



NATIONAL OBSTETRIC INFORMATION SYSTEM (NOIS)

MALTA

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INTRODUCTION

The National Obstetric Information System (NOIS) was a useful data source in 2002, serving a wide client group of medical and non-medical professionals. NOIS has played a major role in supplying births statistics to all concerned in the Department of Health and the National Statistics Office. The database currently holds *case-based* obstetric and perinatal information on 16641 births, since it's introduction in 1999.

ANALYSIS

This report analyses, the national deliveries and births that occurred in 2002 and compares it to the same period in 2001, where possible (published annual report 2001).

The data in this report relates to the birth for all maternities (Maltese and non-Maltese) registered into the system.

In 2002, there were a total of 3873 deliveries registered in the Maltese islands, which resulted in a total of 3927 births.

When comparing these figures to the same period last year one can see that the number of deliveries and consequently the births decreased by 45 and 28 respectively (*deliveries: 3918, births: 3955-01*).

MATERNAL AGE, MARITAL STATUS, NATIONALITY and PARITY

The maternities have been grouped according to the standard age groupings and the frequency distribution of deliveries according to maternal age at delivery has been analysed. In 2002, the greatest number of deliveries (40%), occurred in the age group 25 to 29 years while the lowest number of deliveries (<1%) occurred in the 45+ age group. The minimum age of the mothers was 14 years while the maximum age was 47 years. The average age in 2002 and 2001 was 27.94 years and 28.08 years respectively.

The grouped frequency distribution of deliveries according to maternal age, are given in the table below.

Age grp.(yrs)	2002		2001	
	Frequency	%	Frequency	%
<15	4	<1	2	<1
15-19	229	6	245	6
20-24	726	19	774	20
25-29	1538	40	1510	39
30-34	901	23	921	23
35-39	375	10	349	9
40-44	86	2	100	3
45+	1	<1	4	<1
Unspecified	13	<1	13	<1

MARITAL STATUS

In 2002, there were 14% (555) of all deliveries that occurred to mothers who were never married (single) while 84% (3253) of deliveries occurred to mothers who were married once (married, widowed, separated). The remaining 2% (65) deliveries had no marital status specified (*12%-single, 88%-married once, <1%-unspecified-01*). When comparing these rates to 2001, one can see that the single status rate increased by 2% last year while the mothers who were married once decreased by 4%.

According to the data registered to NOIS in 2002, of the 14% (555) mothers who have never been married, 97% (538) received 'Support at home to raise the infant' while 2% (12) did not have 'support at home'. The remaining 1% (5) mothers were unspecified (12% single status: 93%-received support, 6%-not supported, 1%-unspec.-'01). On comparing these rates to 2001, one can see that with the single status mothers, there was a 4% increase in 'support at home to raise the infant', last year.

NATIONALITY OF MOTHER

In 2002, 95% (3662) of all deliveries occurred to women of Maltese nationality while 4% (170) were Non-Maltese. In the remaining 1% (41) deliveries the nationality was not specified (95%-Maltese, 5%-Non-Maltese-'01).

MATERNITIES ACCORDING TO BIRTH ORDER

The number of maternities were analysed using the recorded Past Obstetric History including the delivery that occurred in 2002. This was carried out to further categorise the multipara according to the order of delivery.

In 2002, There were 51% of mothers who were primiparas while 49% were multiparas. (In 2001 the primipara and multipara rate was 49% and 51% respectively).

In 2002, of the 49% multipara, 32% had their 2nd delivery while 11% had their 3rd delivery (see table below). When comparing the data to 2001 one can see that the rate of distribution of order of delivery remains almost the same (see table below).

Year 2002: Order of maternity	Average Age of Mother (yr.)	Frequency	Percent
1 (Primipara)	25.76	1976	51.0
2	28.97	1256	32.4
3	31.99	418	10.8
4	33.10	149	3.8
5	34.88	49	1.3
6+	37.09	24	0.6
Unspecified	-	1	.0

Year 2001: Order of maternity	Average Age of Mother (yr.)	Frequency	Percent
1 (Primipara)	25.75	1918	49.0
2	29.08	1278	32.6
3	31.74	470	12.0
4	33.61	151	3.9
5	37.33	46	1.2
6+	36.97	30	0.8
Unspecified	-	25	0.6

MISCARRIAGES IN PAST OBSTETRIC HISTORY

Of the total primiparas (1976) in the 2002, 10%(200) recorded a past history of miscarriage while 90% (1776) had no history of miscarriage registered. Of the total 10% of primiparas that recorded a miscarriage in the past, 8.6% had one miscarriage, 1.3% had two while 0.1% had three or more.

With regards to total multipara (1897), 22% (411) of deliveries reported a miscarriage in the past obstetric history while 78% (1485) had no history of miscarriage in the past (see table below).

Number of Miscarriages	Order of maternity					Total
	1 (Primps)	2	3	4	5+	
0	1776 45.9%	1008 26.0%	328 8.5%	102 2.6%	46 1.2%	3260 84.2%
1	170 4.4%	195 5.0%	63 1.6%	32 0.8%	20 0.5%	480 12.4%
2	25 0.6%	40 1.0%	21 0.5%	13 0.3%	2 0.1%	101 2.6%
3	4 0.2%	9 0.7%	2 0.1%	2 0.1%	1 0%	18 0.5%
4	-	3 0.2%	1 0%	-	2 0.1%	6 0.2%
5	-	-	1 0%	-	-	1 0%
6	1 0.1%	1 0%	1 0%	-	1 0%	4 0.1%
7+	-	-	1 0%	-	-	1 0%
Total	1976 51.0%	1256 32.4%	418 10.8%	149 3.8%	72 1.9%	3871* 100.0%

Note: In addition 1 mother had no history of parity specified and another multipara had no history of miscarriage specified.

In the published annual report of 2001, miscarriages were not analysed.

MATERNAL LIFESTYLES

Last year, there were 3% (317) of mothers who smoked either 1 to 3 cigarettes or more during pregnancy. When comparing these figures to 2001, it can be seen that the smoking habits of mothers decreased by 5% in 2002. However, these figures must be read with caution as the data recorded may not reflect real picture.

The table below gives the smoking, alcohol and drug habits of mothers for 2001 and 2000.

<i>Year</i>	<i>2002</i>	<i>2001</i>
	No.	No.
<i>Cigarette smoking during pregnancy:</i>		
➤ 1 to 3/day	23	87
➤ >than 3/day	100	230
➤ Do not smoke	3691	3592
➤ Unspecified	59	9
<i>Alcohol consumption during pregnancy:</i>		
➤ Up to 1unit/day	2	2
➤ >than 1unit/day	-	3
➤ None	3816	3908
➤ Unspecified	55	5
<i>Drug Abuse during pregnancy</i>		
➤ Yes	6	7
➤ No	3812	3906
Unspecified	55	5

PATHOLOGY DURING PREGANANCY

The table below gives the number of mothers in 2002 and 2001, recorded with a specific obstetric pathology during pregnancy. There were 5% of mothers who had gestational hypertension in 2002 while for the same period in 2001 this rate was also at 5%.

<i>Pathology recorded during pregnancy</i>	<i>2002</i>			<i>2001</i>		
	<i>No</i>	<i>Yes</i>	<i>Unspec.</i>	<i>No</i>	<i>Yes</i>	<i>Unspec.</i>
	No.	No.	No.	No.	No.	No.
Antepartum Haemorrhage:	3832	37	4	3872	46	-
Gestational hypertension:	3654	212	5	3707	208	3
Pre-eclampsia:	3839	24	10	3898	20	-
Placenta praevia:	3841	24	8	3901	17	-
Abruption of placenta:	3853	9	11	3900	15	3
Assisted fertilisation (ART):	3831	29	13	3896	22	-
Cardiovascular disease:	3867	1	5	3908	2	8

Diabetes in pregnancy

Diabetes in pregnancy is recorded into the standard NOIS sheet according to the data recorded in the 'Booking Sheet', 'The Baby Book' and the entry note by the doctor in the personal file of the mother.

In 2002, there were 6 mothers who were registered as being Insulin Dependent Diabetic before this pregnancy while there were 3 mothers recorded with Non-Insulin Dependent diabetes. In addition, there were a total of 60 mothers registered with gestational diabetes who were controlled with (4) and without (56) the use of insulin.

In addition there were 22 mothers that were recorded with 'Glycosuria' (ICD 10-O26.9) with no mention of IDDM/NIDDM before pregnancy or gestational diabetes during pregnancy.

ULTRASONOGRAPHY

According to NOIS in 2002, there were 31% of mothers who had two ultrasounds carried out during pregnancy while in 7% of mothers this was not specified. The table below gives the number and rate of ultrasound scan carried out during pregnancy.

No of Scans*	2002		2001	
	No.	%	No.	%
1	739	19	721	18
2	1208	31	1308	33
3	905	23	883	23
4	478	12	446	11
>5	293	8	262	7
Unspecified	250	7	296	8

CATEGORY OF MATERNITY ACCORDING TO DELIVERY

For 2002, there were a total of 3821 (99%) singleton, 50 (1%) twin deliveries and 2 triplet (<1%) deliveries (see table below).

Category	2002	2001
	No.	No.
Singleton	3821	3882
Twin	50	35
Triplet	2	1
Quadruplet	-	-

SITE AND ONSET OF DELIVERY

In 2002, of the total deliveries (3873), 99.5% (3854) occurred in hospital while 0.5% were deliveries that occurred at home (8), underwater (4) and other (3) site.

In 2002, of the total deliveries (3873), 49% (1878) were spontaneous onset of contractions, 39% (1527) were induced by drugs or Artificial Rupture of Membranes (ARM), 11% (442) were planned Caesarean sections and 1% (26) had no onset of delivery registered.

METHOD OF BIRTH

In 2002, there were 72% (2813) of births that were delivered by vertex delivery, 24% (956) by emergency or elective Caesarean section and 4% (154) by assisted vaginal delivery (includes forceps & ventouse) and <1% (4) were breech deliveries.

When comparing the method of birth to the same period of 2000, it can be seen that the rate of the method of birth remained almost the same (2001: vertex:72%, C section: 24%, assisted vaginal delivery:3%.

Method of Birth*	2002	2001
	No.	No.
Infants delivered by vertex delivery	2813	2863
Infants delivered by elective CS before labour	448	472
Infants delivered by emergency CS before labour	71	71
Infants delivered by elective CS during labour	22	26
Infants delivered by emergency CS during labour	415	388
Infants delivered by forceps	22	16
Infants delivered by ventouse	132	115
Breech deliveries	4	4

Note: Data analysed according to total birth

BIRTHWEIGHTS AND GENDER OF BIRTHS

In 2002, of the total births (3927), 93% (3671) occurred in the birth weight range of 2500g to 4999g, 5% (211) in the low birth weight range of 1500g to 2499g and 1% (36) in the very low birth weight range of 500g to 1499g. In addition there was 5 birth that had a birth weight of more than 5000g and 3 births had no birth weight registered, see table below.

Birthweight(g)	2001	2001
	Frequency of births	
<500g	1	-
500-1499g	36	36
1500-2499g	211	209
2500-4999g	3671	3700
5000+	5	1
Unspecified	3	9
Average Birthweight	3241	3254

The male and female distribution of births in the 2002 was 2076 and 1851 respectively.

OUTCOME OF BIRTH

The number of live births in 2002 and 2001 were 3906 and 3935 respectively which accounted for 99.5% of the total birth rate at a national level. The remaining 0.5 % accounted for the stillbirths (see table below).

Outcome of Birth	2002	2001
Babies born alive	3906	3922
Stillbirths*	21	20
Early Neonatal deaths	16	10
Late Neonatal deaths	3	3

Note: *: Includes all births irrespective of gestational age

BREAST FEEDING WITHIN 30 MINUTES OF DELIVERY

In 2002, there were 35% of infants that were breast fed 'within 30 minutes of birth' while 65% were not breast fed during the same time period. When comparing these figures to same period in 2001, one can see that there was a 1% decrease in the number of infants who were breast fed 'within 30 minutes of birth' in 2002 (2001: 36% breast fed, 64% not breast fed).

Breast feeding within 30mins. of delivery	2002	2001
	No.	No.
Infants breast fed	1371	1432
Infants not breast fed	2554	2510
Unspecified	2	13

INFANT FEEDING METHODS AT DISCHARGE

Infant feeding habits are recorded by hospital staff at the time of discharge, little can be said on the actual infant feeding habits from the numbers given below as these may change soon after discharge from the birthing facilities.

Infant feeding methods at time of discharge	2002	2001
		<i>No.</i>
Breast only	1914	1881
Bottle only	1538	1469
Mixed (Breast & Bottle)	405	508
Other	12	29
Unspecified	58	68

CONCLUSION

In May 2002, the National Statistics Office (NSO), agreed to support NOIS in accordance to the Malta Statistics Authority Act, 2000.

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