
Iron	105	108	213
Medicine and rest	8	6	14
Diet* and iron	13	15	28
Diet	14	17	31
Other actions, (specific examinations, etc)	8	7	15
Missing value	46	42	88
Total	470	450	920

\* Karell-diet (the Karell-diet is a low calorie diet).

Table 16. Operation and/or X-ray during pregnancy.

Medical intervention	Boys	Girls	Total
None of the below	418	403	821
Operation in general anesthetics	1	1	2
Operation or other surgical	-	-	-
Action without/or in local anesthetics	3	2	5
X-ray without connection to the pregnancy (pulmonary etc)	6	3	9
X-ray due to pregnancy (excl. pelvic-measure)	3	4	7
Missing value	39	37	76
Total	470	450	920

Table 17. X-ray examination of conjugata transversa.

Conjugata transversa in centimeters	Boys	Girls	Total
No X-ray examination	445	427	872
10 centimeters	1*	-	1
11 "	1	-	1
12 "	1	3	4
13 "	5***	6	11
14 "	5	3 <sup>0</sup>	8
15 "	2	2 <sup>0</sup>	4
Missing value	10	9	19
Total	470	450	920

\* = sectio

<sup>0</sup> = use of forceps

Table 18. Incidence of pelvic contraction.

Pelvic concentration	Boys	Girls	Total
No complications*	456	442	898
Contraction of pelvis	5	1	6
Missing value	9	7	16
Total	470	450	920

\* No complications do not exclude pelvic contraction. Only 29 mothers had a pelvic X-ray-examination.

Table 19. Length of pregnancy in weeks.

Weeks	Boys	Girls	Total
- 28	-	1	1
29 - 30	-	2	2
31 - 32	2	2	4
33 - 34	7	4	11
35 - 36	19	14	33
37 - 38	86	57	143
39 - 40	219	219	438
41 - 42	105	120	225
43 - 44	9	6	15
45 -	-	2	2
No date for last menstruation	3	7	10
Missing value	20	16	36
Total	470	450	920

Table 20. Interventions during delivery.

Interventions	Boys	Girls	Total
Caesarean section	7	2	9
Use of forceps	11	14	25
Blood-transfusion to mother	4	6	10
Extraction, manual or vacuum	3	4	7
Planned induction of labor**	23	39	62
Interior version	2	1	3
Perineotomia obliqua (dx or sin)	21	19	40
Medicine to induce labor (not planned)*	171	147	318
Perineotomia obl. and medicine**	26	21	47
Other interventions	2	7	9
Missing value	10	11	21

\* Prepartan-cure<sup>R</sup> and/or amniotomy

\*\* Neo-gynergen<sup>R</sup> or Uredrin<sup>R</sup> etc.

Note. Based on 920 mothers out of whom an individual woman may have been subjected to several interventions.

Table 21. Mode of presentation.

Fetal position	Boys	Girls	Total
Vertex	426	417	843
Breech unspecified	10	3	13
Abnormal unspecified, foot-breech	3	1	4
Simple foot	2	1	3
Double foot	2	-	2
Parietal	11	11	22
Face	-	3	3
Open vertex	1	1	2
No fetal position stated because of sectio etc	7	3	10
Missing value	8	10	18
Total	470	450	920

Table 22. Mode of presentation at multibirth.

Fetal position	Duplex mother								Triplet mother	
	A	B	C	D	E	F	G	H		
Vertex	1	2	1	1+2	1	1*+2	2*			1*+3*
Breech			2					1		
Foot breech							1			
Simple foot					2					
Double foot		1						2		
Parietal	2									2*

1 = first born      \* = girl

2 = second born

3 = third born

Table 23. Incidence of diagnosis Partus Normalis.

Classification of delivery	Boys	Girls	Total
Delivery without complications	417	392	809
Delivery without complications premature child*	10	15	25
Delivery with complications	34	37	71
Missing value	9	6	15
Total	470	450	920

\* According to Medical Board 'Statistical classification of illnesses, injuries, and causes of death', a premature child has a weight of 2500g at the most.

Table 24. Duration of labor in hours.

Hours	Primigravida (n=326)		Multigravida (n=594)	
	Boys	Girls	Boys	Girls
No labor	1	-	2	2
1 - 8	29	25	147	130
9 - 16	59	58	97	91
17 - 24	32	33	30	31
25 - 48	28	39	24	11
49 - 72	5	8	3	1
73 - 97	-	4	-	2
98 -	1	-	-	4
Missing value	3	1	9	10
Total	158	168	312	282

Table 25. The diagnoses of the children.

Code diagnoses	Boys	Girls	Total
Y20	436	424	860
Y21	7	15	22
Y22	7	1	8
Y24	5	1	6
Y28	-	1	1
Missing value	15	8	23
Total	470	450	920

Note: According to Medical Board 'Statistical classification of illnesses, injuries, and causes of death, 1954' every living child was classified depending on the type of birth. A premature child had a weight of 2500 g or less.

Y20 - one child, no information of maturity

Y21 - one child, premature

Y22 - Twin, no information on maturity; the other twin born alive

Y24 - twin. Premature, the other twin born alive

Y28 - triplet. Premature. All triplets born alive

Table 26. Weight of children in grams.

Grams	Boys	Girls	Total
Less than 2000	1	5	6
2000 - 2400	10	14	24
2500 - 2900	46	62	108
3000 - 3400	157	175	332
3500 - 3900	144	137	281
4000 - 4400	87	46	133
4500 - 4900	19	8	27
5000 - 5400	1	-	1
Missing value	5	3	8
Total	470	450	920

Note. Median weight = 3470 grams

Mean weight = 3490 grams

Table 27. Length of children in centimeters.

Centimeters	Boys	Girls	Total
30 - 34	1	-	1
35 - 39	-	1	1
40 - 44	1	7	8
45 - 49	104	164	268
50 - 54	338	265	603
55 - 59	18	6	24
Missing value	8	7	15
Total	470	450	920

Note. Median length = 50 centimeters. Mean length = 50 centimeters.

Table 28. Birth injuries to the children.

Birth injury	Boys	Girls	Total
No birth injury	453	435	888
Yes, certainly	-	1	1
Yes, probably	2	-	2
Yes, although doubtful	2	2	4
Further investigation on the child	2	1	3
Missing value	11	11	22
Total	470	450	920

Table 29. Neonatal problems.

Symptoms	Boys	Girls	Total
No symptoms	377	370	747
Impaired breathing	3	4	7
Heart problems	3	1	4
Color of skin	1	1	2
Temperature problem	64	53	117
Two symptoms or more	9	8	17
Exchange transfusion on child	-	1	1
Missing value	13	12	25
Total	470	450	920

Note. The degree of severity of these symptoms are very much varied.

Table 30. Observations of children with birthweight less than 3000 g.

Observations	Boys	Girls	Total
<i>The colour of the skin</i>			
Pink	49	67	116
Cyanotic	3	6	9
Missing value	5	8	13
<i>The skin of the face</i>			
Smooth	54	72	126
Wrinkled	-	3	3
Missing value	3	6	9
<i>Limbs</i>			
Normal muscle tone	49	70	119
Hypotonic	1	-	1
Missing value	7	11	18
<i>Wooly hair</i>			
In the face	10	6	16
At the shoulders	19	31	50
All over the body	23	33	56
Missing value	5	11	16
<i>Nails</i>			
The nails are palpable	42	55	97
The nails are not palpable	8	13	21
Missing value	7	13	20
<i>Cry</i>			
Powerful	52	72	124
Weak	1	3	4
Missing value	4	6	10
<i>The circumference of the head in centimeters</i>			
26 - 27	-	3	3
28 - 29	-	1	1
30 - 31	10	17	27
32 - 33	26	35	61
34 - 35	16	20	36
36 - 37	2	-	2
Missing value	3	5	8

Note. 774 children had a weight of 3000 grams or more.  
 138 children had a weight of less than 3000 grams.  
 Missing value = 8.



Table 31. Destination of children after discharge from delivery ward.

Destination	Boys	Girls	Total
Home	436	426	862
Maternity home	2	2	4
Hospital	8	12	20
Adoption home	1	-	1
Infant home	1	1	2
Others (relatives etc)	1	2	3
Missing value	21	7	28
Total	470	450	920

Table 32. Post-partum medical interventions concerning the mothers.

Intervention	Boys	Girls	Total
None	215	217	432
Medicin, not iron	55	52	107
Iron	108	90	198
Medicin and iron	38	38	76
Operation	13	12	25
Other interventions (blood transfusion, splint etc)	27	32	59
Missing value	14	9	23
Total	470	450	920

Table 33. Number of days between admission to and discharge from the hospital.

Days	Boys	Girls	Total
1 - 4	153	151	304
5 - 9	270	232	502
10 - 14	19	35	54
15 - 19	8	10	18
20 - 24	5	4	9
25 - 29	1	3	4
30 - 34	1	4	5
35 -	1	3	4
Missing value	12	8	20
Total	470	450	920

Table 34. Diagnoses of the mothers. Morbi gravidarum, parturientum puerperarum (excl. toxicosis gravidarum). \*

Diagnosis	Boys	Girls	Total
No diagnosis	358	328	686
<i>Complications during pregnancy</i>			
Toxicosis gravidarum	21	30	51 <sup>1</sup>
Hemorrhage before start of delivery	-	1	1
Anaemia gravidarum	1	1	2
Unclassified complications	1	3	4
<i>Delivery with specified complication</i>			
Placenta praevia	-	1	1
Retention of placentae	3	2	5
Other hemorrhage during or after delivery	14	16	30
Disproportion fetus/pelvis or abnormal position of fetus	3	1	4
Anomalia pelvis osseae	1	-	1
Prolonged delivery	9	16	25
Complete rupture of perineum	2	-	2
Other trauma of mother, e.g., inversion or rupture of uterus	1	1	2
Other complications	4	2	6
<i>Complications in puerperium</i>			
Infectio urinari	5	5	10
Sepsis during delivery and puerperium	9	8	17
Febris perperalis with unknown cause	15	16	31
Embolia pulmonis	1	-	1
Eclampsia	31	29	60
Anaemia starting during pregnancy	5	2	7
Other complications	-	1	1
Mastitis and other complications of nursing	2	-	2
Missing value	11	7	18

Based on 920 mothers with 47 of them having two diagnoses (boys - 27 mothers, girls - 20 mothers).

\* From Medical Board 'Statistical classification of illnesses, injuries, and causes of death, 1954', Chapter IX. Today 'Medical Board' is 'Socialstyrelsen' with the address, 106 30 Stockholm.

<sup>1</sup> The diagnoses of toxicosis gravidarum are specified in Table 13.

Note. C.f. the diseases in Table 12 and the symptoms in Table 13 - current notes from the pregnancy, on the one hand, and the diagnoses of Table 13 and 34 - final record notes, on the other.

#### COMMENTS

The coding process of the delivery records was difficult and tedious. It could sometimes be very hard to interpret the handwriting and to understand some of the words which were used. The results of the test-coding (Table 3) indicates in spite of the problems a very satisfactory reliability.

It is very important to remember that our population is not all those who were born in the mid-Swedish town during one year. Our population is those who were *born* in the town and at least once participated in the investigations of 'Individual Development and Environment'. It follows that those children who died during delivery or before the investigation started are not included. Neither are those children included who for some reason did not attend elementary school in the home area, or those children whose families moved out of town before they had the opportunity to participate.

When judging the material it can be seen that the obstetrical handling in certain aspects differs from the treatment of today. It is therefore not always possible to draw a direct parallel between corresponding variables in our material from the fifties and the current one. This does certainly not exclude that in the future it is possible to make interesting comparisons between the art of delivery in our material and the contemporary delivery-methods.

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