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September 1976 to March 1977

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THE MATERNITY RECORD PRETEST

In association with the Sudan Fertility Control Association, the Maternity Record underwent the first phase of a pretest in Khartoum 1975/1976. An international pretest of the single sheet, single computer card Maternity Record was undertaken during the summer of 1976 with the participation of 30 contributing institutions on five continents and the formal blessing of the International Federation of Gynaecology and Obstetrics (FIGO).

A series of analyses have been made which are based on data from 20 institutions which reported at the "300" frequency level during the summer pretest. A total of 6,331 cases were included in the analyses. A preliminary report on some of the pretest findings was made to the Executive Board of FIGO at the VIII World Congress of Gynecology and Obstetrics in Mexico, October 1976 (see Supplement B, MCM-1).

Subsequent analyses of the data inquired into the validity and feasibility of Maternity Care Monitoring. In each of these analyses, clinics were ranked by study variables. To date three analyses have been prepared (MCM 1, 4, and 5) as reports to the 20 contributors who participated in the pretest. The overall scheme of analysis calls for 6 MCM reports. These are described in the attached copy of MCM-5 "Present Delivery and Research Strategy" in Sections 1.1 and 1.5, which explain and diagram the analysis strategy. Findings from the pretest have led to further development of the Maternity Record and will set the framework for further developing the computer programs for standardized table feedback and analysis.

V

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REPRODUCTIVE PROFILE
Columns: 1-142
Panels: 1-8
Figures: 1-8

October 1976

MATERNITY CARE MONITORING
LEADING TO
REPRODUCTIVE EPIDEMIOLOGY

Maternity Record Pretest, Summer 1976
IFRP-FIGO

Prepared for the Contributors to the Maternity Record Pretest
&
Presented to the Executive Board of FIGO at the
VIII World Congress, Mexico City, 15 October 1976

from
International Fertility Research Program
Research Triangle Park, North Carolina 27709 USA
and
International Federation of Gynecology & Obstetrics
Maternité, 1211, Genève, Suisse

3

MATERNITY RECORD

The IFRP Maternity Record is designed to collect information for delivery. Data are collected on the personal characteristics, the fertility history and the antenatal care of the patient, the management and the outcome of the delivery, the postpartum status of the mother and of the infant and the patient's postpartum fertility control intentions.

In addition, up to five questions of the contributor's choice may be added in the Special Studies box. Both the questions and the codes are at the contributor's discretion but the IFRP may make recommendations for comparability with other centers that use the form. Three additional questions (race and/or ethnicity and the two occupational questions) also have a flexible set of responses which will be determined at the discretion of the contributor.

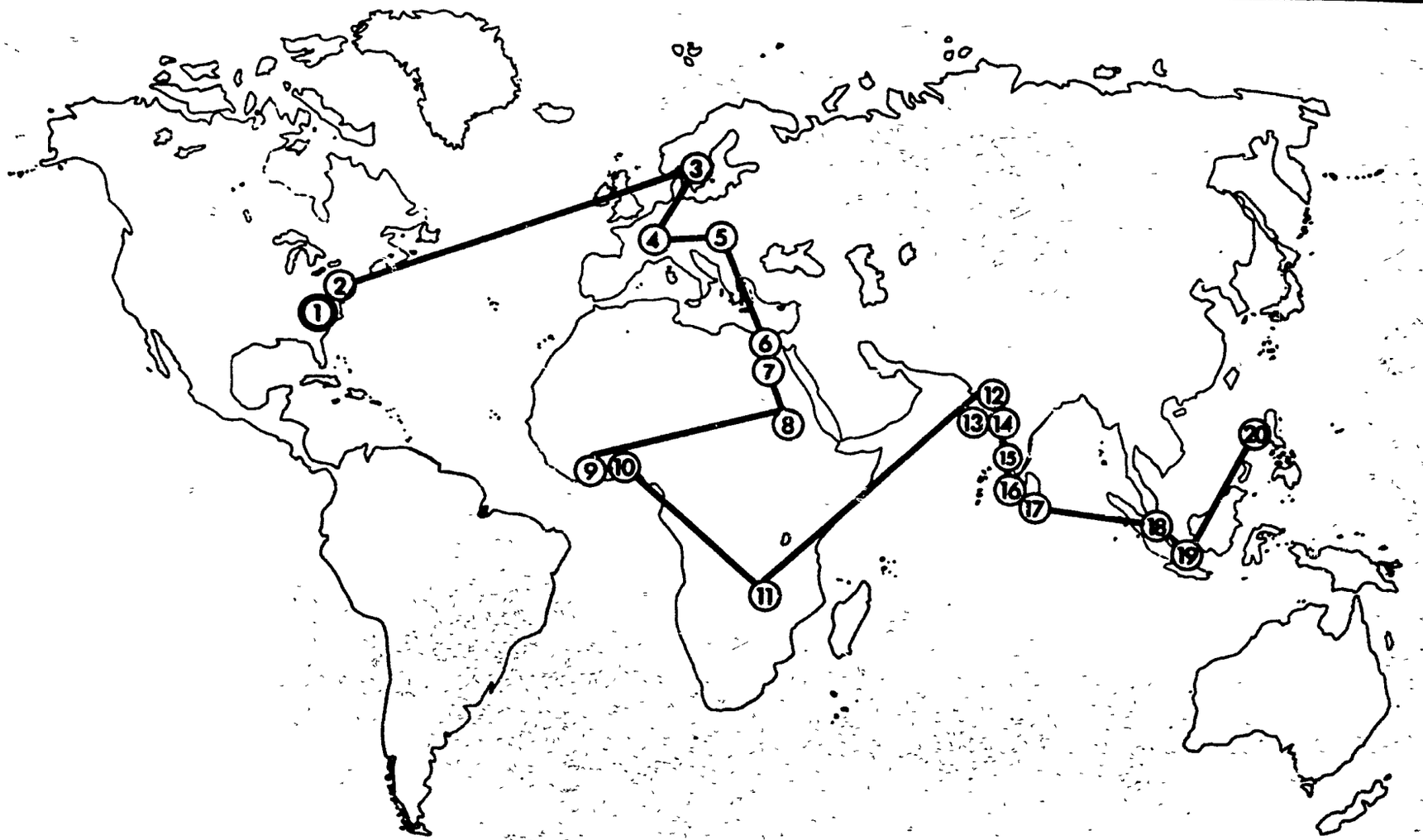
The forms are designed to be processed without queries. The absence of queries reduces the amount of paperwork (and therefore the cost to the contributor) involved in the participation of this study in comparison with other IFRP studies. However, the quality of the data is therefore more dependent on accurate responses than is true with other IFRP forms. Forms will not be accepted if the responses to certain key questions are either unknown or inconsistent. There will be a pretest period to enable each contributor to minimize recording problems.

Standard Analysis tables will be provided upon request which will assist the contributor in writing both administrative and research reports.

Obstetricians who feel that the Maternity Record could bring a new dimension to Pregnancy Management should feel free to contact either IFRP or FIGO.

INTERNATIONAL MATERNITY RECORD PRETEST, SUMMER 1976

IFRP–FIGO



AMERICAS	EUROPE	AFRICA	MIDDLE SOUTH ASIA	SOUTHEAST ASIA
		6 Cairo	12 Baroda	
		7 Assiut	13 Bombay-1	
	3 Stockholm	8 Khartoum	14 Bombay-2	
	4 Geneva	9 Accra	15 Manipal	
2 Baltimore	5 Debrecen	10 Ibadan	16 Colombo-1	20 Manila
1 Chapel Hill	Szeged	11 Lusaka	17 Colombo-2	18 Singapore 19 Bandung

IDENTIFICATION OF SELECTED DATA SETS
('300' Frequency Level)

AREA	PLACE	DATA SET	TIME SPAN	DELIVERIES
AMERICAS	Chapel Hill	1	June to Sept. 1976	272
	Baltimore	2	July to Aug. 1976	294
EUROPE	Stockholm	3	June to Aug. 1976	319
	Geneva	4	Jan. to March 1976	357
	Debrecen/Szeged	5	Aug. to Sept. 1976	314
AFRICA	Cairo	6	June 1 to 30 1976	303
	Assiut	7	June to Aug. 1976	295
	Khartoum	8	May to Aug. 1976	469
	Accra	9	Aug. 10 to 27 1976	293
	Ibadan	10	June to Aug. 1976	272
	Lusaka	11	July to Sept. 1976	295
MIDDLE SOUTH ASIA	Baroda	12	June to Sept. 1976	310
	Bombay-1	13	June to July 1976	300
	Bombay-2	14	May to Aug. 1976	299
	Manipal	15	Jan. to June 1976	299
	Colombo-1	16	July to Aug. 1976	294
	Colombo-2	17	July to Aug. 1976	309
SOUTHEAST ASIA	Singapore	18	April to Sept 1976	399
	Bandung	19	June to Aug. 1976	318
	Manila	20	Aug. to Sept 1976	320
International		20	Summer 1976	6,331

A BRIEF NARRATIVE

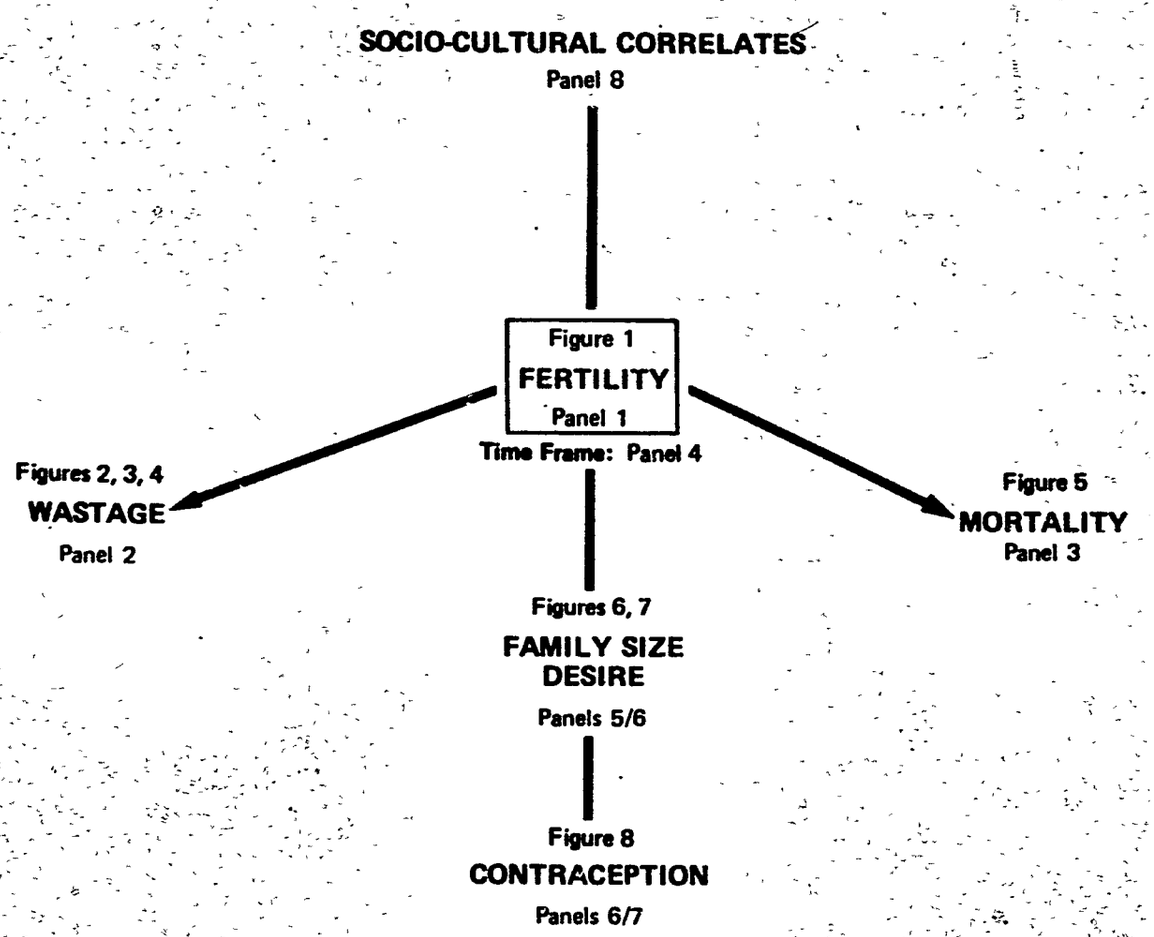
The pretest of the single-sheet (and single computer card) IFRP Maternity Record was conducted during the summer of 1976 with the participation of over 30 contributing institutions on the five continents and the formal blessing of FIGO. Given that this international experiment has no precedent, one is faced with the conspicuous absence of a cross-sectional baseline. If the present pretest is at all valid, it marks the emergence of such a "trans-institutional" baseline. Hence, it is necessary to examine the small study samples for their internal consistency across a broad battery of "accompanying variables". Obviously, the patient characteristics will lend themselves to meticulous comparison if they are organized into a logical interactive scheme of indicators. When the reproductive histories of the women at the various institutions are analyzed by country, a continuum of data should result. If indeed the present review shows the indicators to be consistent both internally and with knowledge gathered elsewhere, then the clinical findings will have an even higher level of credibility and hence interdisciplinary acceptance at this very early stage of routine data collection at the maternity ward. Indeed, the validity of the data collected on the pretest now depends on whether it is found to be consistent at several levels.

This review presents socio-demographic characteristics of the women in the pretest centers that recorded around 300 deliveries in July and August, 1976. The world map shows the 20 locations included in this first review. The following organization of the data is proposed:

Topic	Column
Panel 1.....Reproductive Attainment prior to this Delivery.....	1-16
Panel 2.....Reproductive Wastage prior to this Delivery.....	17-30
Panel 3.....Reproductive Loss, by Sex, prior to this Delivery.....	31-52
Panel 4.....Reproductive Time Frame up to this Delivery.....	53-73
Panel 5.....Reproductive Desire after this Delivery.....	74-89
Panel 6.....Reproductive Desire & Control after this Delivery.....	90-102
Panel 7.....Reproductive Control before & planned after this Delivery.....	103-121
Panel 8.....Socio-Cultural Correlates.....	122-142

This arrangement provides complete clarity and instant access to the various indicators by topic and institution. Indeed, any of the 142 indicators can be compared within seconds among the 20 institutions (142 X 20 = 2840 bits of information). The aggregate information is of such overwhelming richness that the present review merely skims the surface.

CONTENTS



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"Trans-sample" comparisons in this analysis have shown the Expected Interactive Association Web (+,–).

FINDINGS

Figure 1 ..... Fertility prior to this Delivery: Low Age & High Parity

Figure 2 ..... Pregnancy Wastage prior to this Delivery: Induced & Spontaneous Abortion

Figure 3 ..... Pregnancy Wastage prior to this Delivery: Stillbirth: Ranking of Rates

Figure 4 ..... Pregnancy Wastage prior to this Delivery: Stillbirth: Ranking of Percent Women

Figure 5 ..... Early Mortality prior to this Delivery: Infant & Early Childhood Deaths

Figure 6 ..... Family Size Desire after this Delivery: Women Wanting Additional Children

Figure 7 ..... Family Size Desire after this Delivery: Comparison of Two Estimates

Figure 8 ..... Fertility Control before & planned after this Delivery

FERTILITY PRIOR TO THIS DELIVERY

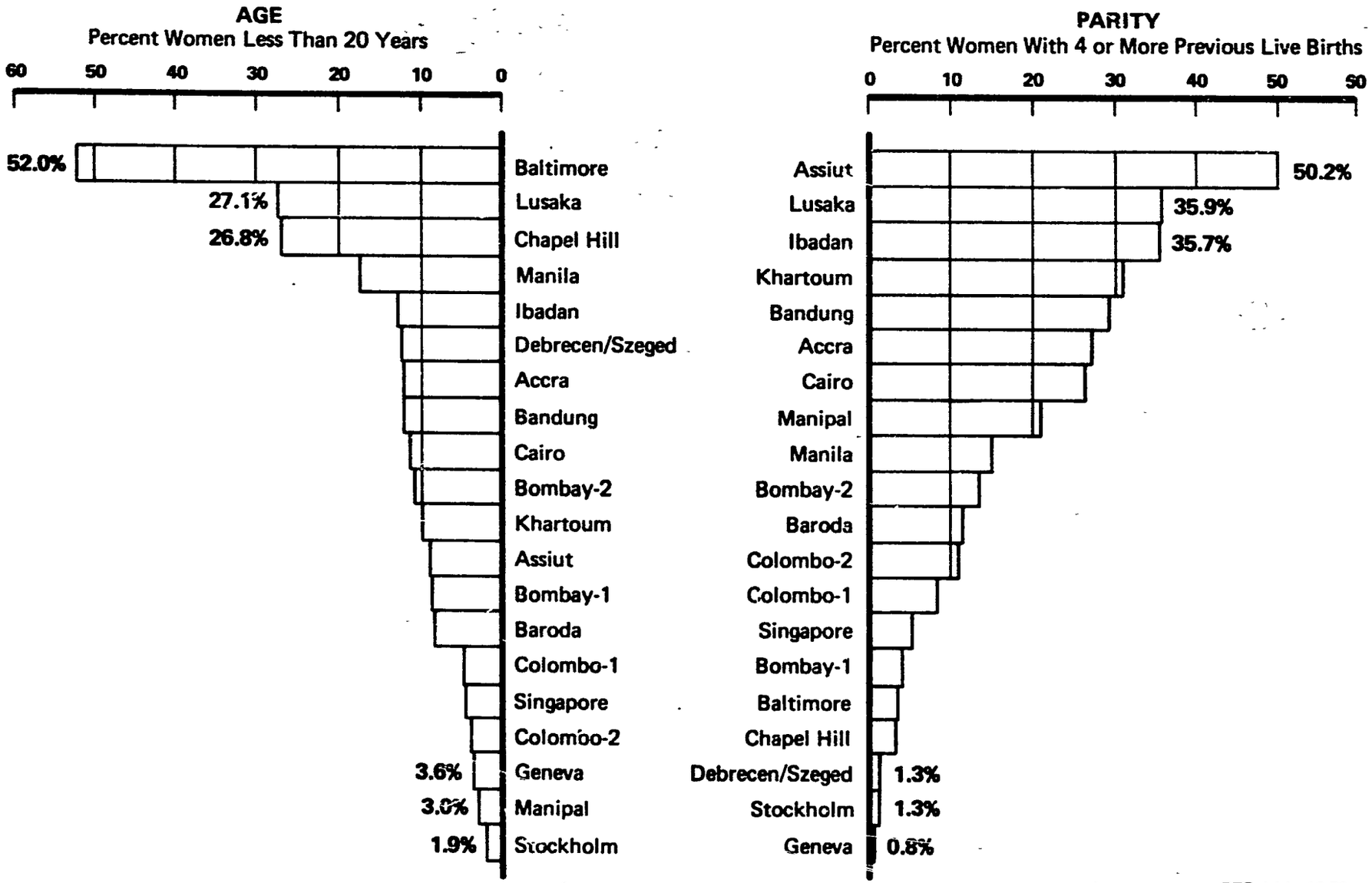

Figure 1. Ranking in Descending Order of the Samples Regarding **Low Age** (Left) and Regarding **High Parity** (Right).
The single point cross-sectional world view enables to recognize the demographic transition; hence even smallest samples of routinely collected data apparently "reflect" (within a certain range of variation) the institution's broader catchment area.

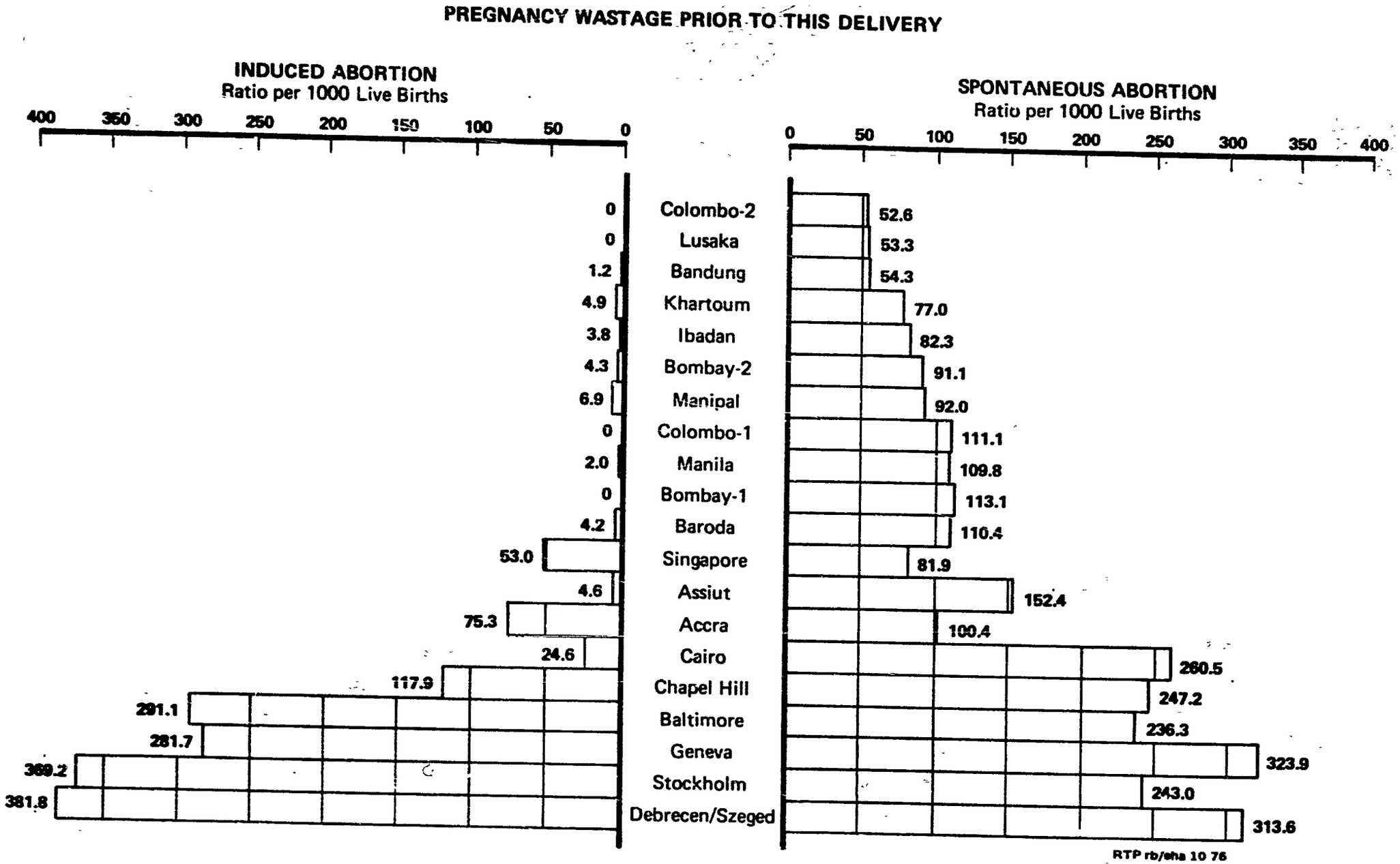

Figure 2. Ranking in Descending Order of the Samples According to Total Reported Abortions (Ratio per 1000 Live Births). Subsequent Dichotomy into Abortions Reported as **"Induced"** (Left) and **"Spontaneous"** (Right).
The rank order of intermingled countries of very different sociocultural background provides glimpses of insight into under, over reporting of the two classes of abortion.

STILLBIRTHS PRIOR TO THIS DELIVERY

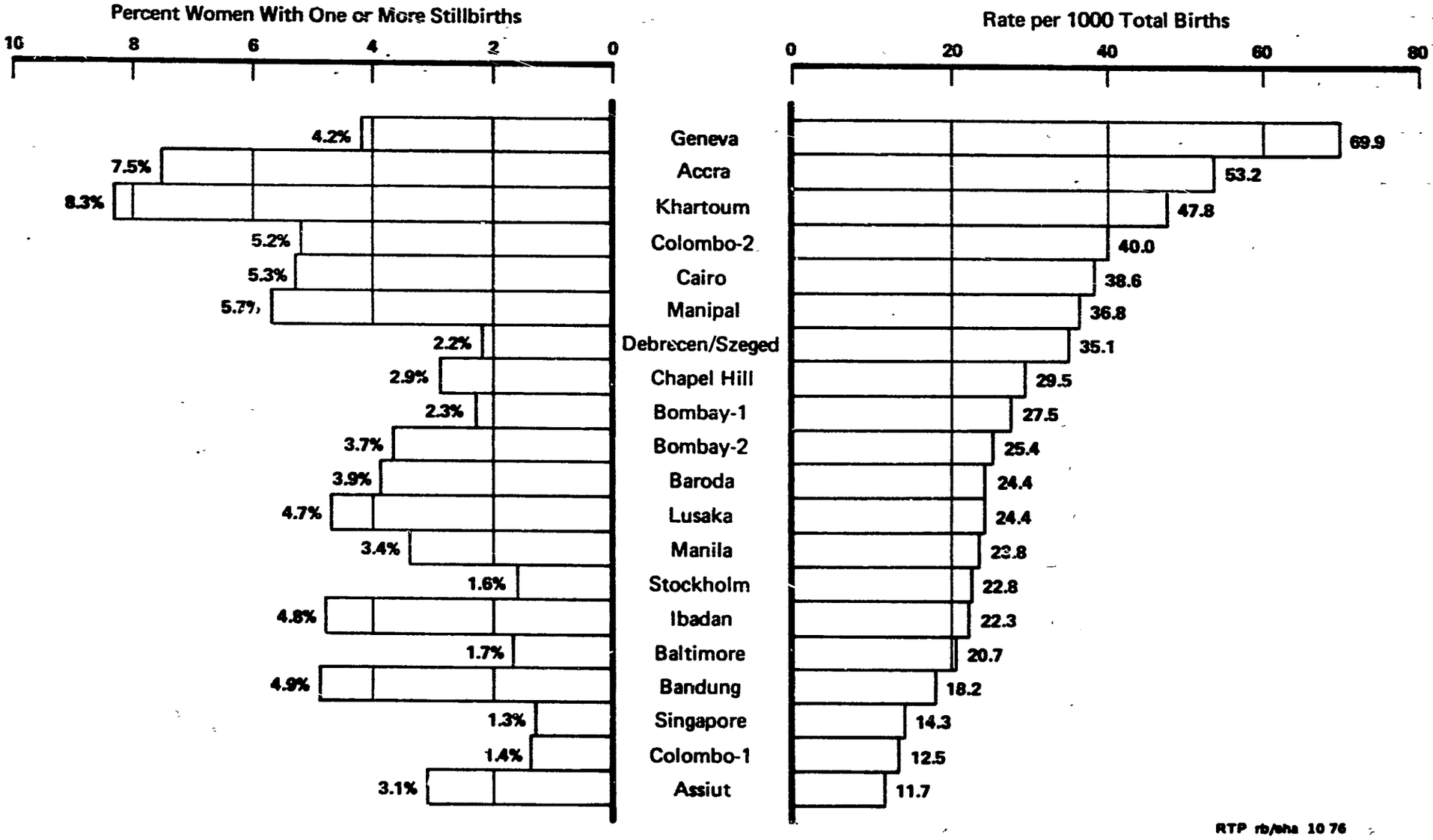

Figure 3. Ranking in Descending Order of the Samples According to the Rate (per 1000 Total Births) of STILLBIRTHS (Right). Corresponding Values of Percent Women With One or More Stillbirths (Left).

Comparison of the Rates (per 1000 Total Births) with corresponding Percent (Women With One or More Stillbirths) across the twenty institutions shows "systematic inconsistencies" suggesting the need for ranking in descending order by percent women with one or more stillbirths prior to the present delivery. This is done in Figure 4.

STILLBIRTHS PRIOR TO THIS DELIVERY

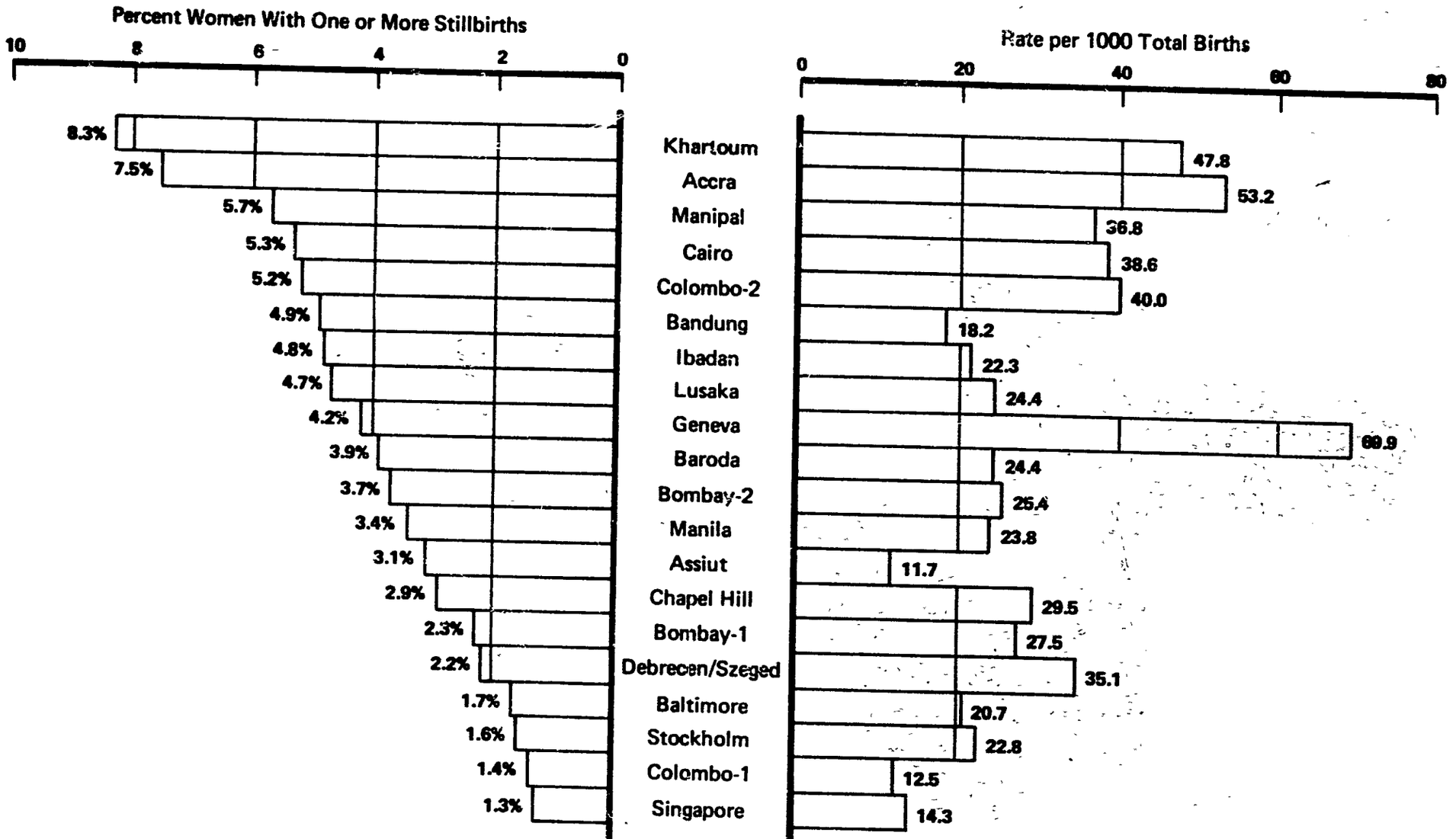

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Figure 4. Ranking in Descending Order of the Samples According to **Percent Women With One or More** STILLBIRTHS (LEFT). Corresponding Values of the **Rate (per 1000 Total Births)** (Right).

Comparison of the **Percent (Women With One or More Stillbirths)** *with corresponding* **Rates (per 1000 Total Births)** *across the twenty institutions would indicate a geographic sequence quite compatible with the demographic transition, except for a few noteworthy situations. Stillbirth is highest for African samples and lowest for most developed country samples, including Singapore. The Geneva sample includes many foreign labor cases with documented low education.*

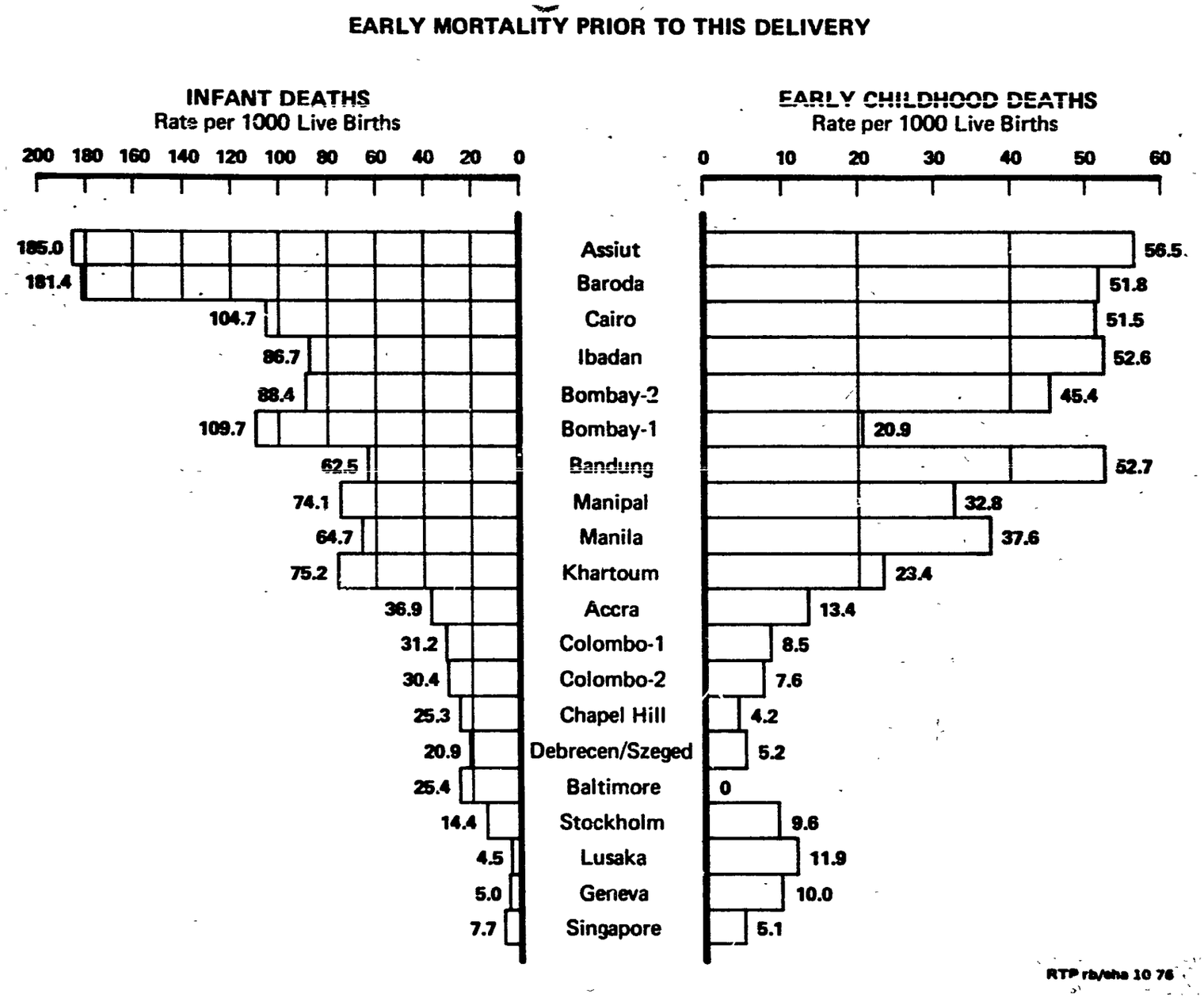

Figure 5. Ranking in Descending Order of the Samples According to the Combined Early Deaths (Rate per 1000 Live Births). Subsequent Dichotomy into **Infant** (Left) and **Early Childhood** (Right) Deaths.

Both infant and early childhood deaths are lowest for the European and American studies and highest for the African and Asian studies. Note the smooth decreasing continuum on the infant death side as compared with the bulging early childhood death for African and Asian studies.

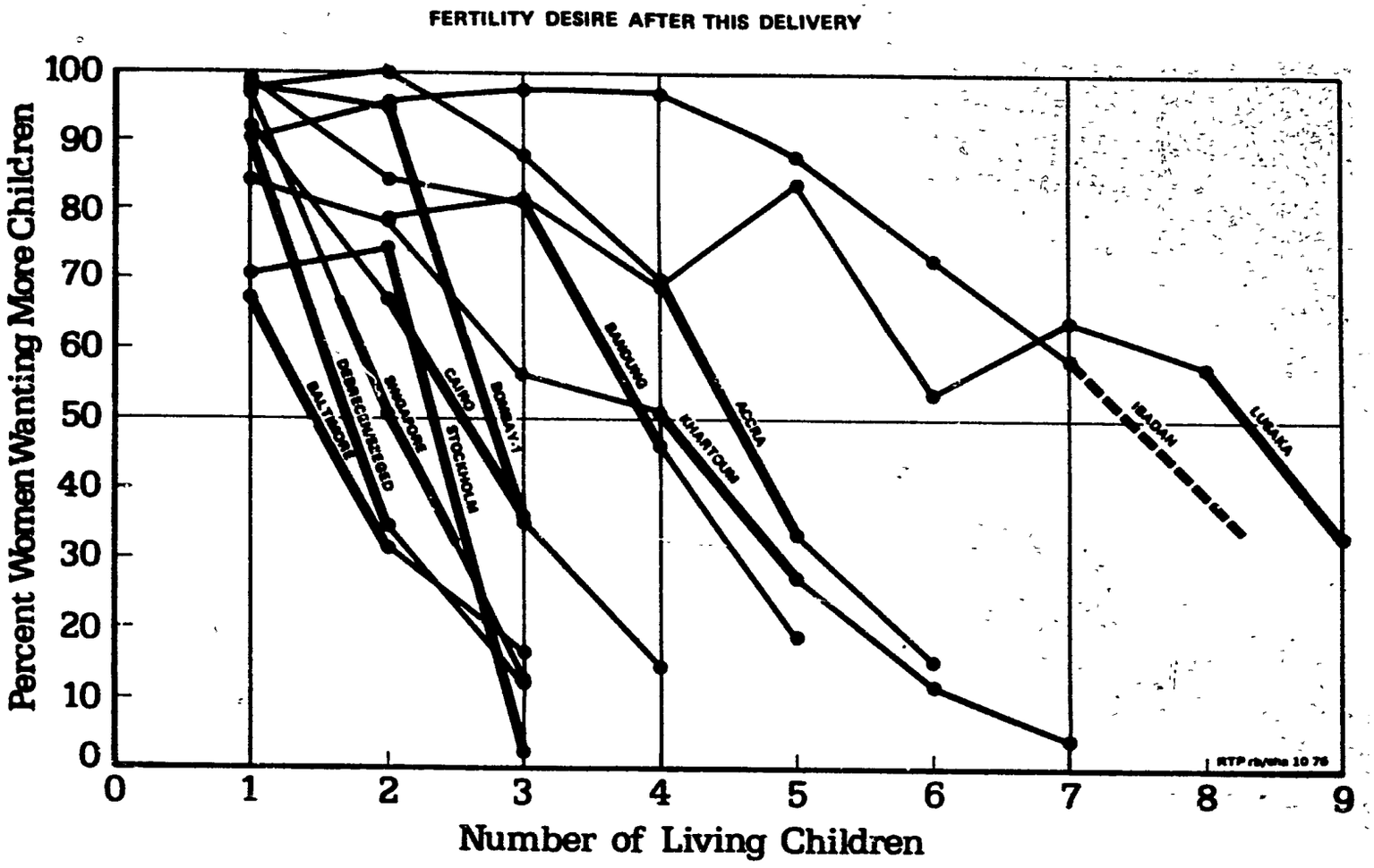

Figure 6. Proportion of Women Wanting Additional Children, by Total Number of Living Children After This Delivery.
These "Spacer" Curves rank samples into a continuum of fertility desire as expressed by the women after the present delivery. The highest fertility desire is noted for samples in African countries.

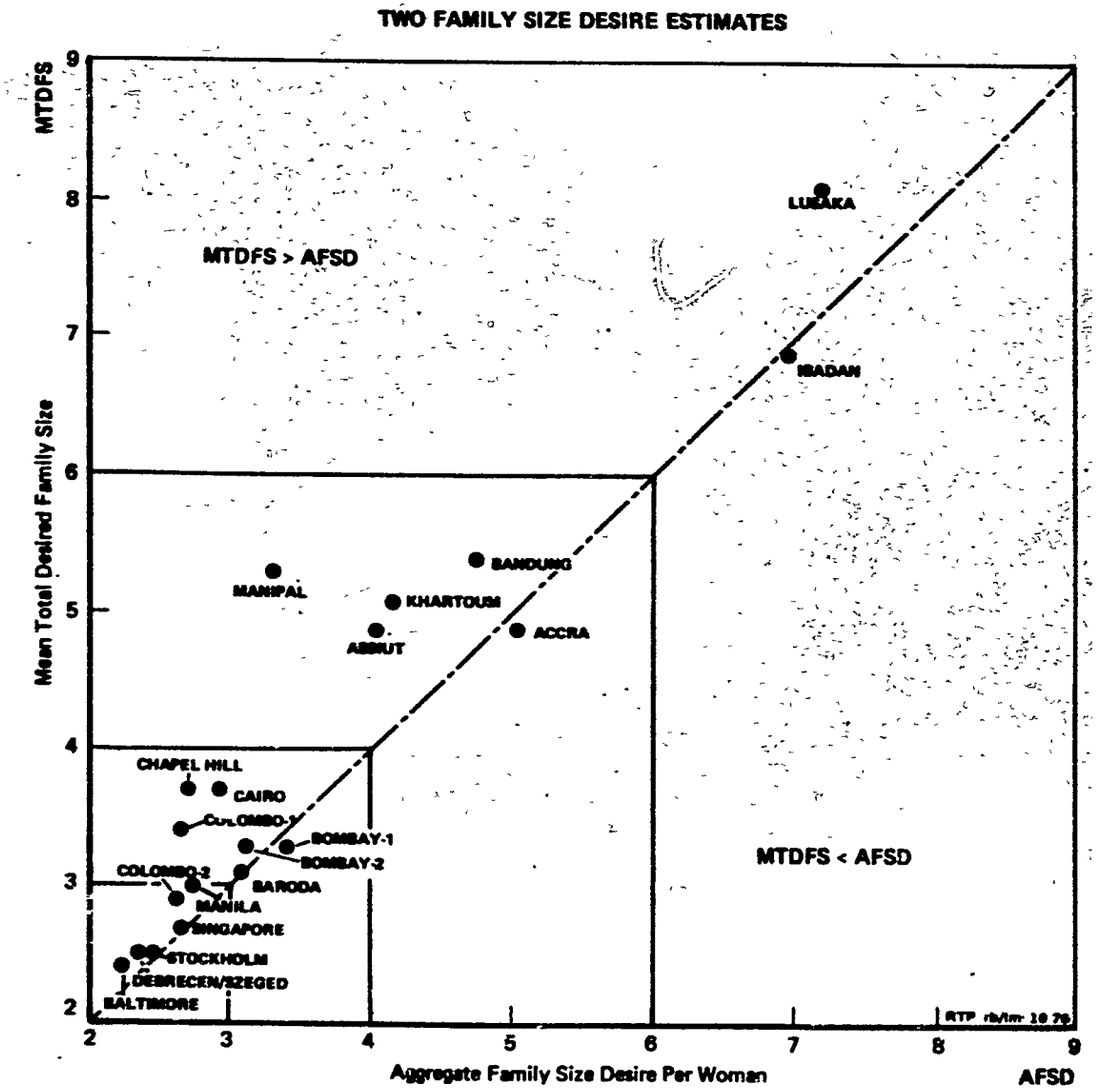

Figure 7. Charting of Two Different Family Size Desire Estimates for Each Sample Enables Refined Ranking and Broad Cluster Classification. Four Levels of Family Size Desire Emerge: (A) Very High (above 6), (B) High (4-6), (C) Moderate (3-4), and (D) Low (up to 3). *Overall the MTDFS estimate is often considerably higher than the AFSD; but both estimates enable systematic ranking. Note the lowest values for Baltimore, Debrecen/Szeged, Stockholm and Singapore and the highest values for Lusaka and Ibadan.*

FERTILITY CONTROL BY METHOD BEFORE AND AFTER THIS DELIVERY

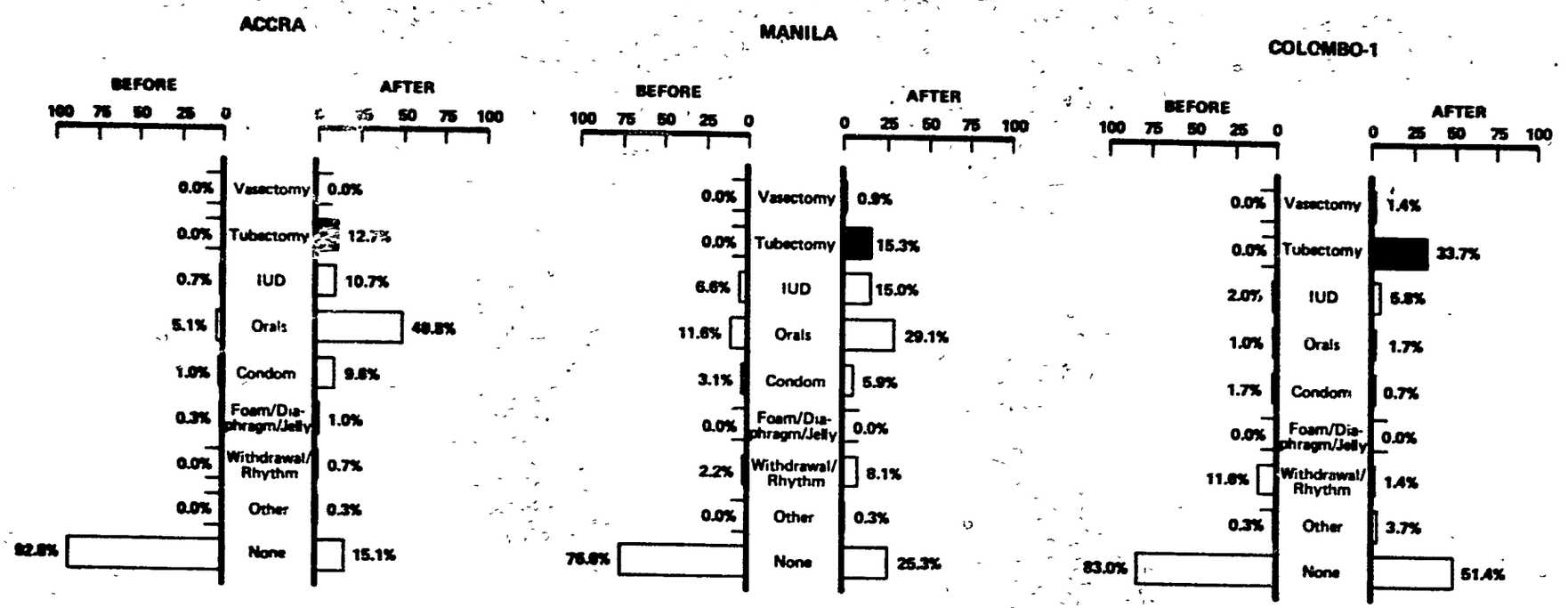

Figure 8. The Two Fertility Control Histograms Show at a Glance the Shift in Contraceptive Practice Planned After this Delivery.
These "Contraceptive Use Trees" enable easy routine Monitoring of Service Performance.

DATA PANELS

Panel 1.....Reproductive Attainment prior to this Delivery

Panel 2.....Reproductive Wastage prior to this Delivery

Panel 3.....Reproductive Loss, by Sex, prior to this Delivery

Panel 4.....Reproductive Time Frame up to this Delivery

Panel 5.....Reproductive Desire after this Delivery

Panel 6.....Reproductive Desire & Control after this Delivery

Panel 7.....Reproductive Control before & planned after this Delivery

Panel 8.....Socio-Cultural Correlates

MATERNITY PROFILE (Pretest, Summer 1976)
IPRP-FIGO

Panel 1: REPRODUCTIVE ATTAINMENT
prior to this delivery
(Tables 1.1-2.1-4/Col. 1-16)

	PLACE	Number of Women	AGE [1] Mean	AGE Median	AGE PERCENT <20	AGE PERCENT 35+	PARITY [2] Mean	PARITY Median	ORDER 0	ORDER 1	ORDER 2	ORDER 3	ORDER 4+	MEDIAN PARITY BY AGE 15-19	20-24	25-29	30-34	35-39	
1	CHAPEL HILL	272	23.2	22.8	26.8	1.9	1.0	0.6	47.1	29.0	14.3	6.3	3.3	0.2	0.7	1.1	1.3	–	1
2	BALTIMORE	294	20.6	19.3	52.0	1.0	0.8	0.4	56.5	23.8	10.5	5.4	3.7	0.1	0.8	1.6	3.3	–	2
3	STOCKHOLM	319	26.3	26.1	1.9	4.0	0.7	0.4	54.2	29.2	13.2	2.2	1.3	0.0	0.2	0.6	1.3	0.4	3
4	GENEVA	357	27.1	26.9	3.6	7.8	0.6	0.4	53.2	37.8	6.4	1.7	0.8	0.1	0.1	0.6	0.7	0.8	4
5	DEBRECEN / SZEGED	314	24.9	24.0	12.3	4.8	0.7	0.5	48.3	38.0	9.8	2.6	1.3	0.1	0.3	0.8	1.2	1.2	5
6	CAIRO	303	27.3	26.5	11.2	17.5	2.3	1.5	38.3	11.6	12.2	11.2	26.7	0.1	0.2	2.0	3.4	5.4	6
7	ASSIUT	295	27.8	27.6	8.8	15.6	3.7	3.4	16.9	14.2	9.2	9.5	50.2	0.2	1.1	3.7	5.1	7.7	7
8	KHARTOUM	469	26.5	26.2	9.8	8.8	2.6	2.1	25.6	17.3	12.4	13.6	31.1	0.4	1.0	2.8	3.5	6.9	8
9	ACCRA	293	26.5	25.6	12.0	11.7	2.3	1.7	38.2	8.2	16.7	9.6	27.3	0.1	0.4	2.0	4.4	5.9	9
10	IBADAN	272	26.9	26.9	12.9	10.3	2.9	2.7	5.9	22.9	16.9	18.8	35.7	0.9	1.5	2.7	4.3	5.6	10
11	LUSAKA	295	23.9	22.8	27.1	7.6	3.1	2.6	1.7	27.1	19.0	16.3	35.9	1.1	2.5	4.1	5.9	5.9	11
12	BARODA	310	25.0	23.9	7.4	3.8	1.5	1.4	30.6	22.3	26.1	9.4	11.6	0.1	0.8	1.9	2.4	2.5	12
13	BOMBAY-1	300	25.1	24.3	7.7	4.3	1.3	1.1	31.0	34.0	17.3	13.3	4.3	0.1	0.7	1.3	2.2	2.9	13
14	BOMBAY-2	299	25.6	24.8	10.4	6.0	1.5	1.1	30.8	30.1	18.1	9.4	13.7	0.0	0.5	1.6	2.8	3.8	14
15	MANIPAL	299	27.5	26.9	3.0	14.0	2.0	1.3	32.1	22.4	15.1	9.4	21.0	0.0	0.4	1.3	3.1	5.1	15
16	COLOMBO-1	294	26.9	26.2	4.4	9.9	1.2	0.7	44.6	22.1	14.6	10.2	8.5	0.0	0.3	1.1	1.4	2.3	16
17	COLOMBO-2	309	26.9	26.4	3.9	7.8	1.4	1.0	37.7	25.0	18.8	7.5	11.0	0.1	0.4	1.3	1.7	2.5	17
18	SINGAPORE	399	26.7	26.5	4.3	6.5	1.1	0.7	42.6	30.1	16.5	5.5	5.3	0.2	0.3	0.8	1.3	1.8	18
19	BANDUNG	318	27.3	26.3	12.0	19.6	2.7	1.9	31.8	12.6	14.5	11.9	29.2	0.1	0.8	1.9	3.8	6.2	19
20	MANILA	320	24.8	23.8	17.2	7.9	1.6	0.8	43.4	19.4	11.9	10.3	15.0	0.2	0.3	1.6	3.1	5.0	20
	Column		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	

Figure 1 — Figure 1

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1) Age in completed years at present confinement
2) Ever live born children prior to present confinement

MATERNITY PROFILE (Pretest, Summer 1976)
IFRP-FIGO

Panel 2: REPRODUCTIVE WASTAGE
prior to present confinement
(*Tables 2.1, 2.4, 2.3, 2.5; Col. 17-30*)

	PLACE	Number of Women	LIVE BIRTHS		INDUCED ABORTIONS				SPONTANEOUS ABORTIONS				STILLBIRTHS				
			Number	Rate per 100 ♀	Number	Rate per 100 ♀	Ratio per 1000 Live Births	% ♀ w/ One or More Ind.Ab.	Number	Rate per 100 ♀	Ratio per 1000 Live Births	% ♀ w/ One or More Spon.Ab.	Number	Rate per 100 ♀	Rate per 1000 Total Births	% ♀ w/ One or More Still-births	
1	CHAPEL HILL	272	263	96.7	31	11.4	117.9	9.6	65	23.9	247.2	18.0	8	2.9	29.5	2.9	1
2	BALTIMORE	294	237	80.6	69	23.5	291.1	17.7	56	19.1	236.3	15.6	5	1.7	20.7	1.7	2
3	STOCKHOLM	319	214	67.1	79	24.8	369.2	20.7	52	16.3	243.0	12.5	5	1.6	22.8	1.6	3
4	GENEVA	357	213	59.7	60	16.8	281.7	13.7	69	19.3	323.9	13.4	16	4.5	69.9	4.2	4
5	DEBRECEN, SZEGED	314	220	70.1	84	26.8	381.8	17.8	69	22.0	313.6	16.2	8	2.6	35.1	2.2	5
6	CAIRO	303	691	228.1	17	5.6	24.6	5.3	180	59.4	260.5	24.3	28	9.2	38.6	5.3	6
7	ASSIUT	295	1096	371.5	5	1.7	4.6	1.0	167	56.6	152.4	28.1	13	4.4	11.7	3.1	7
8	KHARTOUM	469	1234	263.1	6	1.3	4.9	0.9	95	20.3	77.0	12.4	62	13.2	47.8	8.3	8
9	ACCRA	293	677	231.1	51	17.4	75.3	13.7	68	23.2	100.4	13.4	38	13.0	53.2	7.5	9
10	IBADAN	272	790	290.4	3	1.1	3.8	1.1	65	23.9	82.3	15.4	18	6.6	22.3	4.8	10
11	LUSAKA	295	920	311.9	0	0.0	0.0	0.0	49	16.6	53.3	8.8	23	7.8	24.4	4.7	11
12	BARODA	310	480	154.8	2	0.7	4.2	0.6	53	17.1	110.4	11.6	12	3.9	24.4	3.9	12
13	BOMBAY-1	300	389	129.7	0	0.0	0.0	0.0	44	14.7	113.1	12.3	11	3.7	27.5	2.3	13
14	BOMBAY-2	299	461	154.2	2	0.7	4.3	0.7	42	14.0	91.1	12.0	12	4.0	25.4	3.7	14
15	MANIPAL	299	576	192.6	4	1.3	6.9	1.3	53	17.7	92.0	11.7	22	7.4	36.8	5.7	15
16	COLOMBO-1	294	315	107.1	0	0.0	0.0	0.0	35	11.9	111.1	8.2	4	1.4	12.5	1.4	16
17	COLOMBO-2	309	456	147.6	0	0.0	0.0	0.0	24	7.8	52.6	6.8	19	6.2	40.0	5.2	17
18	SINGAPORE	399	415	104.0	22	5.5	53.0	5.0	34	8.5	81.9	7.5	6	1.5	14.3	1.3	18
19	BANDUNG	318	810	254.7	1	0.3	1.2	0.3	44	13.8	54.3	11.0	15	4.7	18.2	4.9	19
20	MANILA	320	492	153.3	1	0.3	2.0	0.3	54	16.9	109.8	12.8	12	3.8	23.8	3.4	20
	Column		*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*25*	*26*	*27*	*28*	*29*	*30*	
							Figure 2				Figure 2				Figures 3 & 4		

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MATERNITY PROFILE (Pretest, Summer 1976)
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Panel 3: REPRODUCTIVE LOSS, BY SEX prior to this delivery
(*Table 8 / Col. 31-52*)

	PLACE	Number of Women	LIVE BIRTHS NUMBER M	F	MF	SEX RATIO	MEAN	INFANT DEATHS[1] NUMBER M	F	MF	SEX RATIO	MEAN	RATE PER 1000 LB	EARLY CHILDHOOD DEATHS[2] NUMBER M	F	MF	SEX RATIO	MEAN	RATE PER 1000 LB	LIVING CHILDREN NUMBER M	F	MF	SEX RATIO	MEAN	
1	CHAPEL HILL	268	129	115	244	112.2	0.88	5	1	6	..	0.02	25.3	0	1	1	..	0.00	4.2	124	113	237	109.7	0.88	1
2	BALTIMORE	276	109	88	197	123.9	0.72	3	2	5	..	0.02	25.4	0	0	0	–	0.00	0.0	106	86	192	123.3	0.70	2
3	STOCKHOLM	314	115	94	209	122.3	0.67	2	1	3	..	0.01	14.4	0	2	2	..	0.01	9.6	113	91	204	124.2	0.65	3
4	GENEVA	349	105	95	200	110.5	0.57	1	0	1	..	0.00	5.0	1	1	2	..	0.00	10.0	103	94	197	109.6	0.56	4
5	DEBRECEN SZEGED	286	106	85	191	124.7	0.67	4	0	4	..	0.01	20.9	0	1	1	..	0.01	5.2	102	84	186	121.4	0.65	5
6	CAIRO	272	339	263	602	128.9	2.21	41	22	63	186.4	0.23	104.7	17	14	31	121.4	0.11	51.5	281	227	508	123.8	1.87	6
7	ASSIUT	271	532	441	973	120.6	3.59	101	79	180	127.9	0.66	185.0	30	25	55	120.0	0.20	56.5	401	337	738	119.0	2.72	7
8	KHARTOUM	447	634	563	1197	112.6	2.68	63	27	90	233.3	0.20	75.2	14	14	28	100.0	0.06	23.4	557	527	1079	106.7	2.41	8
9	ACCRA	270	320	277	597	115.5	2.21	17	5	22	340.0	0.08	36.9	5	3	8	..	0.03	13.4	298	269	567	110.8	2.10	9
10	IBADAN	260	409	352	761	116.2	2.93	33	33	66	100.0	0.25	86.7	20	20	40	100.0	0.16	52.6	356	299	655	119.1	2.52	10
11	LUSAKA	221	335	338	673	99.1	3.05	2	1	3	..	0.01	4.5	8	0	8	..	0.04	11.9	325	337	662	96.4	3.00	11
12	BARODA	302	236	227	463	104.0	1.52	51	33	84	154.6	0.28	181.4	9	15	24	60.0	0.08	51.8	176	179	355	98.3	1.18	12
13	BOMBAY-1	296	199	184	383	108.2	1.29	24	18	42	133.3	0.14	109.7	3	5	8	..	0.03	20.9	172	161	333	106.8	1.12	13
14	BOMBAY-2	292	226	215	441	105.1	1.51	26	13	39	200.0	0.13	88.4	6	14	20	42.9	0.07	45.4	194	188	382	103.2	1.31	14
15	MANIPAL	295	287	293	580	98.0	1.97	27	16	43	168.8	0.15	74.1	12	7	19	171.4	0.06	32.8	248	270	518	91.9	1.76	15
16	COLOMBO-1	290	173	180	353	96.1	1.22	6	5	11	..	0.04	31.2	1	2	3	..	0.01	8.5	166	173	339	96.8	1.17	16
17	COLOMBO-2	296	191	204	395	93.6	1.33	6	6	12	..	0.04	30.4	1	2	3	..	0.01	7.6	184	196	380	93.9	1.28	17
18	SINGAPORE	387	209	180	389	116.1	1.01	1	2	3	..	0.01	7.7	1	1	2	..	0.01	5.1	207	177	384	117.0	0.99	18
19	BANDUNG	314	407	409	816	99.5	2.60	28	23	51	121.7	0.16	62.5	25	18	43	138.9	0.14	52.7	354	368	722	96.2	2.30	19
20	MANILA	314	267	212	479	125.9	1.53	21	10	31	210.0	0.10	64.7	7	11	18	63.6	0.06	37.6	239	191	430	125.1	1.37	20
	Column		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	

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Figure 5

Figure 5

1) Deaths occurring during first year of life (0-11 months)
2) Deaths occurring during second to fifth year of life (12-59 months)

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MATERNITY PROFILE (Pretest, Summer 1976)
IFRP-FIGO

Panel 4: REPRODUCTIVE TIME FRAME

(*Tables 3,2.6,2.7,7 / Col. 53-73*)

	PLACE	Number of Women	MEAN DURATION IN YEARS: MARRIAGE Age	MARRIAGE Duration	Present Age	Age of Youngest Child (LCBI)[1]	Marriage Duration minus LCBI	Previous Live Births (Mean)	Closed Birth Interval Before This Pregnancy (PCBI)[2]	Last Pregnancy Interval (LPI)[3]	YOUNGEST CHILD: AGE in Years Mean	AGE in Years Median	BREAST-FEEDING in Months Mean	BREAST-FEEDING in Months Median	MEDIAN PARITY BY DURATION OF CURRENT MARRIAGE: Years <1	1-2	3-4	5-9	10-14	15-19	20-24	ALL DURATIONS	MEDIAN DURATION OF CURRENT MARRIAGE in Years	
1	CHAPEL HILL	272	20.4	4.3	23.2	1.5	2.4	1.0	2.5	0.9	2.9	2.6	0.9	0.1	0.2	0.5	0.8	1.2	1.6	-	-	0.6	3.5	1
2	BALTIMORE	294	19.3	1.1	20.6	1.2	-0.3	0.8	0.0	0.6	2.8	2.3	0.4	0.0	0.2	0.4	1.1	2.0	-	-	-	0.4	0.8	2
3	STOCKHOLM	319	23.3	3.4	26.3	1.7	1.8	0.7	2.0	0.9	3.3	3.0	4.0	3.7	0.0	0.2	0.9	1.2	1.7	-	-	0.4	2.7	3
4	GENEVA	357	23.4	3.8	27.1	1.5	2.5	0.6	2.8	0.6	2.6	2.3	4.8	7.0	0.0	0.1	0.8	0.9	0.9	-	-	0.4	3.0	4
5	DEBRECEN/SZEGED	314	20.7	4.3	24.9	1.7	2.5	0.7	3.0	1.0	3.1	2.7	5.2	4.5	0.1	0.7	1.0	1.4	-	-	-	0.5	3.1	5
6	CAIRO	303	19.7	6.9	27.3	1.5	5.5	2.3	2.4	0.6	2.2	2.0	9.9	10.2	-	0.1	0.4	2.6	4.1	5.1	6.1	1.5	4.9	6
7	ASSIUT	295	18.0	8.9	27.8	2.1	6.8	3.7	2.1	1.4	2.6	2.4	14.6	14.1	-	0.2	1.1	2.9	5.1	6.3	8.0	3.5	6.1	7
8	KHARTOUM	469	18.8	7.0	26.5	2.0	5.1	2.6	2.1	1.1	2.5	2.3	na	na	-	0.2	1.4	2.6	4.6	5.5	8.5	2.1	5.1	8
9	ACCRA	293	20.5	5.5	26.5	1.6	3.9	2.3	1.6	0.9	2.6	2.3	10.7	11.7	-	0.1	1.6	2.9	5.0	5.7	-	1.7	3.6	9
10	IBADAN	272	18.9	7.5	26.9	2.5	5.0	2.9	2.1	1.7	2.5	2.5	12.7	12.3	-	0.9	2.0	3.0	4.3	4.7	6.7	2.7	5.3	10
11	LUSAKA	295	18.3	5.7	23.9	0.6	5.1	3.1	1.3	-0.2	0.5	0.1	12.2	12.3	2.2	1.1	2.2	3.4	5.1	6.6	-	2.6	3.9	11
12	BARODA	310	18.0	6.5	25.0	2.0	4.6	1.5	3.3	1.2	3.0	2.7	13.8	12.3	-	0.1	0.7	1.8	2.6	2.8	-	1.4	5.0	12
13	BOMBAY-1	300	17.7	6.7	25.1	2.0	4.6	1.3	3.8	1.3	2.9	2.6	18.4	17.9	-	0.0	0.8	1.3	2.3	2.9	-	1.1	5.2	13
14	BOMBAY-2	299	17.4	7.3	25.6	1.8	5.4	1.5	3.7	1.2	2.9	2.7	17.2	18.0	-	0.0	0.8	1.1	2.7	3.5	4.0	1.1	5.3	14
15	MANIPAL	299	20.4	7.0	27.5	1.9	5.2	2.0	2.7	1.1	2.6	2.3	16.3	12.4	-	0.0	0.9	1.7	3.8	5.2	6.8	1.3	4.9	15
16	COLOMBO-1	294	21.8	5.0	26.9	1.7	3.2	1.2	2.2	1.0	3.1	2.7	14.5	11.6	-	0.0	0.9	1.8	3.1	-	-	0.7	3.5	16
17	COLOMBO-2	309	21.8	5.1	26.9	1.9	3.2	1.4	2.3	1.1	2.9	2.5	12.1	9.7	-	0.0	0.9	1.9	3.4	4.8	-	1.0	3.9	17
18	SINGAPORE	399	22.8	3.8	26.7	1.9	2.1	1.1	1.9	0.9	2.8	2.7	1.6	0.4	-	0.1	1.0	1.9	3.0	-	-	0.7	2.8	18
19	BANDUNG	318	19.8	7.1	27.3	1.9	5.3	2.7	2.1	1.1	2.8	2.3	11.5	11.9	-	0.1	1.2	2.5	4.8	6.4	7.8	1.9	4.9	19
20	MANILA	320	20.5	4.4	24.8	1.4	3.0	1.6	1.4	0.6	2.4	2.2	9.4	4.3	0.0	0.2	1.1	2.4	4.8	-	-	0.8	3.1	20
	Column		53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	

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1) LCBI: Last Closed Birth Interval (=Age of Youngest Child, mean)
2) PCBI: Previous Closed Birth Intervals ,mean ((Duration of Marriage minus 0.75 Years)/Live Births anterior to this delivery)
3) LPI: Last Pregnancy Interval (=Age of Youngest Child minus 0.75 Years)

MATERNITY PROFILE (Pretest, Summer 1976)
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Panel 5: REPRODUCTIVE DESIRE after this delivery
(*Tables 3.5 / Col. 74-89*)

	PLACE	Number of Women	MEAN NUMBER: Living Children	Babies Alive at Delivery	Additional Children Wanted	TOTAL	MEAN TOTAL DESIRED FAMILY SIZE BY PARITY: 0	1	2	3	4	5	6	BY AGE: 15-19	20-24	25-29	30-34	35-39	
1	CHAPEL HILL	272	0.9	1.0	1.5	3.7	3.5	3.6	3.3	4.1	-	-	-	4.8	3.6	3.2	3.4	-	1
2	BALTIMORE	294	0.7	1.0	0.7	2.4	1.9	2.4	3.1	4.2	-	-	-	2.0	2.5	3.2	3.8	-	2
3	STOCKHOLM	319	0.6	1.0	0.8	2.5	2.1	2.8	3.0	-	-	-	-	-	2.2	2.6	2.9	-	3
4	GENEVA	357	0.6	1.0	na	na				na						na			4
5	DEBRECEN, SZEGED	314	0.7	1.0	0.8	2.5	2.3	2.4	3.2	-	-	-	-	2.3	2.4	2.4	2.7	-	5
6	CAIRO	303	1.8	1.0	0.9	3.7	2.6	3.4	3.4	3.7	4.6	5.5	-	2.5	2.9	3.6	4.3	5.2	6
7	ASSIUT	295	2.7	1.0	1.1	4.9	4.0	4.1	4.3	3.8	5.1	5.1	5.8	4.7	3.8	4.8	5.2	6.3	7
8	KHARTOUM	469	2.3	1.0	1.7	5.1	4.2	4.1	4.2	5.1	5.4	5.9	6.4	4.0	4.5	5.0	5.4	7.4	8
9	ACCRA	293	2.1	1.0	1.8	4.9	3.5	4.6	4.8	5.3	6.3	6.7	6.9	3.6	4.1	5.1	6.2	6.6	9
10	IBADAN	272	2.5	1.0	3.4	6.9	5.4	6.0	7.6	7.0	7.3	7.1	7.5	6.1	6.6	7.0	7.4	6.9	10
11	LUSAKA	295	3.0	1.0	3.9	8.1	0.0	6.9	7.3	7.2	9.9	9.4	9.7	7.6	7.3	9.0	9.1	10.5	11
12	BARODA	310	1.2	0.9	1.0	3.1	2.6	2.7	3.2	3.8	4.1	-	-	2.7	2.8	3.1	3.6	3.6	12
13	BOMBAY-1	300	1.1	0.9	1.2	3.3	3.0	3.2	3.2	3.8	-	-	-	3.1	3.2	3.3	3.7	4.0	13
14	BOMBAY-2	299	1.3	1.0	1.0	3.3	2.9	2.9	3.2	3.7	4.6	5.3	-	2.8	3.0	3.2	3.9	4.8	14
15	MANIPAL	299	1.7	0.9	2.6	5.3	5.0	5.4	5.0	5.2	5.0	5.0	6.2	7.6	5.4	5.1	4.6	5.5	15
16	COLOMBO-1	294	1.2	1.0	1.2	3.4	3.2	2.8	3.1	4.2	4.9	4.9	-	2.6	3.0	3.6	3.5	3.9	16
17	COLOMBO-2	309	1.3	1.0	0.6	2.9	2.1	2.6	3.2	3.8	4.9	-	-	2.4	2.3	2.9	3.5	4.0	17
18	SINGAPORE	399	1.0	1.0	0.7	2.7	2.2	2.5	3.1	4.1	4.9	-	-	2.3	2.5	2.7	2.9	3.2	18
19	BANDUNG	318	2.3	0.9	2.1	5.4	4.3	5.3	4.8	5.3	5.2	6.8	6.2	5.1	4.6	4.8	5.1	7.5	19
20	MANILA	320	1.4	1.0	0.7	3.0	2.1	2.6	3.2	3.8	4.6	5.9	-	2.3	2.4	3.3	4.0	5.4	20
	Column		74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	

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Panel 6: REPRODUCTIVE DESIRE & CONTROL
after this delivery
(Tables 16,3,15.4/Col.90-102)

	PLACE	Number of Women	PERCENT WOMEN WANTING ADDITIONAL CHILDREN BY NUMBER OF LIVING CHILDREN (including this delivery) 1	2	3	4	5	6	7	8	9	10	AGGREGATE FAMILY SIZE DESIRE PER WOMEN[1] AFSD	MEAN TOTAL DESIRED FAMILY SIZE[2] MTDFS	PERCENT WOMEN WITH PLANNED POSTPARTUM CONTRACEPTION	
1	CHAPEL HILL	272	86.3	44.2	24.3	16.7	..						2.71	3.7	90.6	1
2	BALTIMORE	294	67.3	31.4	16.7	7.7	..						2.23	2.4	96.0	2
3	STOCKHOLM	319	70.9	74.5	2.6	0.0							2.48	2.5	83.5	3
4	GENEVA	357											na	na	na	4
5	DEBRECEN SZEGED		90.1	33.7	12.0	0.0							2.36	2.5	83.9	5
6	CAIRO	303	91.5	66.7	35.3	0.0	0.0						2.94	3.7	76.5	6
7	ASSIUT	295	95.9	85.4	41.9	36.1	15.8	12.0	15.8	0.0			4.03	4.9	64.2	7
8	KHARTOUM	469	84.0	78.7	56.4	51.0	27.9	12.0	4.8	0.0	..		4.15	5.1	50.8	8
9	ACCRA	293	97.2	100.0	87.5	70.0	33.3	15.4	..				5.03	4.9	84.9	9
10	IBADAN	272	90.0	95.4	97.9	96.1	87.2	72.7	58.3	..	..		6.98	6.9	77.9	10
11	LUSAKA	295	..	78.8	81.6	68.7	83.3	53.8	63.6	57.1	33.3	..	7.20	8.1	53.2	11
12	BARODA	310	94.3	69.0	42.0	3.6	0.0						3.09	3.1	66.1	12
13	BOMBAY-1	300	97.8	94.5	34.9	14.3	0.0	..					3.42	3.3	24.4	13
14	BOMBAY-2	299	99.0	81.6	30.2	0.0	0.0						3.11	3.3	55.9	14
15	MANIPAL	299	97.9	78.5	36.2	14.8	4.2	..					3.31	5.3	55.7	15
16	COLOMBO-1	294	91.5	48.5	12.2	7.4	7.7	..					2.67	3.4	48.5	16
17	COLOMBO-2	309	95.6	52.0	16.7	0.0	0.0						2.64	2.9	85.8	17
18	SINGAPORE	399	96.5	50.9	12.3	9.1	0.0						2.68	2.7	98.5	18
19	BANDUNG	318	99.0	84.4	81.1	46.3	18.7	38.1	5.9	0.0	..		4.74	5.4	70.7	19
20	MANILA	320	92.1	51.5	27.8	10.3	0.0	0.0	..				2.74	3.0	74.7	20
		Column	90	91	92	93	94	95	96	97	98	99	100	101	102	

.....Figure 6..... Figure 7

1) First live birth plus sum of living children specific 'spacer proportions'.
2) MTDFS: Sum total of means of living children live births this confinement and additional children desired.

MATERNITY PROFILE (Pretest, Summer 1976)
IFRP-FIGO

Panel 7: REPRODUCTIVE CONTROL before and planned after this delivery

(*Tables 15.3, 15.4; Col. 103-121*)

	PLACE	Number of Women	Male Sterilization B	Male Sterilization A	Female Sterilization B	Female Sterilization A	IUD B	IUD A	Orals B	Orals A	Condom B	Condom A	Foam, Diaphragm, Jelly B	Foam, Diaphragm, Jelly A	Withdrawal, Rhythm B	Withdrawal, Rhythm A	Other B	Other A	None B	None A	Post Partum PROTECTION LEVEL (%) [Planned, All Methods]	
			CONTRACEPTIVE METHOD USED BEFORE (B) .... AND PLANNED AFTER (A) THIS PREGNANCY — PERCENT USER SHIFT BY METHOD (→ INCREASE OF 10 or more percent)																			
1	CHAPEL HILL	272	0.0	2.1 (+2.1)	0.0	22.0 (→ +22.0)	4.1	12.2 (+8.1)	22.5	39.2 (→ +16.7)	3.0	5.9 (+2.9)	7.0	9.3 (+2.3)	0.0	0.8 (+0.8)	0.7	0.0 (-0.7)	62.5	8.5 (-54.0)	91.5	1
2	BALTIMORE	294	0.0	0.3 (+0.3)	0.3	16.3 (→ +16.0)	3.7	19.1 (→ +15.3)	24.5	50.4 (→ +25.9)	0.0	1.0 (+1.0)	1.0	1.7 (+0.7)	0.3	0.0 (-0.3)	○		70.1	11.2 (-58.9)	88.8	2
3	STOCKHOLM	219	○		0.0	0.6 (+0.6)	5.1	21.8 (→ +16.7)	30.2	59.5 (→ +29.3)	3.2	0.0 (-3.2)	1.9	1.6 (-0.3)	5.4	0.0 (-5.4)	0.5	0.0 (-0.5)	54.0	16.5 (-37.5)	83.5	3
4	GENEVA	357	0.0	na	0.0	na	2.0	na	22.7	na	2.2	na	3.6	na	8.1	na	0.0	na	61.4	na	na	4
5	DEBRECEN, SZEGED	314	○		○		5.4	33.4 (→ +28.0)	29.5	45.7 (→ +16.2)	1.9	1.9 (0.0)	0.3	0.6 (+0.3)	1.3	1.9 (+0.6)	0.3	0.3 (0.0)	60.8	16.1 (-44.7)	83.9	5
6	CAIRO	303	○		0.0	4.6 (+4.6)	3.6	33.1 (→ +29.5)	10.2	38.7 (→ +28.5)	○		○		0.7	0.0 (-0.7)	○		85.5	23.5 (-62.0)	76.5	6
7	ASSUIT	295	○		0.0	8.5 (+8.5)	1.4	6.1 (+4.7)	15.9	44.7 (→ +28.8)	0.3	0.7 (+0.4)	0.0	0.7 (+0.7)	0.0	0.7 (+0.7)	0.3	2.4 (+2.1)	82.0	36.3 (-45.7)	63.7	7
8	KHARTOUM	469	0.0	0.2 (+0.2)	0.0	14.1 (→ +14.1)	0.0	1.5 (+1.5)	11.9	34.0 (→ +22.1)	0.0	0.2 (+0.2)	0.0	0.2 (+0.2)	0.2	0.2 (0.0)	0.0	0.2 (+0.2)	87.8	49.3 (-38.5)	50.7	8
9	ACCRA	293	0.0	0.0 (0.0)	0.0	12.7 (→ +12.7)	0.7	10.7 (→ +10.0)	5.1	49.8 (→ +44.7)	1.0	9.6 (+8.6)	0.3	1.0 (+0.7)	0.0	0.7 (+0.7)	0.0	0.3 (+0.3)	92.8	15.1 (-77.7)	84.9	9
10	IBADAN	272	0.4	0.0 (-0.4)	0.0	2.2 (+2.2)	3.7	24.3 (→ +20.6)	2.9	33.5 (→ +30.6)	1.5	1.1 (-0.4)	0.4	0.0 (-0.4)	3.3	3.3 (0.0)	0.7	13.2 (→ +12.5)	87.1	22.5 (-64.6)	77.5	10
11	LUSAKA	295	○		0.0	1.7 (+1.7)	1.7	3.7 (+2.0)	8.8	40.0 (→ +31.2)	0.7	0.7 (0.0)	○		0.0	0.0 (0.0)	1.0	7.1 (+6.1)	87.8	46.8 (-41.0)	75.2	11
12	BARODA	310	0.0	1.9 (+1.9)	0.0	19.4 (→ +19.4)	1.0	21.0 (→ +20.0)	0.3	7.1 (+6.8)	1.6	15.2 (→ +13.6)	○		0.0	1.3 (+1.3)	0.3	0.3 (0.0)	96.5	33.9 (-62.6)	66.1	12
13	BOMBAY-1	300	0.0	0.3 (+0.3)	0.0	21.4 (→ +21.4)	1.0	1.7 (+0.7)	1.3	0.7 (-0.6)	○		0.3	0.0 (-0.3)	0.0	0.0 (0.0)	0.0	0.3 (+0.3)	97.3	75.6 (-21.7)	24.4	13
14	BOMBAY-2	299	0.0	2.3 (+2.3)	0.0	27.1 (→ +27.1)	0.7	3.3 (+2.6)	2.0	7.7 (+5.7)	1.3	15.4 (→ +14.1)	○		○		○		96.0	44.1 (-51.9)	55.9	14
15	MANIPAL	299	0.0	2.3 (+2.3)	0.0	32.6 (→ +32.6)	2.0	4.0 (+2.0)	1.7	14.1 (→ +12.4)	2.0	1.3 (-0.7)	○		0.3	1.3 (+1.0)	○		94.0	44.3 (-49.7)	55.7	15
16	COLOMBO-1	294	0.0	1.4 (+1.4)	0.0	33.7 (→ +33.7)	2.0	5.8 (+3.8)	1.0	1.7 (+0.7)	1.7	0.7 (-1.0)	○		11.6	1.4 (-10.2)	0.3	3.7 (+3.4)	83.0	51.4 (-31.6)	48.6	16
17	COLOMBO-2	320	0.0	3.2 (+3.2)	0.0	25.2 (→ +25.2)	0.3	4.5 (+4.2)	1.3	34.0 (→ +32.7)	6.5	5.5 (-1.0)	○		14.6	11.7 (-2.9)	0.3	1.6 (+1.3)	77.0	14.2 (-62.8)	85.8	17
18	SINGAPORE	399	0.0	0.5 (+0.5)	0.0	17.5 (→ +17.5)	0.5	1.5 (+1.0)	19.8	45.9 (→ +26.1)	18.5	22.1 (+3.6)	○		4.5	4.5 (0.0)	2.0	6.5 (+4.5)	54.6	1.5 (-53.1)	98.5	18
19	BANDUNG	318	0.0	1.6 (+1.6)	0.3	14.8 (→ +14.5)	2.5	27.1 (→ +24.6)	6.9	7.9 (+1.0)	1.3	1.3 (0.0)	○		0.9	0.3 (-0.6)	1.3	17.7 (→ +16.4)	86.8	29.3 (-57.5)	70.7	19
20	MANILA	320	0.0	0.9 (+0.9)	0.0	15.3 (→ +15.3)	6.6	15.0 (+8.4)	11.6	29.1 (→ +17.5)	3.1	5.9 (+2.8)	○		2.2	8.1 (5.9)	0.0	0.3 (+0.3)	76.6	25.3 (-51.3)	74.7	20
	Column		103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	

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Figure 8

MATERNITY PROFILE (Pretest, Summer 1976)
IFRP-FIGO

Panel 8: SOCIO-CULTURAL CORRELATES

(*Tables 1.3, 1.4, 1.5, 1.8, 1.2; Col. 122-142*)

			EDUCATION IN YEARS						RESIDENCE			RELIGION									MARITAL STATUS			
			WIFE			HUSBAND			% Women			% Women									% Women			
	PLACE	Number of Women	Mean	% Women 0	% Women 7+	Mean	% Men 0	% Men 7+	Urban	Rural	Slum	Buddhist	Catholic	Hindu	Jewish	Muslim	Orthodox	Protes-tant	Other	None	Never Married	Currently Married	Formerly Married	
1	CHAPEL HILL	272	10.8	0.0	98.5	11.3	0.0	98.3	75.1	23.8	1.1	0.0	2.9	0.0	0.4	0.0	0.0	78.3	1.5	16.9	25.3	67.9	6.8	1
2	BALTIMORE	294	10.5	0.0	100.0	10.5	1.3	97.4	30.3	11.6	58.2	0.0	14.3	1.2	0.0	0.0	0.0	72.0	10.3	2.0	58.3	24.4	7.3	2
3	STOCKHOLM	319	10.1	0.9	95.6	7.4	37.3	60.7	92.8	7.2	0.0	0.6	1.9	0.0	0.0	0.0	0.3	96.2	0.0	0.9	43.7	55.7	0.6	3
4	GENEVA	257	7.8	0.0	80.3	8.3	4.8	82.0	88.0	12.0	0.0	0.3	69.7	0.0	0.8	0.6	0.6	26.6	1.4	0.0	3.9	95.5	0.6	4
5	DEBRECEN SZEGED	314	9.4	0.0	93.6	9.2	3.5	91.7	63.4	36.3	0.3	0.0	22.6	0.0	0.5	0.5	0.0	2.6	0.0	73.8	4.2	95.2	0.6	5
6	CAIRO	303	2.0	34.4	5.3	5.1	9.3	29.2	78.5	15.8	5.6	0.0	1.0	0.0	0.0	96.0	2.3	0.0	0.0	0.7	0.3	99.7	0.0	6
7	ASSIUT	295	2.5	49.7	9.9	5.5	19.2	35.4	13.2	84.7	2.0	0.3	1.7	0.0	0.0	92.9	4.4	0.7	0.0	0.0	0.0	100.0	0.0	7
8	KHARTOUM	469	3.4	50.8	22.5	5.9	33.0	44.6	43.9	38.8	17.3	0.0	1.1	0.0	0.0	97.7	0.6	0.0	0.2	0.4	0.9	97.8	1.3	8
9	ACCRA	293	5.4	44.4	46.1	8.4	24.3	72.3	99.3	0.7	0.0	0.3	12.6	0.3	0.0	13.7	0.0	64.9	8.5	9.6	3.1	96.6	0.3	9
10	IBADAN	272	1.9	67.9	9.9	3.9	41.0	23.5	75.7	20.2	4.0	0.0	9.9	0.4	0.0	58.8	0.0	29.8	0.4	0.7	1.8	98.2	0.0	10
11	LUSAKA	295	1.6	31.1	0.7	2.1	14.6	2.4	87.0	13.0	0.0	7.0	42.8	2.1	0.0	0.3	0.0	30.8	12.3	3.8	4.2	95.1	0.7	11
12	BARODA	310	3.7	42.6	28.4	6.8	14.0	53.6	74.5	21.6	3.9	0.6	1.0	91.6	0.0	6.5	0.0	0.0	0.3	0.0	0.0	99.7	0.3	12
13	BOMBAY-1	300	3.5	47.0	26.7	6.4	22.6	53.4	90.7	1.0	3.3	0.3	2.0	93.0	0.0	4.7	0.0	0.0	0.0	0.0	1.3	98.0	0.7	13
14	BOMBAY-2	299	2.9	55.2	20.4	5.4	29.1	39.9	36.1	7.7	56.2	13.4	3.4	65.4	0.0	16.8	0.0	1.0	0.0	0.0	0.3	99.3	0.3	14
15	MANIPAL	299	6.3	21.1	43.5	7.9	8.8	54.9	28.8	71.2	0.0	0.0	3.7	90.3	0.0	4.3	0.0	1.7	0.0	0.0	0.7	99.3	0.0	15
16	COLOMBO-1	294	7.3	4.8	73.6	7.5	3.8	71.1	51.2	43.3	5.5	71.0	12.6	5.5	0.0	9.2	0.0	1.7	0.0	0.0	1.4	98.6	0.0	16
17	COLOMBO-2	309	6.9	4.2	59.5	7.8	1.3	74.4	68.3	17.5	14.2	79.0	8.7	6.8	0.0	5.5	0.0	0.0	0.0	0.0	1.9	98.1	0.0	17
18	SINGAPORE	399	5.8	16.0	39.3	7.5	4.0	56.4	82.5	17.5	0.0	66.9	5.8	3.0	0.0	13.0	0.0	3.8	0.5	0.0	0.8	99.2	0.0	18
19	BANDUNG	318	7.2	3.5	51.3	8.6	0.9	66.6	81.1	16.7	2.2	0.3	0.9	1.6	0.0	95.0	0.0	2.2	0.0	0.0	0.0	97.2	2.8	19
20	MANILA	320	8.0	0.9	58.8	8.9	0.0	71.0	71.2	13.8	15.0	0.0	96.6	0.0	0.0	0.0	0.0	0.6	2.8	0.0	2.2	97.2	0.6	20
	Column		122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	

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ACKNOWLEDGEMENT AND OUTLOOK

Foremost credit for this review goes to the IFRP Contributors who have been willing to pretest, on short notice from Dr. Hubert de Watteville (Secretary-General, FIGO) and Dr. Elton Kessel (Director, IFRP), an advanced draft questionnaire for the routine management of maternity care. Credit also goes to Dr. Judith Fortney (Research Associate, IFRP) who has achieved the difficult task, together with IFRP's Data Processing Division, of securing timely entry of this new data base into the computer and conceiving and writing the computer program that yields an unusually rich tabulation output. Last, but certainly not least, I would wish to acknowledge the insuperable technical assistance of Ellen Kendall and Edgar Adcock who, during the last five days, have worked day and deep into the night to draft the data panels and figures and to help conceptualize the figures. The division of labor in analyzing the pretest results for the clinical (Dr. Fortney) and the socio-demographic part has proved to be mutually inspiring.

The single most interesting feature of this pretest is the fact that the Contributors to IFRP have not only expressed the need for a maternity record but also provided critically needed input during its conceptualization and design. The cooperative spirit among leaders of Obstetrics and Gynaecology on the five continents and the research staff at IFRP headquarters set the stage for the present thrust of this review, which was produced in five days.

It is apparent that this new research thrust will expand rapidly to provide routine feedback to Contributors and various institutions of research and service management in maternal and child health.

IFRP/RTP, 15 October 1976

Roger P. Bernard, MD, MSPM
Director of Field Epidemiology, IFRP

W

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BIRTHWEIGHT
Columns: 400-472
Panels: 21-24
Figures: 21-26

October 1976

MATERNITY CARE MONITORING LEADING TO REPRODUCTIVE EPIDEMIOLOGY

Maternity Record Pretest, Summer 1976
IFRP-FIGO

Prepared for the Contributors to the Maternity Record Pretest

from
International Fertility Research Program, Research Triangle Park, North Carolina, 27709, USA, and International Federation of Gynecology & Obstetrics, Maternité, 1211, Genève, Suisse

This work was supported in part by the International Fertility Research Program (AID-csd-2979).

MATERNITY RECORD

The IFRP Maternity Record is designed to collect information on delivery. Data are collected on the socioeconomic characteristics, the reproductive history, and the antenatal care of the patient, the management and outcome of the delivery, the postpartum status of the mother and of the infant, and the patient's plans for postpartum contraception.

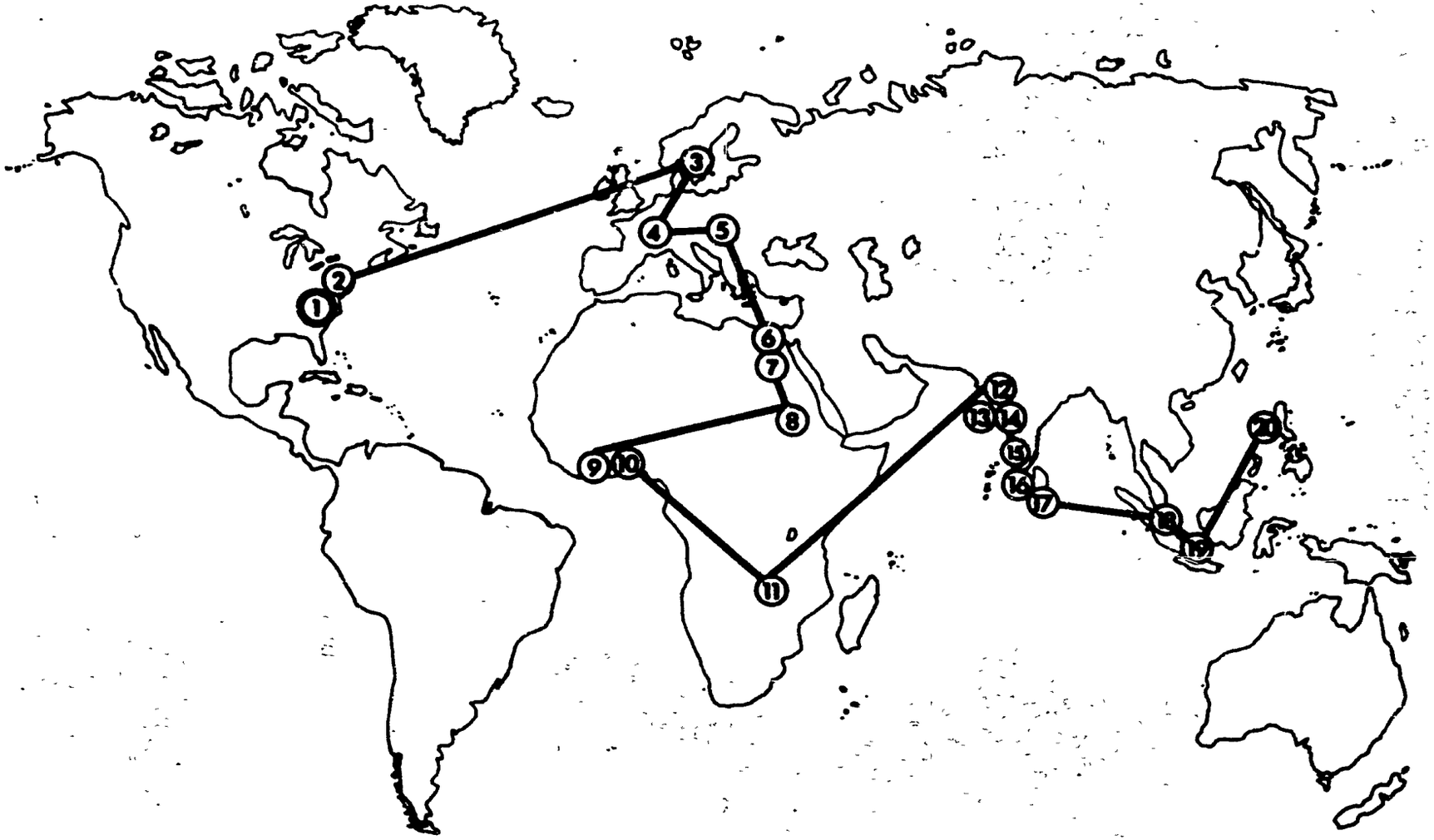
In addition, questions of the contributor's choice may be added in the Special Studies box. Both the questions and the codes are at the contributor's discretion but the IFRP may make recommendations for comparability with other centers that use the form.

The forms are designed to be processed without queries. The absence of queries minimizes the amount of paperwork involved in this study. However, the quality of the data is therefore critically dependent on accurate responses and recording of data. Forms will not be processed for analysis if the coded responses to certain key questions are either unknown or inconsistent. There will be a pretest period to enable each contributor to minimize recording problems.

Standard Analysis Tables will be provided upon request which will assist the contributor in writing both administrative and research reports.

Obstetricians who feel that the Maternity Record could bring a new dimension to pregnancy management should feel free to contact either IFRP or FIGO.

INTERNATIONAL MATERNITY RECORD PRETEST, SUMMER 1976
IFRP-FIGO



AMERICAS	EUROPE	AFRICA	MIDDLE SOUTH ASIA	SOUTHEAST ASIA	
		6 Cairo	12 Baroda		
		7 Assiut	13 Bombay-1		
	3 Stockholm	8 Khartoum	14 Bombay-2		
	4 Geneva	9 Accra	15 Manipal		
1 Chapel Hill	5 Debrecen	10 Ibadan	16 Colombo-1		19 Bandung
2 Baltimore	Szeged	11 Lusaka	17 Colombo-2	18 Singapore	20 Manila

IDENTIFICATION OF SELECTED DATA SETS
('300' Frequency Level)

AREA	PLACE	DATA SET	TIME SPAN	DELIVERIES
AMERICAS	Chapel Hill	1	June to Sept. 1976	272
	Baltimore	2	July to Aug. 1976	294
EUROPE	Stockholm	3	June to Aug. 1976	319
	Geneva	4	Jan. to March 1976	357
	Debrecen/Szeged	5	Aug. to Sept. 1976	314
AFRICA	Cairo	6	June 1 to 30 1976	303
	Assiut	7	June to Aug. 1976	295
	Khartoum	8	May to Aug. 1976	469
	Accra	9	Aug. 10 to 27 1976	293
	Ibadan	10	June to Aug. 1976	272
	Lusaka	11	July to Sept. 1976	295
MIDDLE SOUTH ASIA	Baroda	12	June to Sept. 1976	310
	Bombay-1	13	June to July 1976	300
	Bombay-2	14	May to Aug. 1976	299
	Manipal	15	Jan. to June 1976	299
	Colombo-1	16	July to Aug. 1976	294
	Colombo-2	17	July to Aug. 1976	309
SOUTHEAST ASIA	Singapore	18	April to Sept 1976	399
	Bandung	19	June to Aug. 1976	318
	Manila	20	Aug. to Sept 1976	320
International		20	Summer 1976	6,331

A BRIEF NARRATIVE

Review of the reproductive profile (prior to the present delivery) recorded in the IFRP-FIGO Maternity Record Pretest conducted during the summer of 1976 shows that the cross-sectional recall data on human reproduction were quite accurately reported and recorded for the majority of the more than 20 institutions in 14 countries (Maternity Care Monitoring, No. 1: Reproductive Profile, October 1976).

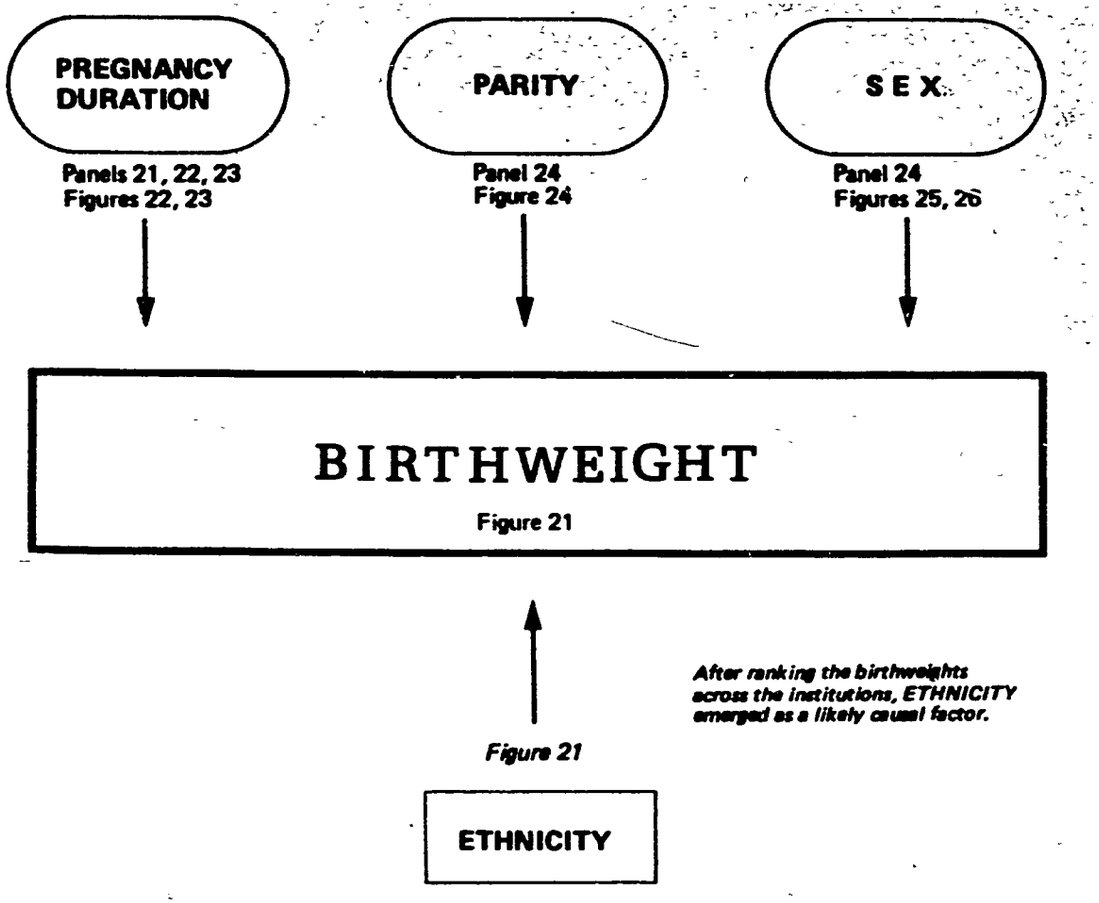
Rank comparison of any variable across these institutions shows potential for both (1) quality control and (2) geographical mapping of the specific risks associated with human reproduction. This mapping may then help to pinpoint socio-cultural and other factors affecting and possibly effecting specific risks.

This review presents the statistical findings on only one cross-sectional observation variable as measured and recorded by the maternity staff: birthweight. If this sensitive variable as measured across the 20 data sets of a rather small sample size (300-frequency level) were to yield patterns consistent with commonly known patterns, a direct proof will have been given of relative reliability and hence validity of the routine Maternity Care Monitoring approach. Birthweight data are presented as follows:

	Topic		Column
Panel 21	Birthweight by Duration of Pregnancy:	Three Classes	400-417
Panel 22	Birthweight by Duration of Pregnancy:	Four Classes	418-433
Panel 23	Duration of Pregnancy by Birthweight:	Six Classes	434-456
Panel 24	Birthweight by Parity and Sex:	Five Classes	457-472

The clarity of this arrangement provides instant access to the various indicators by topic and by institution. Indeed, any of the 72 indicators across the 20 institutions (72 X 20 = 1440 bits of information) can be compared within seconds. The present review of the data confirms that birthweight was recorded quite accurately in the overwhelming majority of centers participating in the Maternity Record Pretest. It would appear that the maternity ward may then become a new laboratory for routine research into reproductive epidemiology around the world. This would pave the way for systematic examination of "epidemiological reflectiveness" (surveillance data) as opposed to "statistical representativeness" (sampling data).

CONTENTS



After ranking the birthweights across the institutions, ETHNICITY emerged as a likely causal factor.

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FINDINGS

Figure 21 ..... Birthweight: Mean and Percent Infants < 2500 grams

Figure 22 ..... Birthweight by Duration of Pregnancy in Completed Weeks

Figure 23 ..... Duration of Pregnancy by Birthweight Class

Figure 24 ..... Birthweight by Parity

Figure 25 ..... Birthweight by Sex

Figure 26 ..... Birthweight Sex Ratio by Total Birthweight

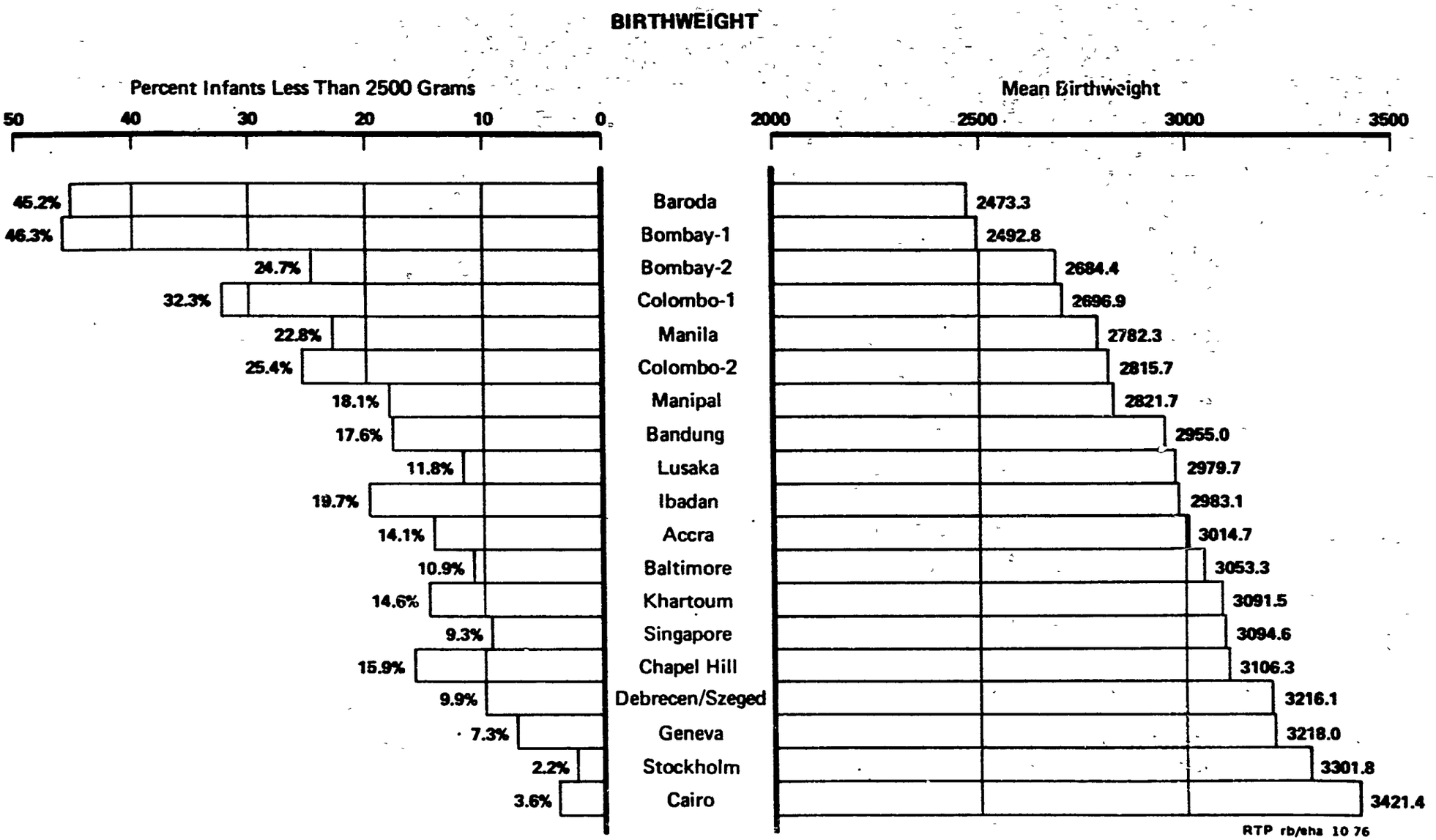

Figure 21. Ranking in Ascending Order of the Samples According to **Mean** BIRTHWEIGHT **in Grams** (Right). Corresponding **Percent Infants Weighing Less Than 2500 Grams** at Delivery (Left).

The Birthweights order themselves into a REGIONAL CONTINUUM with the Indian subcontinent showing the lowest birthweights, Africa higher birthweights and USA and Europe the highest birthweights. A few notable exceptions merit discussion. Overall, there is a strong inverse association across the three mentioned geographic regions between mean birthweight and percent infants with less than 2500 grams weight. This "solid parallelogram" across the three world regions is an indubitable proof of conscientious recording of this variable during the Maternity Record Pretest.

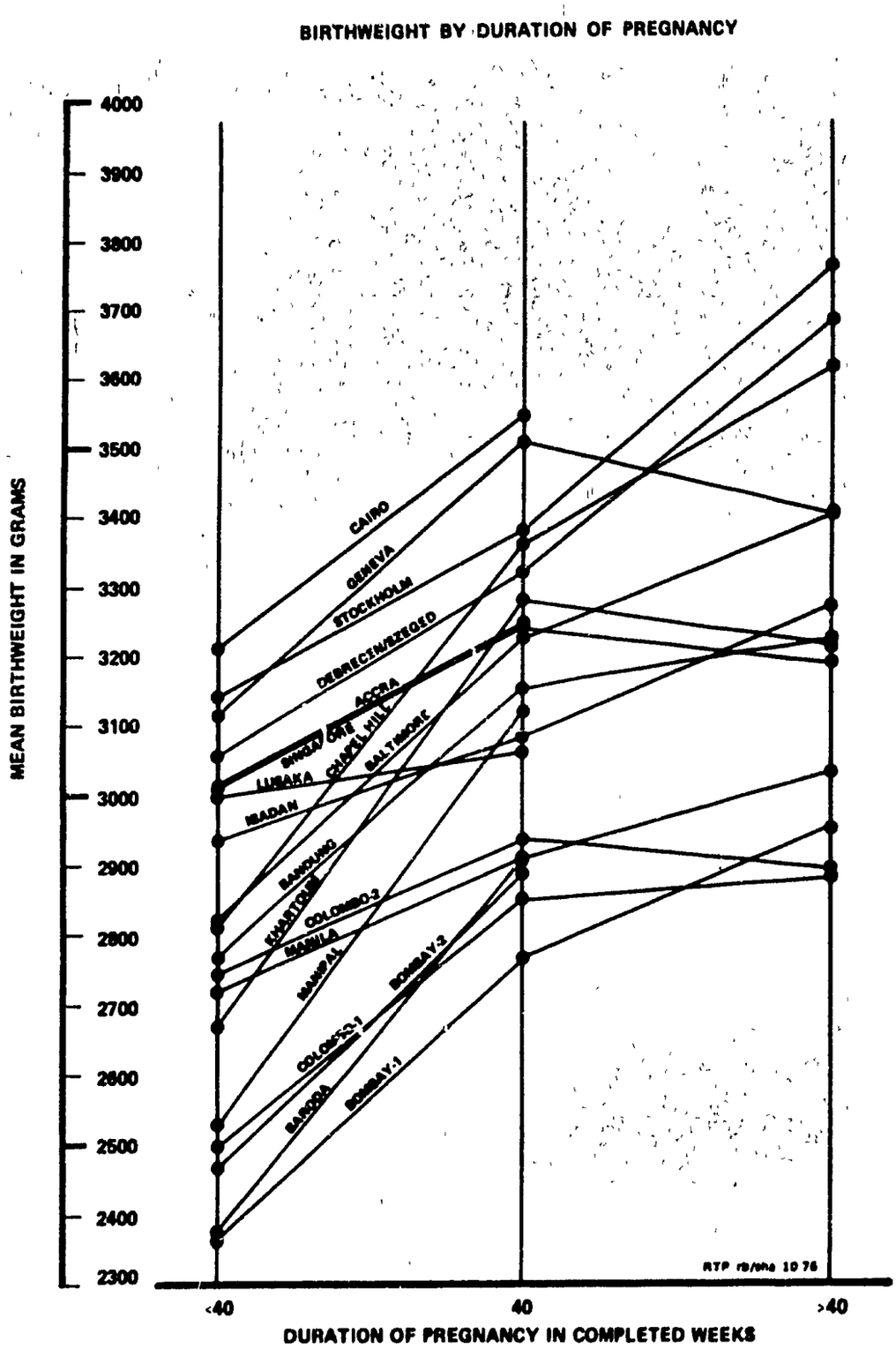

Figure 22. Range of Birthweights Within Categories of Pregnancy Duration Across the Institutions. *Independent of place, and hence birthweight level, duration of pregnancy governs birthweight (Duration of Pregnancy Effect on Birthweight). This effect is stronger at below 40 (Left) than above 40 weeks (Right).*

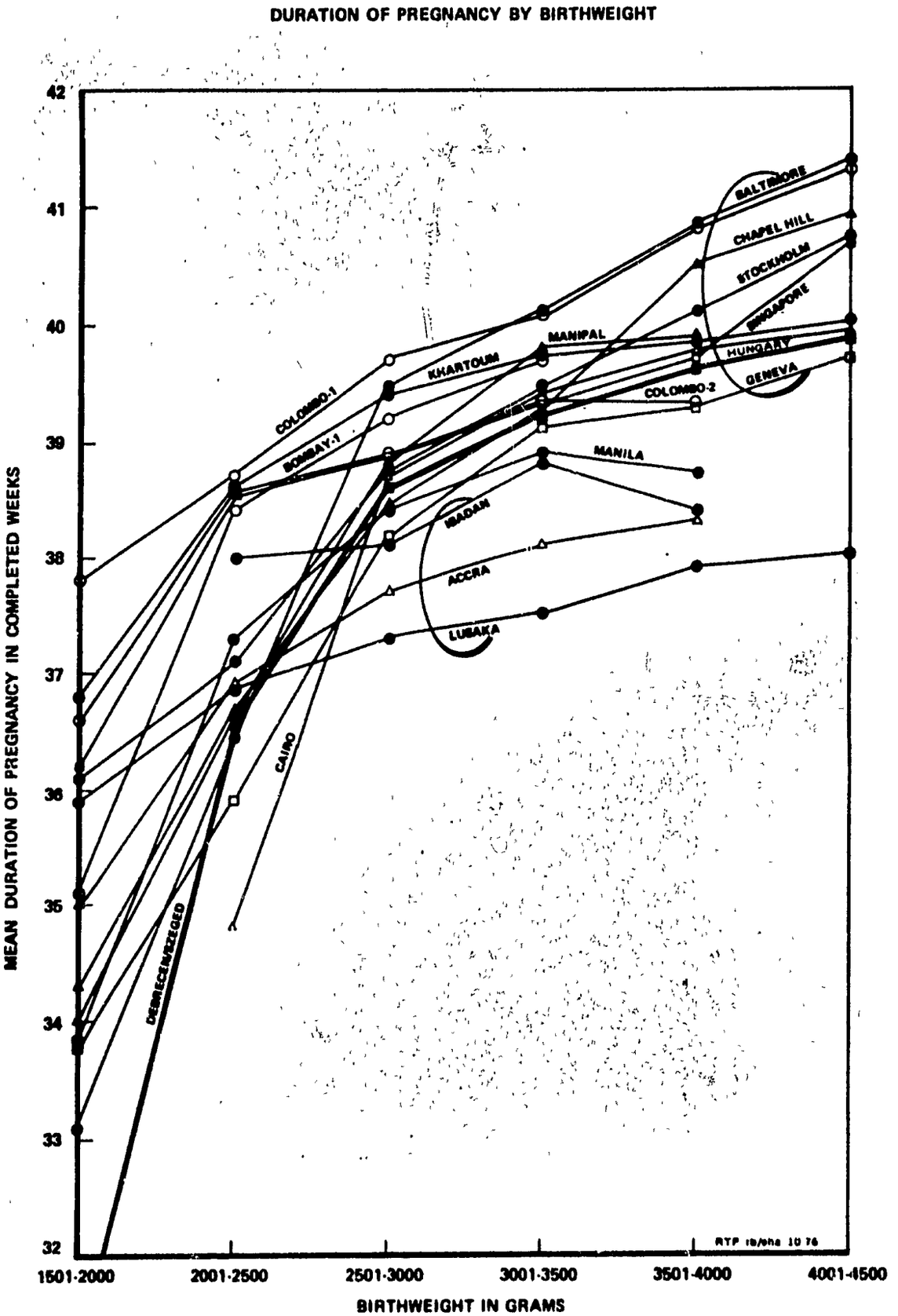

Figure 23. Range of Durations of Pregnancy Within Categories of Attained Birthweight Across the Institutions. *In virtually all samples Duration of Pregnancy is in positive association with Birthweight (Duration of Pregnancy* **Effect** *on Birthweight). Most time curves show quite regular increase across the birthweight categories. This reflects accurate recording of both variables. Note* **High Weight/High Pregnancy Duration** *cluster for Europe/USA studies*

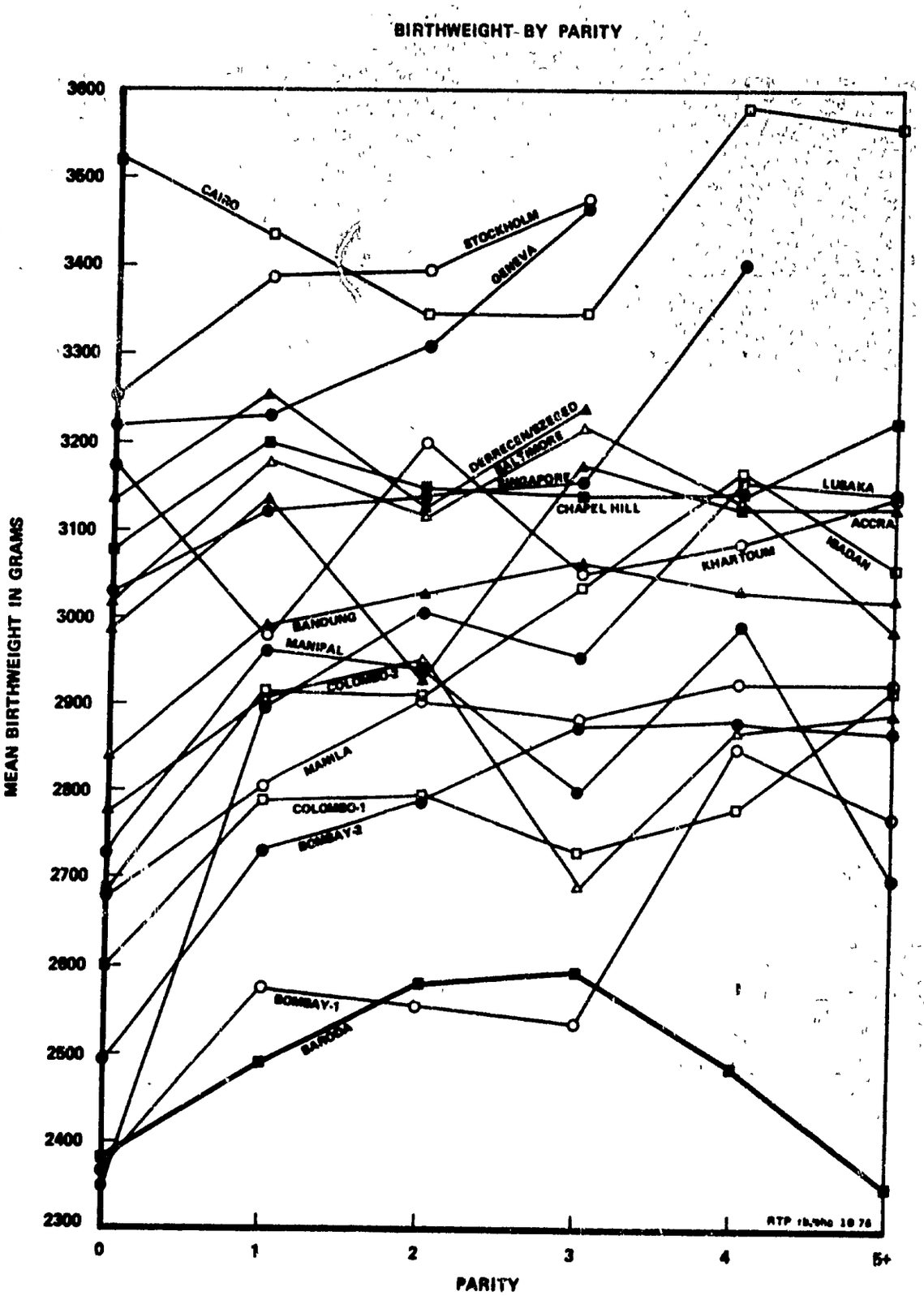

Figure 24. Birthweight Patterns According to Number of Previous Live Births.

The small number of women in various parity classes leads to considerable fluctuation in mean birthweights across parity. Nevertheless, except for two data sets, all studies show a marked increase in the mean birthweight for the Second Delivery (Parity 1), followed by a stabilization of the birthweight for the Third Delivery (Parity 2), again except for two data sets. This figure then shows the limits to analysis due to small numbers. However, as samples increase the fluctuations across parity may decrease and basic patterns may emerge. For instance, the Baroda curve merits reconfirmation with a greater sample as it suggests the operation of a factor leading to a further decrease in already marginal birthweight at higher parity.

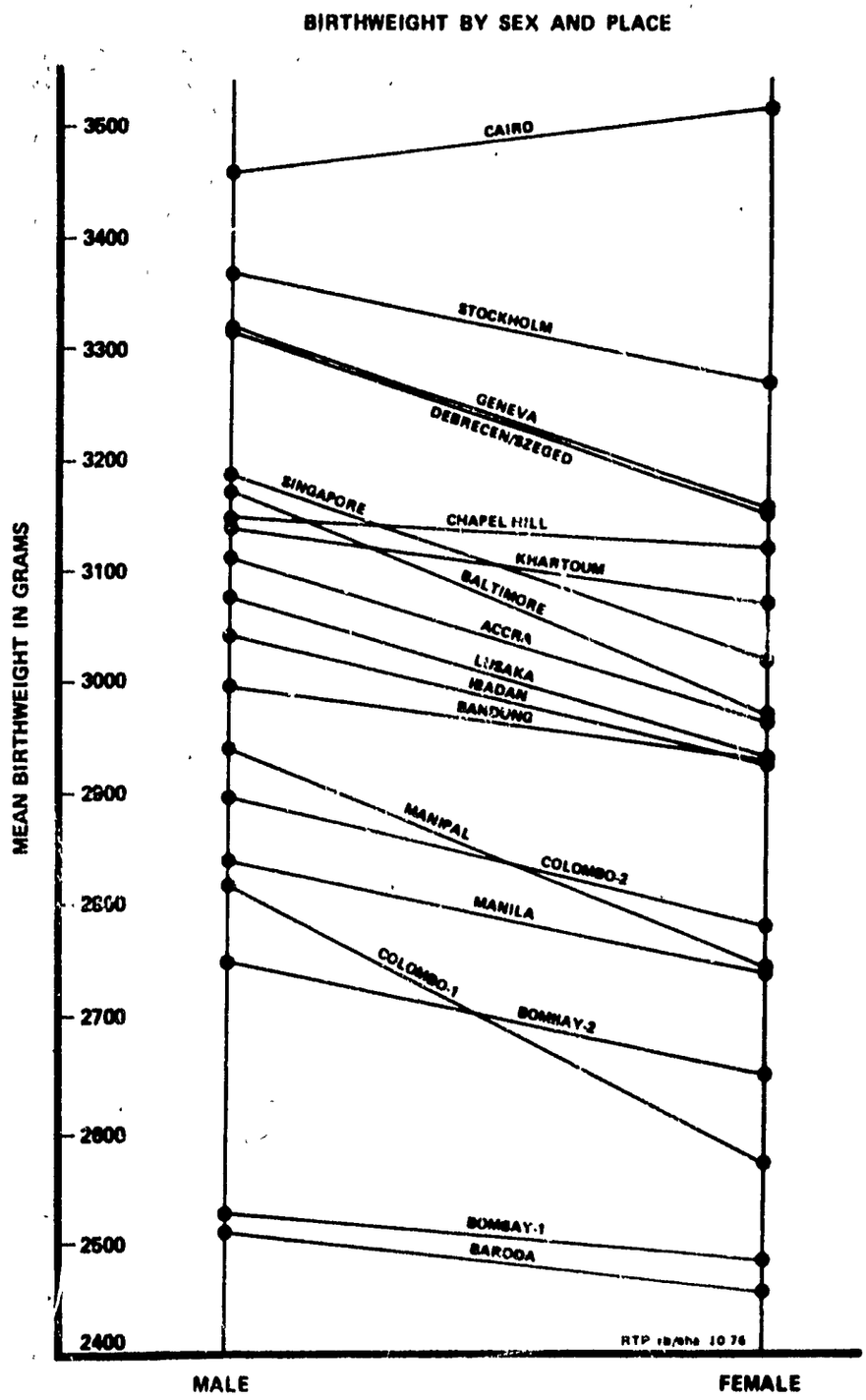

Figure 25. Ranking in Ascending Order of the Sample's Mean Birthweight by Sex (Left: Male; Right: Female).

Independent of total birthweight, the mean birthweight for boys was found to be greater than for girls. Independent of sex, the studies in the Indian Subcontinent showed the smallest birthweights and those of Europe and USA the greatest.

BIRTHWEIGHT SEX RATIO IN RELATION TO TOTAL MEAN BIRTHWEIGHT

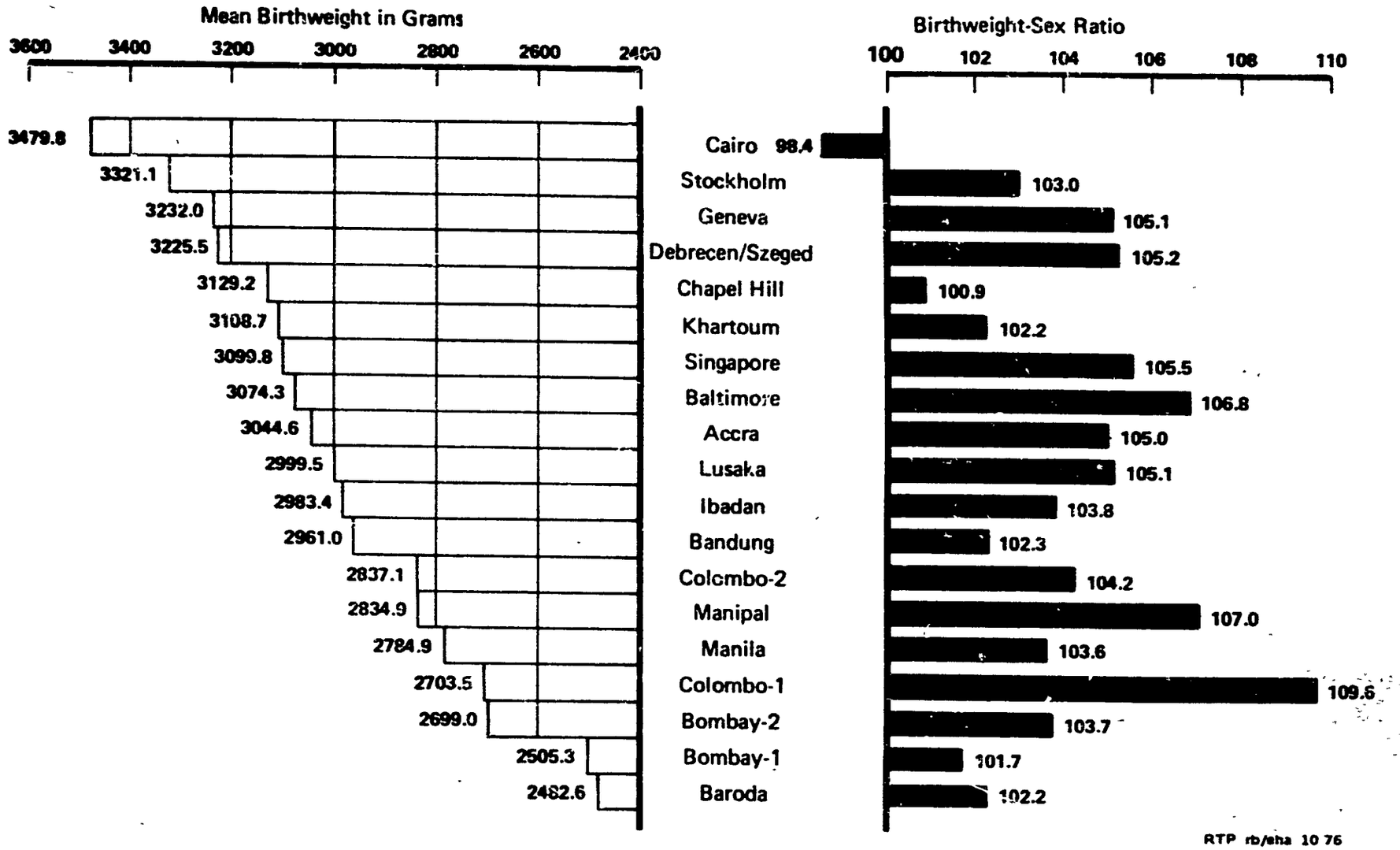

Figure 26. Ranking in Descending Order of the Samples According to MEAN BIRTHWEIGHT in Grams (Left). Corresponding Birthweight-Sex Ratio (X Grams Male Weight per 100 Grams Female Weight at Delivery) (Right).

Quite independent *of the average total birthweight, the birthweight sex ratio shows the* **boys** *as being heavier than the girls in all but one study.*

DATA PANELS

Panel 21 ..... Birthweight by Duration of Pregnancy, Single Deliveries Only: Three Classes

Panel 22 ..... Birthweight by Duration of Pregnancy, Single Deliveries Only: Four Classes

Panel 23 ..... Duration of Pregnancy by Birthweight, Single Deliveries Only: Six Classes

Panel 24 ..... Birthweight by Parity and Sex, Single Deliveries Only: Six Classes

MATERNITY PROFILE (Pretest, Summer 1976)
IFRP-FIGO

PANEL 21:
BIRTHWEIGHT BY DURATION OF PREGNANCY
Single Deliveries Only——————Three Classes

Table 25 *(Col. 400-417)*

				SINGLE DELIVERIES ONLY												SINGLE & MULTIPLE BIRTHS					
				Duration of Pregnancy in Completed Weeks												All Durations					
				< 40				40				> 40				Multiple Births		Single & Multiple Births			
	PLACE	Number of Women	Number of Women	Women #	Women %	Mean* Birth-weight	% < 2500	Women #	Women %	Mean Birth-weight	% < 2500	Women #	Women %	Mean Birth-weight	% < 2500	Women #	Women %	Mean Birth-weight	Standard Devia-tion	% < 2500	
1	CHAPEL HILL	270	265	136	51.3	2805.2	27.2	71	26.8	3356.9	2.8	58	21.9	3610.0	1.7	5	1.85	3106.3	(716.1)	15.9	1
2	BALTIMORE	294	289	139	48.0	2819.1	18.7	75	26.0	3222.1	1.3	75	26.0	3399.5	1.3	5	1.70	3053.3	(621.0)	10.9	2
3	STOCKHOLM	319	315	151	47.9	3139.8	2.0	115	36.5	3373.7	0.9	49	15.6	3756.6	0.0	4	1.25	3301.8	(471.4)	2.2	3
4	GENEVA	357	353	234	66.3	3111.5	9.4	78	22.1	3506.0	0.0	41	11.6	3398.5	0.0	4	1.12	3218.0	(567.1)	7.3	4
5	DEBRECEN SZEGED	314	311	168	54.0	3054.5	14.9	100	32.2	3318.5	3.0	43	13.8	3677.4	0.0	3	0.96	3216.1	(718.3)	9.9	5
6	CAIRO	302	284	58	20.4	3209.5	3.4	225	79.2	3547.1	0.9	1	0.4	4000.0	0.0	18	5.96	3421.4	(581.5)	3.6	6
7	ASSIUT	295		not available																	7
8	KHARTOUM	460	441	120	27.2	2669.2	33.3	305	69.2	3276.4	4.6	16	3.6	3208.3	12.5	19	4.13	3091.5	(710.0)	14.6	8
9	ACCRA	290	283	238	84.1	3007.4	14.3	45	15.9	3241.3	4.4	0	-	-	-	7	2.41	3014.7	(522.3)	14.1	9
10	IBADAN	269	259	175	67.7	2931.4	20.0	78	30.1	3078.7	15.4	6	2.3	3261.8	0.0	10	3.72	2983.1	(596.6)	19.7	10
11	LUSAKA	287	278	272	97.8	2998.2	11.0	6	2.2	3058.5	16.7	0	-	-	-	9	3.14	2979.7	(520.7)	11.8	11
12	BARODA	310	306	244	79.7	2375.9	52.5	62	20.3	2902.4	12.9	0	-	-	-	4	1.29	2473.3	(536.4)	45.2	12
13	BOMBAY-1	300	294	199	67.7	2366.2	57.3	77	26.2	2760.9	22.1	18	6.1	2949.0	11.1	6	2.00	2492.8	(511.9)	46.3	13
14	BOMBAY-2	299	295	136	46.1	2466.7	42.6	157	53.2	2889.7	18.3	2	0.7	3525.0	0.0	4	1.34	2684.4	(520.1)	24.7	14
15	MANIPAL	298	292	139	47.6	2528.8	33.8	153	52.4	3113.0	2.0	0	-	-	-	6	2.01	2821.7	(524.3)	18.1	15
16	COLOMBO-1	294	290	124	42.8	2498.3	49.2	107	36.9	2847.1	15.0	59	20.3	2874.3	25.4	4	1.36	2696.9	(491.3)	32.3	16
17	COLOMBO-2	307	300	149	49.7	2744.8	30.2	129	43.0	2935.4	17.1	22	7.3	2885.1	18.2	7	2.28	2815.7	(483.7)	25.4	17
18	SINGAPORE	399	396	217	54.8	3005.2	11.5	111	28.0	3234.3	3.6	68	17.2	3182.3	7.4	3	0.75	3094.6	(456.7)	9.3	18
19	BANDUNG	318	312	158	50.7	2766.9	31.0	128	41.0	3148.5	3.1	26	8.3	3217.3	3.8	6	1.89	2955.0	(520.1)	17.6	19
20	MANILA	320	319	222	69.6	2718.2	28.4	76	23.8	2910.7	7.9	21	6.6	3034.4	14.3	1	0.31	2782.3	(461.5)	22.8	20
	*in grams	*Column*	*400*	*401*	*402*	*403*	*404*	*405*	*406*	*407*	*408*	*409*	*410*	*411*	*412*	*413*	*414*	*415*	*416*	*417*	
						Figure 22				Figure 22				Figure 22				Figure 21		Figure 21	

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MATERNITY PROFILE (Pretest, Summer 1976)
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PANEL 22:
BIRTHWEIGHT BY DURATION OF PREGNANCY
Single Deliveries Only——————Four Classes

Tables 19.3, 24.1, 27 (Col. 418-433)

			DURATION OF PREGNANCY IN COMPLETED WEEKS																			
			31-34 Weeks			35-39 Weeks			40 Weeks			41-42 Weeks			ALL DURATIONS					
	PLACE	Number of Women	Women #	Women %	Mean Birth-weight*	Women #	Women %	Mean Birth-weight	Women #	Women %	Mean Birth-weight	Women #	Women %	Mean Birth-weight	Women #	Women %	Mean Birth-weight	Standard Deviation	
1	CHAPEL HILL	272	19	7.1	2018.8	112	41.9	3014.4	70	26.2	3356.9	49	18.4	3607.1	267	100.0	3129.2	(692.2)	1
2	BALTIMORE	294	8	2.8	1310.0	124	42.9	2980.2	75	26.0	3222.1	57	19.7	3361.5	289	100.0	3074.3	(621.0)	2
3	STOCKHOLM	319	1	0.3	1790.0	147	46.7	3162.5	115	36.5	3373.7	48	15.2	3752.9	315	100.0	3321.1	(432.0)	3
4	GENEVA	357	5	1.4	2252.0	221	62.6	3175.0	78	22.1	3506.0	40	11.3	3388.0	353	100.0	3232.0	(549.6)	4
5	DEBRECEN / SZEGED	314	9	2.9	2134.4	152	48.9	3186.1	99	31.8	3318.5	42	13.5	3676.4	311	100.0	3225.5	(715.0)	5
6	CAIRO	303	1	0.4	2933.3	47	16.5	3336.5	213	75.0	3547.1	0	-	-	284	100.0	3479.8	(516.2)	6
7	ASSIUT	295	not available																7
8	KHARTOUM	469	3	0.7	1500.0	108	24.1	2813.3	296	65.9	3276.4	15	3.3	3108.8	449	100.0	3108.7	(643.4)	8
9	ACCRA	293	5	1.8	2570.5	220	77.7	3047.9	44	15.5	3241.3	0	-	-	283	100.0	3044.6	(476.5)	9
10	IBADAN	272	6	2.3	2195.8	169	65.0	2968.0	78	30.0	3078.7	5	1.9	3124.2	260	100.0	2983.4	(545.0)	10
11	LUSAKA	295	26	9.1	2649.6	246	86.0	3051.2	6	2.1	3058.5	0	-	-	286	100.0	2999.5	(512.2)	11
12	BARODA	310	39	12.7	2011.7	175	57.2	2562.1	58	19.0	2902.4	0	-	-	306	100.0	2482.6	(533.4)	12
13	BOMBAY-1	300	8	2.7	1708.3	171	58.2	2479.2	75	25.5	2760.9	16	5.4	2949.4	294	100.0	2505.3	(508.5)	13
14	BOMBAY-2	299	17	5.8	2217.5	111	37.6	2539.1	156	52.9	2889.7	0	-	-	295	100.0	2699.0	(501.3)	14
15	MANIPAL	299	21	7.2	2171.7	108	36.9	2689.2	149	50.9	3113.0	0	-	-	293	100.0	2834.9	(516.7)	15
16	COLOMBO-1	294	6	2.1	1702.3	114	39.3	2552.7	106	36.6	2847.1	51	17.6	2890.2	290	100.0	2703.5	(487.1)	16
17	COLOMBO-2	309	9	3.0	2293.1	135	44.7	2813.2	129	42.7	2935.4	21	7.0	2903.7	302	100.0	2837.1	(462.1)	17
18	SINGAPORE	399	7	1.8	2545.0	205	51.8	3031.4	111	28.0	3234.3	58	14.6	3183.1	396	100.0	3099.8	(454.3)	18
19	BANDUNG	318	15	4.8	1944.5	122	39.1	2908.5	119	38.1	3148.5	24	7.7	3195.0	312	100.0	2961.0	(522.9)	19
20	MANILA	320	22	6.9	2441.5	192	60.2	2789.2	76	23.8	2910.7	18	5.6	2960.4	319	100.0	2784.9	(459.9)	20
		Column	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	

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*in grams

MATERNITY PROFILE (Pretest, Summer 1976)
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PANEL 23:
DURATION OF PREGNANCY BY BIRTHWEIGHT
Single Deliveries Only——————————Six Classes

Tables 19.3, 28 (Col. 434-456)

	PLACE	Number of Women	BIRTHWEIGHT IN GRAMS 1501-2000 Women #	%	Mean GA Weeks	2001-2500 Women #	%	Mean GA Weeks	2501-3000 Women #	%	Mean GA Weeks	3001-3500 Women #	%	Mean GA Weeks	3501-4000 Women #	%	Mean GA Weeks	4001-4500 Women #	%	Mean GA Weeks	ALL BIRTH WEIGHTS Women #	%	Mean GA Weeks	♀ with Multiple Births #	%	
1	CHAPEL HILL	272	8	3.0	34.3	24	9.0	36.4	56	21.0	38.4	94	35.2	39.3	53	19.9	40.5	18	6.7	40.9	267	100.0	38.7	5	1.84	1
2	BALTIMORE	294	8	2.8	33.1	13	4.5	36.2	88	30.4	39.0	109	37.7	39.6	54	18.7	40.8	8	2.8	41.4	289	100.0	39.1	5	1.70	2
3	STOCKHOLM	319	1	0.3	32.0	2	0.6	38.5	57	18.1	38.7	158	50.2	39.4	76	24.1	40.1	18	5.7	40.7	315	100.0	39.5	4	1.25	3
4	GENEVA	357	5	1.4	33.8	16	4.5	35.9	77	21.8	38.1	152	43.1	39.1	72	20.4	39.3	24	6.8	39.7	353	100.0	38.6	4	1.12	4
5	DEBRECEN / SZEGED	314	6	1.9	31.2	18	5.8	36.4	66	21.2	38.6	122	39.2	39.3	75	24.1	39.6	14	4.5	39.9	311	100.0	38.8	3	0.96	5
6	CAIRO	303	2	0.7	35.0	5	1.8	34.8	53	18.7	38.7	139	48.9	39.4	61	21.5	39.8	15	5.3	39.9	284	100.0	39.3	19	6.27	6
7	ASSIUT	295	not available																							7
8	KHARTOUM	469	20	4.5	36.8	47	10.5	38.6	84	18.7	39.4	183	40.8	39.7	88	19.6	39.8	3	0.7	40.0	449	100.0	39.2	20	4.26	8
9	ACCRA	293	4	1.4	35.0	29	10.2	36.9	79	27.9	37.7	128	45.2	38.1	38	13.4	38.3	1	0.4	40.0	283	100.0	37.7	10	3.41	9
10	IBADAN	272	2	0.8	34.0	43	16.5	38.0	76	29.2	38.1	104	40.0	38.8	31	11.9	38.4	0	-	-	260	100.0	38.4	12	4.41	10
11	LUSAKA	295	9	3.1	35.9	24	8.4	36.9	100	35.0	37.3	110	38.5	37.5	27	9.4	37.9	3	1.0	38.0	286	100.0	37.2	9	3.05	11
12	BARODA	310	33	10.8	32.8	110	35.9	36.6	112	36.6	37.8	34	11.1	38.9	0	-	-	0	-	-	306	100.0	36.6	4	1.29	12
13	BOMBAY-1	300	31	10.5	35.1	107	36.4	38.4	101	34.4	39.2	37	12.6	39.7	5	1.7	39.6	0	-	-	294	100.0	38.2	6	2.00	13
14	BOMBAY-2	299	22	7.5	36.1	78	26.4	37.1	135	45.8	38.7	41	13.9	39.0	9	3.1	39.6	1	0.3	40.0	295	100.0	38.0	4	1.34	14
15	MANIPAL	299	6	2.0	34.0	51	17.4	36.6	129	44.0	38.8	80	27.3	39.8	17	5.8	39.9	1	0.3	40.0	293	100.0	38.4	6	2.01	15
16	COLOMBO-1	294	16	5.5	37.8	71	24.5	38.7	135	46.6	39.7	51	17.6	40.1	9	3.1	40.8	3	1.0	41.3	290	100.0	39.4	4	1.36	16
17	COLOMBO-2	309	5	1.7	36.6	59	19.5	38.6	116	38.4	38.9	95	31.5	39.3	17	5.6	39.2	1	0.3	39.0	302	100.0	38.8	7	2.32	17
18	SINGAPORE	399	5	1.3	36.2	29	7.3	38.3	126	31.8	38.9	164	41.4	39.3	63	15.9	39.7	7	1.8	40.7	396	100.0	39.1	3	0.75	18
19	BANDUNG	318	9	2.9	33.6	44	14.1	36.5	101	32.4	39.1	119	38.1	39.5	31	9.9	39.9	4	1.3	39.5	312	100.0	38.7	6	1.89	19
20	MANILA	320	10	3.1	33.8	55	17.2	37.3	151	47.3	38.4	84	26.3	38.9	11	3.4	38.7	1	0.3	43.0	319	100.0	38.1	1	0.31	20
	Column		434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	

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Figure 23.

MATERNITY PROFILE (Pretest, Summer 1976)
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PANEL 24:
BIRTHWEIGHT BY PARITY AND SEX
Single Deliveries Only ..... Six Classes

Tables 2.1, 26, 27 *(Col. 457-472)*

	PLACE	Number of Women	PARITY 0 # ♀	PARITY 0 Mean* Birth-weight	PARITY 1 # ♀	PARITY 1 Mean Birth-weight	PARITY 2 # ♀	PARITY 2 Mean Birth-weight	PARITY 3 # ♀	PARITY 3 Mean Birth-weight	PARITY 4 # ♀	PARITY 4 Mean Birth-weight	PARITY 5+ # ♀	PARITY 5+ Mean Birth-weight	SEX Mean Birthweight Total	SEX Mean Birthweight Male	SEX Mean Birthweight Female	BIRTH-WEIGHT SEX RATIO	
1	CHAPEL HILL	272	128	3074.7	79	3200.0	39	3143.1	17	3137.8	1	3133.0	8	3223.8	3129.2	3142.4	> 3115.7	100.9	1
2	BALTIMORE	294	166	3013.8	70	3173.6	31	3112.0	16	3215.6	3	3126.7	8	2982.1	3074.3	3170.3	> 2967.8	106.8	2
3	STOCKHOLM	319	173	3251.0	93	3386.0	42	3395.4	7	3473.3	4	3887.5	0	-	3321.1	3366.6	> 3269.9	103.0	3
4	GENEVA	357	190	3216.3	134	3227.3	23	3306.1	6	3466.7	2	3425.0	1	3350.0	3232.0	3314.8	> 3153.3	105.1	4
5	DEBRECEN / SZEGED	314	147	3161.8	116	3255.2	30	3128.3	8	3237.5	2	3205.0	2	3300.0	3225.5	3312.0	> 3149.0	105.2	5
6	CAIRO	303	116	3518.4	35	3435.3	37	3345.7	34	3346.9	20	3578.9	61	3556.9	3479.8	3456.3	< 3512.7	98.4	6
7	ASSIUT	295	not available																7
8	KHARTOUM	469	120	3171.9	81	2976.1	58	3198.1	64	3050.9	42	3083.2	104	3136.8	3108.7	3136.3	> 3069.4	102.2	8
9	ACCRA	293	112	2983.1	24	3163.5	49	2924.3	28	3171.0	18	3121.7	62	3125.7	3044.6	3109.1	> 2960.7	105.0	9
10	IBADAN	272	16	2684.5	62	2913.5	46	2903.0	51	3031.9	41	3161.3	56	3053.7	2983.4	3037.0	> 2925.0	103.8	10
11	LUSAKA	295	5	2336.0	80	2887.7	56	3005.3	48	2951.9	40	3155.7	66	3135.1	2999.5	3072.6	> 2922.2	105.1	11
12	BARODA	310	95	2381.8	69	2490.9	81	2579.1	29	2593.1	19	2484.2	17	2350.0	2482.6	2509.4	> 2454.4	102.2	12
13	BOMBAY-1	300	93	2349.8	102	2574.7	52	2549.4	40	2535.9	8	2848.6	5	2770.0	2505.3	2524.9	> 2482.6	101.7	13
14	BOMBAY-2	299	92	2489.5	90	2730.9	48	2790.4	28	2873.2	24	2880.9	17	2867.6	2699.0	2747.7	> 2648.7	103.7	14
15	MANIPAL	299	96	2727.2	67	2958.6	45	2938.2	28	2796.2	25	2992.5	38	2700.0	2834.9	2934.6	> 2743.1	107.0	15
16	COLOMBO-1	294	131	2600.4	65	2787.3	43	2791.4	30	2729.2	14	2779.1	11	2923.8	2703.5	2814.8	> 2568.5	109.6	16
17	COLOMBO-2	309	116	2775.3	77	2894.3	58	2942.6	23	2687.0	13	2869.8	22	2886.7	2837.1	2893.3	> 2777.7	104.2	17
18	SINGAPORE	399	170	3027.0	120	3119.4	66	3140.4	22	3153.4	15	3405.0	6	3360.0	3099.8	3181.6	> 3015.5	105.5	18
19	BANDUNG	318	101	2837.5	40	2983.8	46	3023.5	38	3051.6	16	3028.7	77	3017.7	2961.0	2992.6	> 2926.5	102.3	19
20	MANILA	320	139	2678.9	62	2802.6	38	2901.5	33	2858.0	17	2925.4	31	2923.3	2784.9	2838.7	> 2739.4	103.6	20

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	Column	457 458	459 460	461 462	463 464	465 466	467 468	469	470	471	472	
		Figure 24	Figure 24	Figure 24	Figure 24	Figure 24	Figure 24	Figure 26	Figure 25		Figure 26	

*in grams

ACKNOWLEDGEMENT AND OUTLOOK

The two reviews have confirmed that Contributors to a world-wide network of clinical research in maternity care are able to elicit quite accurate responses to internationally posed questions on past recollection and present occurrence. Credit for the resulting international comparability of data gathered by routine surveillance goes first to the Contributors who participated in the Pretest of the Maternity Record at short notice. The fact that the present review on birthweights was manageable during the three days following the VIII World Congress of FIGO in Mexico City is obviously due to optimal teamwork at IFRP headquarters in Research Triangle Park. To both the technical competence of the Data Processing Division (Peter Harkins, Head) and the relentless commitment of Ellen Kendall and Edgar Adcock goes credit. This successful early "dry run" augurs favorably more extensive treatment of massive data in the years to come.

Because of, rather than in spite of, the very small samples we have examined, the feasibility of universal maternity care monitoring could be established with certainty when consistent reporting and recording of both recall data and clinical observation was demonstrated. One cannot project the immense benefit that this new approach will have in improving maternal care at the international level. Also, the potential of routine research into the change of reproductive behavior and the shift in contraceptive method use is vast. Perhaps most important, the surveillance approach necessarily has a built-in educational dimension that will lead to improved service to mothers, antepartum, intrapartum, and postpartum.

The maternity care baseline has been born. We wish it rapid growth in quality and quantity. Obviously, the Contributors around the world will determine its fate.

IFRP/RTP, 24 October 1976

Roger P. Bernard, MD, MSPM
Director of Field Epidemiology, IFRP

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PRESENT DELIVERY &
RESEARCH STRATEGY
Columns: 500-980
Panels: 31-48
Figures: 31-90
January 1977

MATERNITY CARE MONITORING LEADING TO REPRODUCTIVE EPIDEMIOLOGY & IMPROVED PREGNANCY OUTCOME

Maternity Record Pretest, Summer 1976
IFRP-FIGO

Prepared for the Contributors to the Maternity Record Pretest

from

International Fertility Research Program
Research Triangle Park, North Carolina 27709 USA

and

International Federation of Gynecology & Obstetrics
Maternité, 1211, Genève, Suisse

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MATERNITY RECORD

The IFRP Maternity Record is designed to collect information for delivery. Data are collected on the personal characteristics, the fertility history and the antenatal care of the patient, the management and the outcome of the delivery, the postpartum status of the mother and of the infant and the patient's postpartum fertility control intentions.

In addition, up to five questions of the contributor's choice may be added in the Special Studies box. Both the questions and the codes are at the contributor's discretion but the IFRP may make recommendations for comparability with other centers that use the form. Three additional questions (race and/or ethnicity and the two occupational questions) also have a flexible set of responses which will be determined at the discretion of the contributor.

The forms are designed to be processed without queries. The absence of queries reduces the amount of paperwork (and therefore the cost to the contributor) involved in the participation of this study in comparison with other IFRP studies. However, the quality of the data is therefore more dependent on accurate responses than is true with other IFRP forms. Forms will not be accepted if the responses to certain key questions are either unknown or inconsistent. There will be a pretest period to enable each contributor to minimize recording problems.

Standard Analysis tables will be provided upon request which will assist the contributor in writing both administrative and research reports.

Obstetricians who feel that the Maternity Record could bring a new dimension to Pregnancy Management should feel free to contact either IFRP or FIGO.

INTRODUCTION

In the summer of 1976, the International Fertility Research Program and the International Federation of Gynecology and Obstetrics cosponsored a pretest of the Maternity Record. Baseline analyses were done on data from the twenty centers that had submitted approximately 300 forms each. The first of these analyses (MCM-1), containing some data on patient characteristics (recall data), was presented to the Executive Board of FIGO at the VIII World Congress on Gynecology and Obstetrics in October 1976. The consistency of the reproductive profiles across the twenty data sets demonstrated the scientific potential of the Maternity Record for use in monitoring maternity care. A second analysis (MCM-4) of one observation variable, birthweight, further strengthened the validity of this cross-sectional data. Effects of gestational age, parity, and sex on birthweight were apparent across the twenty data sets. In addition to these expected findings, cross-sectional ranking of variables in both MCM-1 and MCM-4 revealed a persistent "development effect" operational among many of the variables studied. As a result, cross-sectional ranking was routinely applied in this analysis: *The Present Delivery (MCM-5)*. The analysis is presented in three sections:

1. Data Collection and Analysis
2. Illustrated Findings and Research Outlook
3. Topical Data Base

In this analysis, the "development effect" was substantiated. More often than not, the twenty institutions aggregated in a loose continuum reminiscent of the general development level of their catchment areas. Thus, the development effect was crystallized for a broad battery of antepartum, intrapartum, and postpartum variables and serves as a basis for the three models derived from this analysis. This systematic statistical approach has also led to a *analysis strategy* which will come to fruition with the finalization of a standard computer output reflecting this analysis strategy.

The findings from this pretest must be viewed with some statistical reservation, since many of the variables being studied are rare events and their reliability may be questionable for small samples. Continuous recording of at least 1,000 consecutive deliveries (level-2) in the same institution where the pretest was conducted will clarify many observations derived from the "300"-frequency (level 1) analysis. However, for Maternity Care Monitoring to serve as a tool for fruitful analytical epidemiology, around 3,000 consecutive cases (level-3) per institution would be most beneficial.

The Pretest has been merely a rehearsal. With this limited but systematic statistical analysis, the stage is now set for the *1977 Maternity Record Test*.

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1 DATA COLLECTION AND ANALYSIS

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1.1 RATIONALE
Data Collection & Analysis

The subsequent pages in this section address themselves to the overall *analysis* approach and should be helpful particularly when examining the illustrated findings (Section II) and the statistical documentation (Section III).

1. As shown on the world map, the twenty data sets have been arranged in the following sequence:

AMERICAS:	Chapel Hill	1	EUROPE:	Stockholm	3	AFRICA:	Cairo	6	S.E.	Baroda	12	E.	Singapore 18
	Baltimore	2		Geneva	4		Assiut	7	ASIA:	Bombay-1	13	ASIA:	Bandung 19
				Debrecen/ Szeged	5		Khartoum	8		Bombay-2	14		Manila 20
							Accra	9		Manipal	15		
							Ibadan	10		Colombo-1	16		
							Lusaka	11		Colombo-2	17		

This *sequence* is consistently used in the topical data panels in Section III. Ranking these twenty data sets by variables leads to the figures in Section II which show range and rank order sequence.

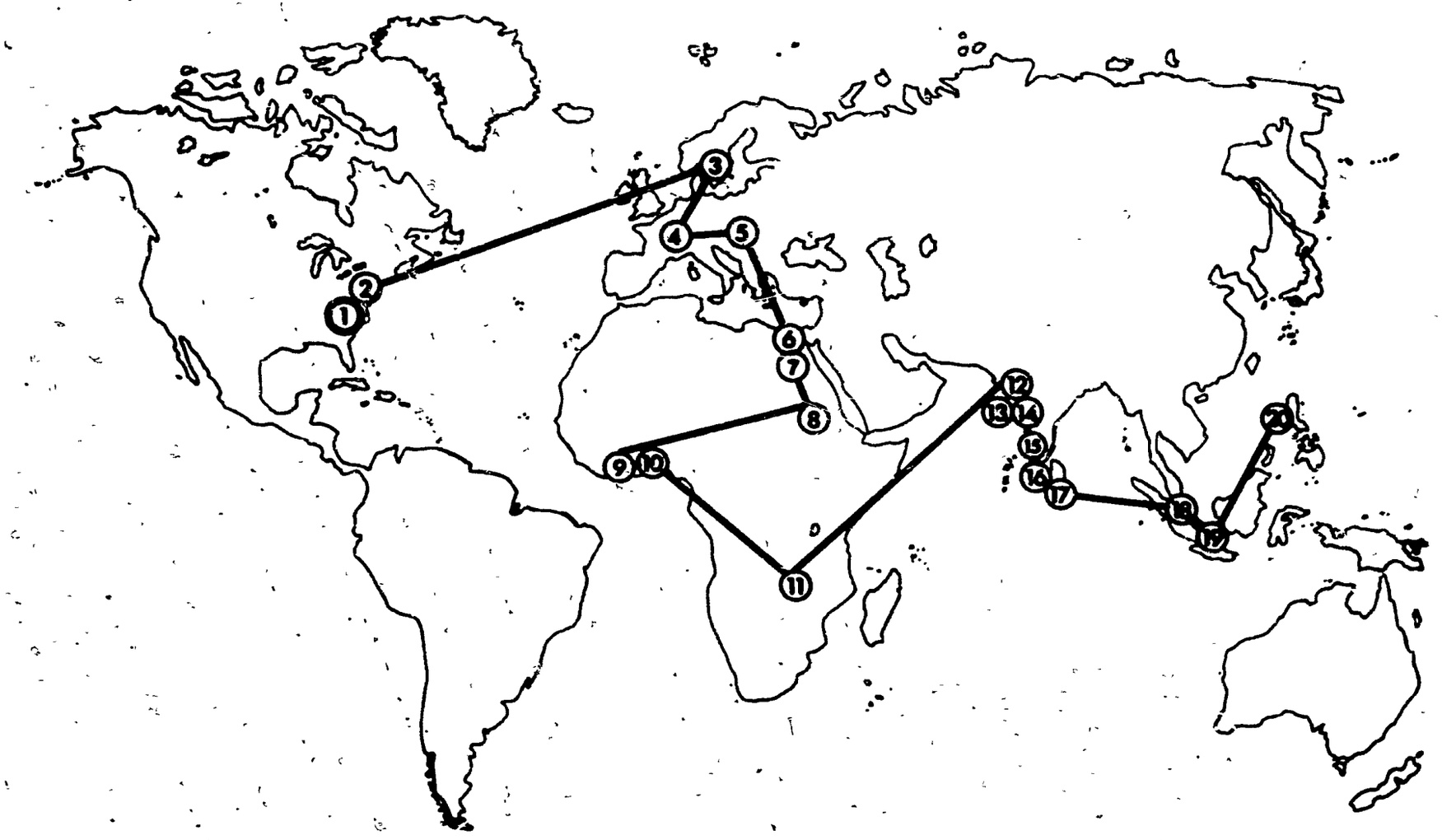
2. This analysis concentrates on information pertaining only to the delivery for which the patient was hospitalised at the time the Maternity Record was completed. The 22 *questions* pertaining to this delivery (nos. 8, 9, 30-41, 43-48, 54, 55) have been framed in the questionnaire (1.4). For ease of reference, the data panels which contain the statistical answers to these questions refer to the question number(s) (see top of data panels in Section III).

3. The *overall plan for analysis of the Pretest data* must meet two requirements: (1) provide feedback of the analytical findings to the Contributors to the Pretest, and equally important, (2) develop the standard computer program to be used in analysing the Maternity Record Test of 1977 now in progress. The present analysis restricts itself to standard computer outputs developed for the 1976 Pretest. However, special runs are projected (MCM-3 & MCM-6) to finalize the new standard computer program.

4. The functional organization of the variables collected on the present delivery necessarily leads to a *analysis strategy*. Actually, the topical data panels in Section III are a continuum of topics treating in successive order variables pertaining to occurrences antepartum, intrapartum, and postpartum. The analysis strategy is open-ended since new linkages between areas or further refinement within a given area can be pursued. Finally, it is the *future research strategy* that emerges from the *analysis strategy*.

5. *Multiple entry access* to the present 20-data-set baseline constitutes a real challenge. To this end the material was organized according to a functional continuum, both in data handling (data collection and processing, analysis and findings, and synthesis of results and feedback) and in content (antepartum, intrapartum, and postpartum occurrences). The tallies across the bottom line of the access panel (see 1.6) give an account of the extent of this analysis and suggest potential directions of inquiry and action.

1.2 INTERNATIONAL MATERNITY RECORD PRETEST, SUMMER 1976
IFRP-FIGO



AMERICAS	EUROPE	AFRICA	MIDDLE SOUTH ASIA	SOUTHEAST ASIA
		6 Cairo	12 Baroda	
		7 Assiut	13 Bombay-1	
	3 Stockholm	8 Khartoum	14 Bombay-2	
	4 Geneva	9 Accra	15 Manipal	
1 Chapel Hill	5 Debrecen	10 Ibadan	16 Colombo-1	19 Bandung
2 Baltimore	Szeged	11 Lusaka	17 Colombo-2	18 Singapore 20 Manila

1.3 IDENTIFICATION OF SELECTED DATA SETS
('300' Frequency Level)

AREA	PLACE	DATA SET	TIME SPAN	DELIVERIES
AMERICAS	Chapel Hill	1	June to Sept. 1976	272
	Baltimore	2	July to Aug. 1976	294
EUROPE	Stockholm	3	June to Aug. 1976	319
	Geneva	4	Jan. to March 1976	357
	Debrecen/Szeged	5	Aug. to Sept. 1976	314
AFRICA	Cairo	6	June 1 to 30 1976	303
	Assiut	7	June to Aug. 1976	295
	Khartoum	8	May to Aug. 1976	469
	Accra	9	Aug. 10 to 27 1975	293
	Ibadan	10	June to Aug. 1976	272
	Lusaka	11	July to Sept. 1976	295
MIDDLE SOUTH ASIA	Baroda	12	June to Sept. 1976	310
	Bombay-1	13	June to July 1976	309
	Bombay-2	14	May to Aug. 1976	299
	Manipal	15	Jan. to June 1976	299
	Colombo-1	16	July to Aug. 1976	294
	Colombo-2	17	July to Aug. 1976	309
SOUTHEAST ASIA	Singapore	18	April to Sept 1976	399
	Bandung	19	June to Aug. 1976	318
	Manila	20	Aug. to Sept 1976	320
International		20	Summer 1976	6,331

1.4 PRETEST QUESTIONNAIRE

INTERNATIONAL FERTILITY RESEARCH PROGRAM

MATERNITY RECORD

Please Circle Appropriate Numbers and Fill In Appropriate Boxes and Blanks

PATIENT IDENTIFICATION

1 Hospital or Clinic No _____ 2 Admission Date _____ (day / month / year)

3 Patient's Name _____ (family / first / maiden) Husband's Name _____

4 Address _____

STUDY IDENTIFICATION

5 Centre Name _____ and Number [ ][ ][ ] 1-3

6 Patient Order Number [ ][ ][ ][ ] 4-8

7 Delivery Date [ ][ ] [ ][ ] [ ][ ] 9-14 (day / month / year)

8. Number of Nights Hospitalized After Delivery [ ][ ] 15-16

9 Total Number of Nights Hospitalized [ ][ ] 17-18

PATIENT CHARACTERISTICS

10 Residence 1) urban 2) rural 3) slum [ ] 19

11 Race/Ethnicity *codes 1) through 7) available* 8) other _____ [ ] 20

12 Religion 0) none 1) Buddhist 2) Catholic 3) Hindu 4) Jewish 5) Muslim 6) Orthodox 7) Protestant 8) other _____ [ ] 21

13 Marital Status 1) never married 2) currently married 3) formerly married 8) other _____ [ ] 22

14 Patient's Age *(years completed)* [ ][ ] 23-24

15 Patient's Education 0) none 1) 1-3 years 2) 4-6 years 3) 7-9 years 4) 10-12 years 5) 13+ years [ ] 25

16 Patient's Occupation *codes 1) through 7) available* 8) other _____ [ ] 26

17 Husband's Education *(use Item 15 codes)* [ ] 27

18 Husband's Occupation *(use Item 16 codes)* [ ] 28

19 Completed Years of Current Marriage (Union) [ ][ ] 29-30

20 Total Live Births [ ][ ] 31-32

21 Children Now Living *(8 or more = 8)* number of males [ ] 33; number of females [ ] 34

22 Number of Infant Deaths *(12 completed months or less)* *(8 or more = 8)* number of males [ ] 35; number of females [ ] 36

23 Number of Early Childhood Deaths *(over 12 completed months through 60 completed months)* *(8 or more = 8)* number of males [ ] 37; number of females [ ] 38

24 Age of Youngest Living Child *(8 or more = 8)* [ ] 39

25 Duration of Breast Feeding of Youngest Living Child *(months)* [ ][ ] 40-41

26 Number of Spontaneous Abortions *(8 or more = 8)* [ ] 42

27 Number of Induced Abortions *(8 or more = 8)* [ ] 43

28 Total Stillbirths *(8 or more = 8)* [ ] 44

29 Contraceptive Method Mainly Used in Three Months Before Conception 0) none 1) IUD 2) orals 3) female sterilization 4) male sterilization 5) condom 6) withdrawal/rhythm 7) foam/diaphragm/jelly 8) other _____ [ ] 45

MEDICAL DATA

30 Number of Antenatal Visits *(8 or more = 8)* [ ] 46

31 Primary Maternal Antenatal Condition 0) none 1) anemia 2) hypertension 3) toxemia 4) hemorrhage 5) hyperemesis 6) disease of genital tract 7) systemic disease 8) other _____ Specify details of above condition _____ [ ] 47

32 Hospitalization Required Before Delivery 0) no 1) yes, for above condition 2) yes, for condition not indicated in Item 31 [ ] 48

33 Type of Presentation During Labour *(Give presentation of first born in the case of multiple births)* 0) vertex (occiput anterior or transverse) 1) vertex (occiput posterior) 2) breech 3) face 4) brow 5) transverse 6) compound 8) other specify _____ [ ] 49

34 Artificial Rupture of Membranes 0) none 1) for induction of labour 2) for acceleration of labour 3) for treatment of complications 8) other, specify _____ [ ] 50

35. Oxytocics Administered *(use Item 34 codes)* [ ] 51

36 Type of Labour and Delivery
Spontaneous Labour. 1) spontaneous delivery 2) forceps/vacuum delivery 3) caesarean section
Induced Labour 4) spontaneous delivery 5) forceps/vacuum delivery 6) caesarean section
No Labour 7) caesarean section
Other Delivery 8) specify _____ [ ] 52

37 Primary Complication of Delivery 0) none 1) premature rupture of membranes 2) prolonged labour 3) obstructed labour 4) abnormal uterine contractions 5) postpartum haemorrhage/retained placenta 6) placenta praevia 7) maternal injuries 8) other _____ Specify etiology _____ [ ] 53

38 Umbilical Cord 0) no abnormalities 1) cord presentation 2) cord prolapse 3) short cord (< 12 inches or 30 cms) 4) long cord (> 30 inches or 76 cms) 5) loops of cord around the neck 6) true knots 7) abnormalities of insertion 8) other _____ [ ] 54

39 Attendant at Delivery 0) none 1) nurse 2) midwife 3) student nurse/midwife 4) paramedic 5) medical student 6) physician 8) other _____ [ ] 55

40 Estimated Duration of Pregnancy *(menstrual age in weeks)* [ ][ ] 56-57

41 Haemoglobin (grams) at Admission for Delivery 1) 5 or less 2) 6-7 3) 8-9 4) 10 5) 11 6) 12 7) 13 8) 14 or more 9) not done [ ] 58

PREGNANCY OUTCOME AND MANAGEMENT [MCM-4]

42 Birthweight *(grams) (multiple births, give combined weight) (9998 and over = 9998)* [ ][ ][ ][ ] 59-62

43 Sex of Infant(s) Born at This Delivery *(write number of each)* male [ ] 63; female [ ] 64

44 Live Birth(s) that Died Before Discharge 0) none *(code number of deaths)* [ ] 65

45 Stillbirth(s) 0) none 1) fresh 2) more than one fresh 3) one, macerated 4) more than one, macerated 5) combination [ ] 66

46 Postpartum Maternal Status 0) normal 1) complication not requiring treatment, specify _____ 2) complication requiring treatment, specify _____ 3) death, specify cause _____ *(Fill out death report)* [ ] 67

47 Maternal Blood Transfusion During Hospitalization 0) none 1) yes, before delivery 2) yes, during delivery 3) yes, after delivery 4) any combination of 1), 2), and 3) [ ] 68

48 Primary Foetal/Neonatal Complication 0) none 1) foetal distress before labour 2) foetal distress during labour 3) neonatal complication 4) congenital malformation 5) 1 and 4 6) 2 and 4 7) 3 and 4 8) other *Specify All Conditions* _____ [ ] 69

SPECIAL STUDIES

49 [ ] 70

50 [ ] 71

51 [ ] 72

52 [ ][ ] 73-74

53 [ ][ ] 75-76

54. Female Sterilization at This Hospitalization 0) none 1) immediately after delivery 2) same day 3) 1-2 days later 4) 3-4 days later 5) 5-6 days later 6) 7-8 days later 7) 9 or more days later 8) before delivery [ ] 77

55. Other Surgery This Hospitalization 0) none 1) immediately after delivery 2) same day 3) 1-2 days later 4) 3-4 days later 5) 5-6 days later 6) 7-8 days later 7) 9 or more days later 8) before delivery *Specify Type of Surgery* _____ [ ] 78

COMPLETE THESE TWO ITEMS AT TIME OF DISCHARGE

56 Number of Additional Children Wanted After This Delivery *(8 or more = 8)* [ ] 79

57 Postpartum Fertility Control Planned or Used 0) none 1) IUD 2) orals 3) female sterilization 4) male sterilization 5) condom 6) withdrawal/rhythm 7) foam/diaphragm/jelly 8) other _____ [ ] 80 [MCM-1]

No. _____

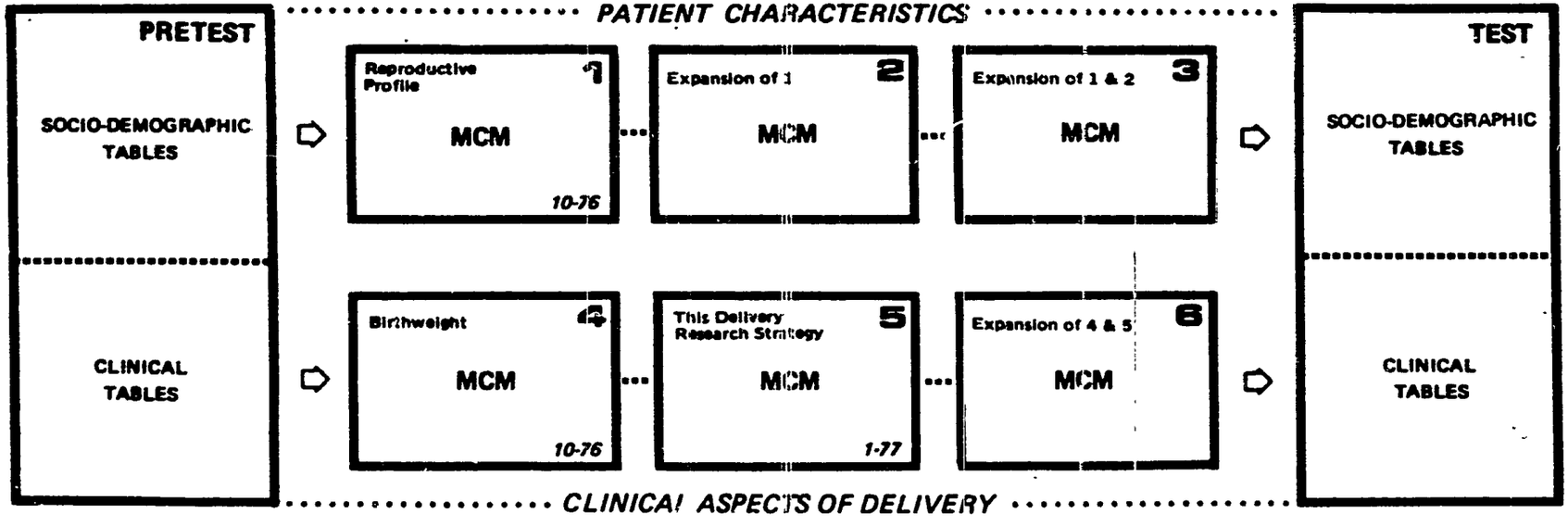
MCM-5 [MCM-1]

MATSAM 4/76

PLEASE AIRMAIL TO: International Fertility Research Program, Research Triangle Park, North Carolina 27709 USA

1.5 DEVELOPMENT OF THE STANDARD COMPUTER PROGRAM for INTERNATIONAL MATERNITY CARE MONITORING

with serialized
FEEDBACK OF THE ANALYSIS OF THE PRETEST - 1976



WRITING OF MCM-PRETEST-1976 COMPUTER PROGRAM

Operational: Sept.,1976

INQUIRY into VALIDITY of PRETEST

BULK OF FINDINGS BY RANKING with PICTORIAL CORRELATIONS

STANDARD COMPUTER OUTPUT

SPECIFIC CORRELATION and OPTIMAL GROUPING STUDIES

SPECIAL RUNS

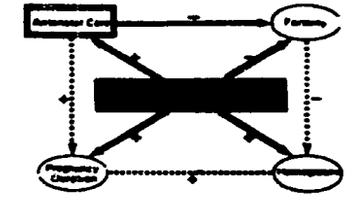
WRITING OF MCM-TEST-1977 COMPUTER PROGRAM

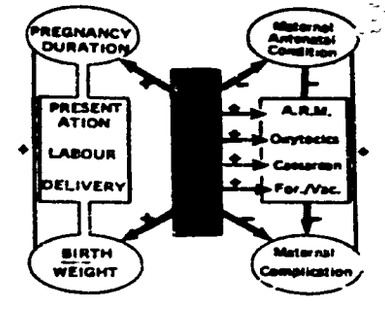
Operational: Jan.,1978

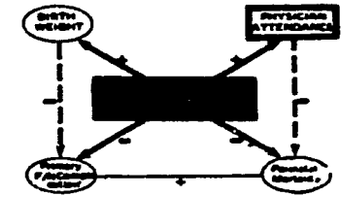
STANDARD COMPUTER OUTPUT

1.6 CONTENTS OF MCM-5
Seven Point Entry to Data

	DATA COLLECTION & PROCESSING		ANALYSIS & FINDINGS			DATA FEEDBACK	
	MATERNITY RECORD 1	COMPUTER OUTPUT 2	3	4 DATA PANEL	5	PRELIMINARY OBSERVATIONS NEEDING CONFIRMATION 6	7
	Question #	Clinical Table	Panel #	Topic	Column #	Figure #	Development Effects
ANTEPARTUM	30[20]*	1.1	31	Antenatal Conditions - I			
				Antenatal Visits by Parity	500-525	31, 33	
	30[20]	1.1	31A	Antenatal Visits by Parity, a Reconsideration	500-519a	32, 34	
	31[20]	1.2	32	Antenatal Conditions - II			
				Primary Maternal Antenatal Condition, by Parity	526-550	35, 36, 37	
	9-8[20]	1.4	33	Antenatal Conditions - III			
				Pre-Delivery Hospitalisation, by Parity	551-574	38	
	32[20]	1.3	34	Antenatal Conditions - IV			
				Pre-Delivery Hospitalisation, by Parity & Reason	575-592	39	
			35	Antenatal Conditions - V			
	40	2.1		Duration of Pregnancy in Completed Weeks	593-613	41, 42	
	40[20]	2.1		Duration of Pregnancy by Parity		43	
	41	2.5		Haemoglobin at Admission		44	
INTRAPARTUM			36	Conditions of Labour			
	33	2.2		Type of Presentation During Labour	614-634	51	
	34	2.3		Artificial Rupture of Membranes		53	
	35	2.4		Oxytocics Administered		54	
			37	Conditions of Delivery - I			
	39	3.1		Attendant at Delivery	635-657	62	
	36	2.6		Type of Labour & Delivery		55, 57, 59	
			38	Conditions of Delivery - II			
	37	3.3		Primary Complication of Delivery		64, 69	
	38	3.4		Umbilical Cord	658-681	67	
	46	3.5		Postpartum Maternal Status		68	
	47	3.6		Blood Transfusion		69	
	36	4	39	Type of Delivery by Type of Labour	682-698	57, 58, 59	
	33[36]	5	40	Type of Presentation by Type of Delivery	699-730	52	
	36[33]	6	41	Type of Delivery by Type of Labour & Presentation	731-766	60, 61	
	37[36]	7	42	Primary Complication of Delivery,			
				By Type of Delivery After Spontaneous Labour	767-796	56	
	39[36]	8	43	Type of Attendant at Delivery,			
				By Type of Delivery After Spontaneous Labour	797-829	63	
	37/39[46]	9,10	44	Primary Complication of & Attendant at Delivery			
				For Normal Postpartum Maternal Status	830-856	65, (68)	
POSTPARTUM			45	Postpartum Status of Mother & Child - I			
	54	15.5		Tubal Ligation		81	
	8	3.7		Hospital Stay	855-886	40, 81	
	43,44,45	23		Single Birth Outcome		85, 86, 87	
	48	19.6		Primary Foetal/Neonatal Complication		82	
	45[33]	24.2	46	Postpartum Status of Mother & Child - II			
				Stillbirth by Presentation	887-916	85, 87	
	48[43-45]	21	47	Postpartum Status of Mother & Child - III			
				Primary Foetal/Neonatal Complication			
				By Status of Infant	917-948	83	
			48	Postpartum Status of Mother & Child - IV			
	48[43-45],	21		Primary Foetal/Neonatal Complication			
	& geo.			By Status of Infant & 'Development', a Reconsideration	949-980	84	
	43-45[48]	21		Status of Infant by Primary Foetal/Neonatal			
	& geo.			Complication & 'Development'		89, 90	
	22 Questions	*28 Cl. Tables*	*19 Panels*	*31 Topics: Leads to Model Thinking on Clinical MANAGEMENT*	*481 Columns*	*46 Figures*	*Leads to Identification of Place-Specific NEEDS*



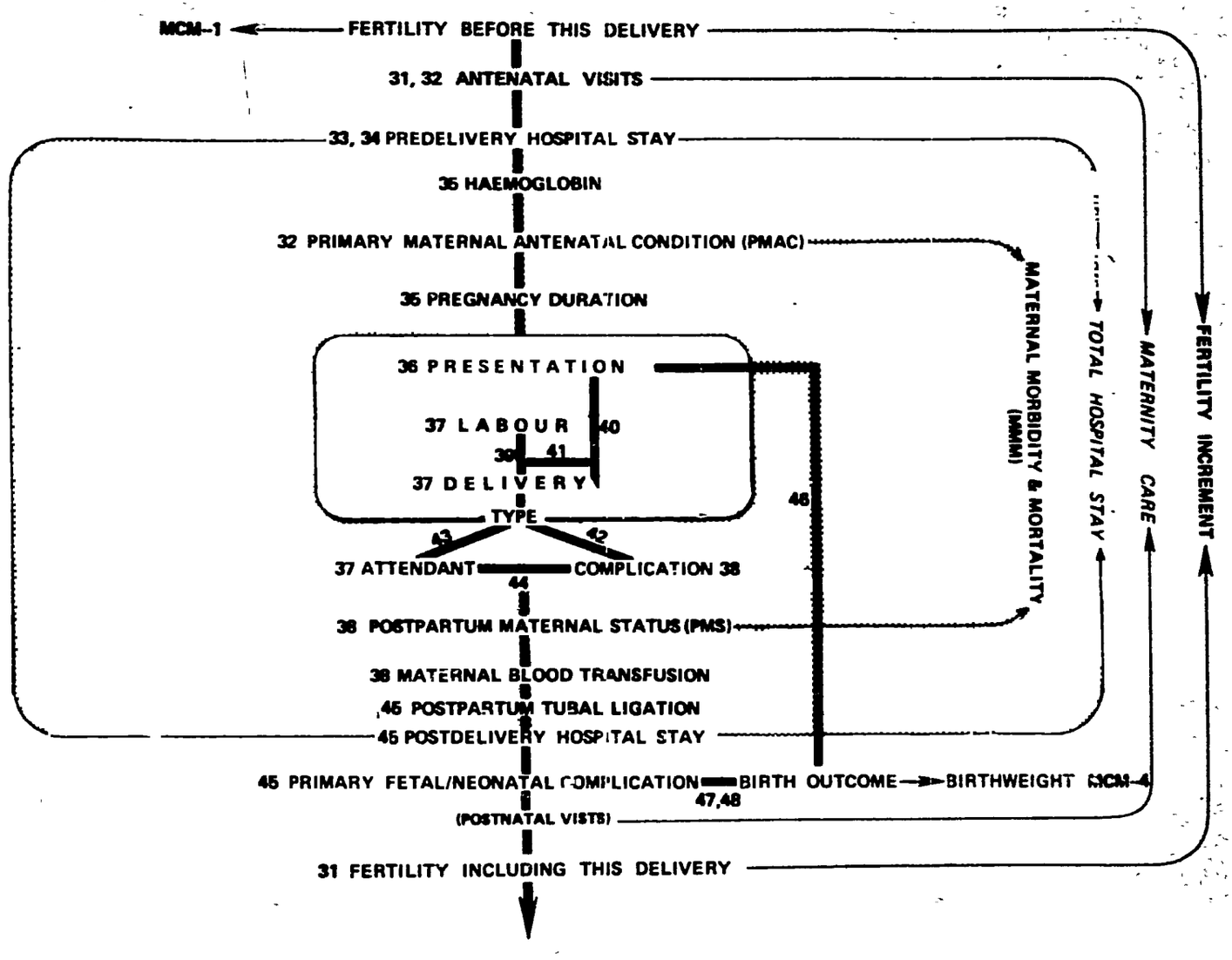




* 'Missends for 'controlled for Question #'

1.7 ANALYSIS FLOW FOR MCM-5

(Numbers refer to the Topical Data Panels)



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  2.4.2 Intrapartum, Model and Figures 51-69
  2.4.3 Postpartum, Model and Figures 81-90
2.5 A Service-cum-Research Strategy
  2.5.1 From MCM-Service to Service-Research
  2.5.2 Empirical Research Model: A starting point

2.1 RATIONALE
Illustrated Findings

This section illustrates findings pertaining to the delivery recorded with the pretest questionnaire and extracted from the twenty standard computer outputs generated on 10 October 1976. The technique of ranking the findings among the twenty data sets was chosen to display transclinical ranges, distributions, and medians for easy access. This approach also provides a (1) feasible, systematic means of searching for statistical associations among variables recorded for the antepartum, intrapartum, and postpartum and, as important, (2) a constant mechanism for determining whether an observed transclinical association between two variables might also be linked to "general development". This concomitant examination of the findings at two levels sets the stage for creative inductive reasoning leading to the formulation of work hypotheses that would call for specific in-depth analyses. This, in turn, would ultimately lead to refinement of the questionnaire and the standard computer program.

Each association uncovered by transclinical ranking should be considered as one link in a complex interactive system of variables. However, the figures are self-contained and are accompanied by short descriptions which summarize the salient observations. However, they permit to 'go back' to the Data Panels.

In order to secure a *functional inventory* of the observed associations, three models have been organized for antepartum, intrapartum,and postpartum. (See the following pages.) The figures that suggested each association are referenced on the model. Common sense would very often dictate the *direction* of an association and thus upgrade a statistical association into a cause-effect statement. Thus it is quite plausible to rename the observed inverse association of general development and fertility attainment as "negative development effect on fertility" (as given in 2.2 and Figure 31). The most salient findings may be summarized as follows:

1. *Antepartum.* General development promotes antenatal care (Fig. 32), lengthens pregnancy duration (Fig.42), increases haemoglobin (Fig. 44), but depresses fertility (Fig. 31). Furthermore, development and antenatal care work together and have both an important negative effect on fertility: they are *synergistic*. This has important practical implications in national economic *versus* health planning.

2. *Intrapartum.* General development promotes physician attendance at delivery (Figs. 62,63) and obstetrical intervention by artificial rupture of membranes (Fig. 53); oxytocic administration (Fig.54); induced labour (Fig.55, 56); the use of forceps/vacuum (Figs. 57, 58, 61) and caesarean section (Figs. 52, 55, 57, 60). Pregnancy duration governs birthweight (MCM-4, Fig. 22,23) which in turn is governed by general development(Fig.21), as is pregnancy duration (Fig. 42). Note then the *the synergy* of (development-antenatal care-physician at delivery). Again, the implications are vast for health planning.

3. *Postpartum.* As stated above, general development promotes physician attendance at delivery (Figs. 62, 63, 65) and increased birthweight (MCM-4). As important, it reduces foetal/neonatal complications (Figs. 89,90) as well as perinatal mortality (Figs. 85-87,89,90).

The obstetrician may want to peruse the figures to master the ranges and the often very obvious associations which he then may wish to build into "his mental model". Obviously, this approach will readily lead to creative study of a maternity ward's profile in comparison to other clinics. Above all, it will lead to a probing dialogue on how to improve maternity care services regionally, nationally, and internationally.

2.2 THE DEVELOPMENT EFFECTS: THREE EMPIRICAL MODELS DERIVED FROM TRANSCLINICAL RANK COMPARISONS

2.2.1 ANTEPARTUM MODEL

2.2.2 INTRAPARTUM MODEL

2.2.3 POSTPARTUM MODEL

2.2.1 DEVELOPMENT EFFECTS ANTEPARTUM

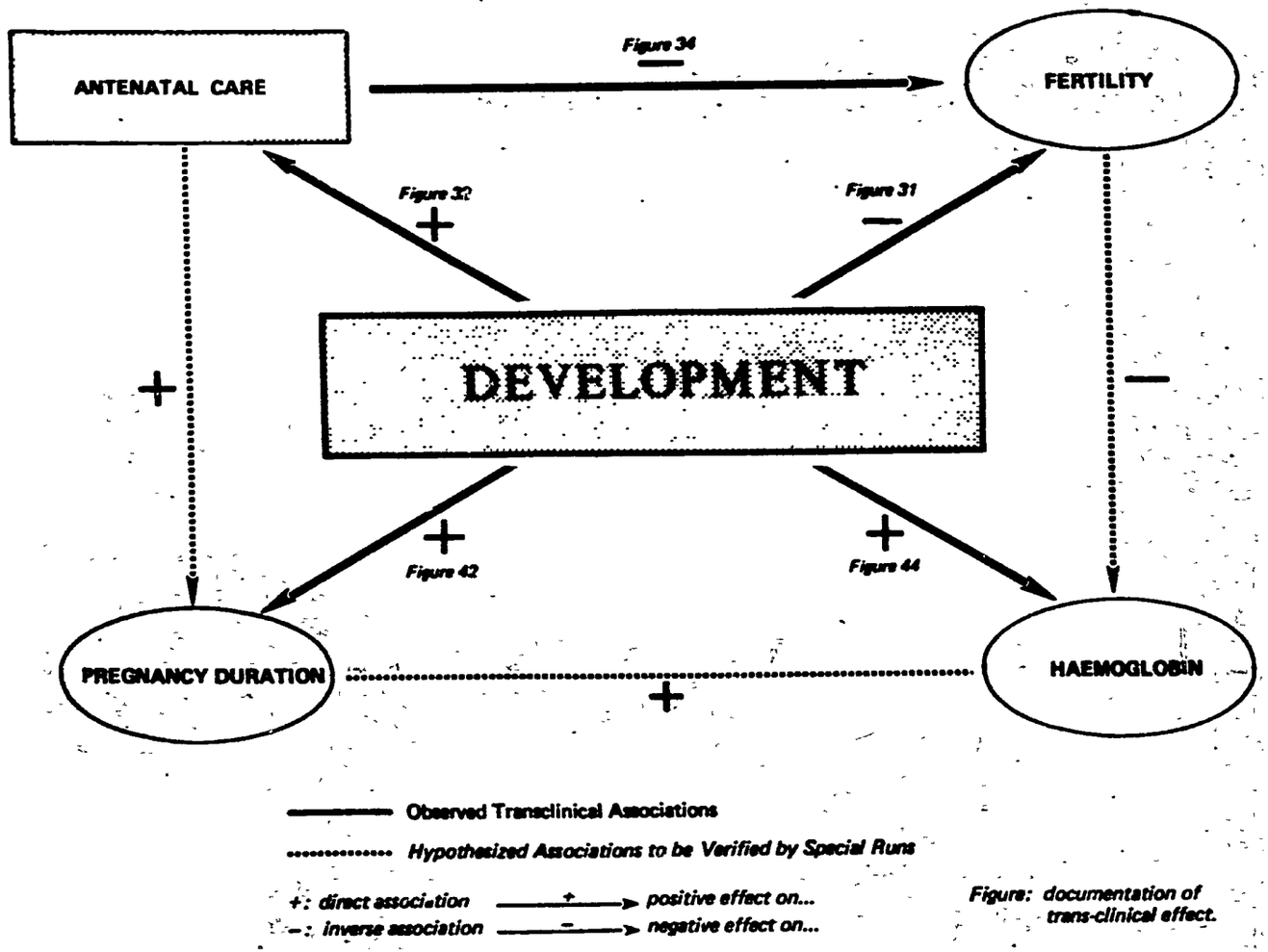
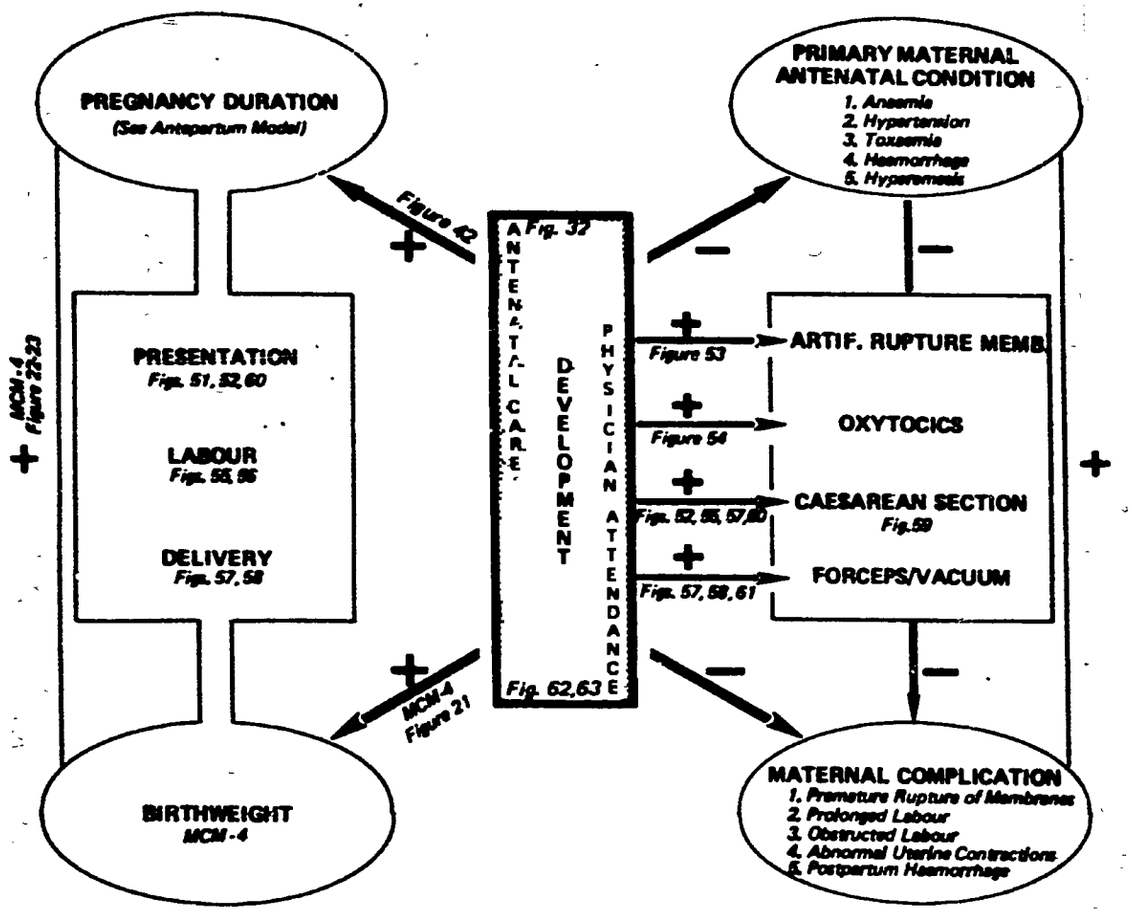
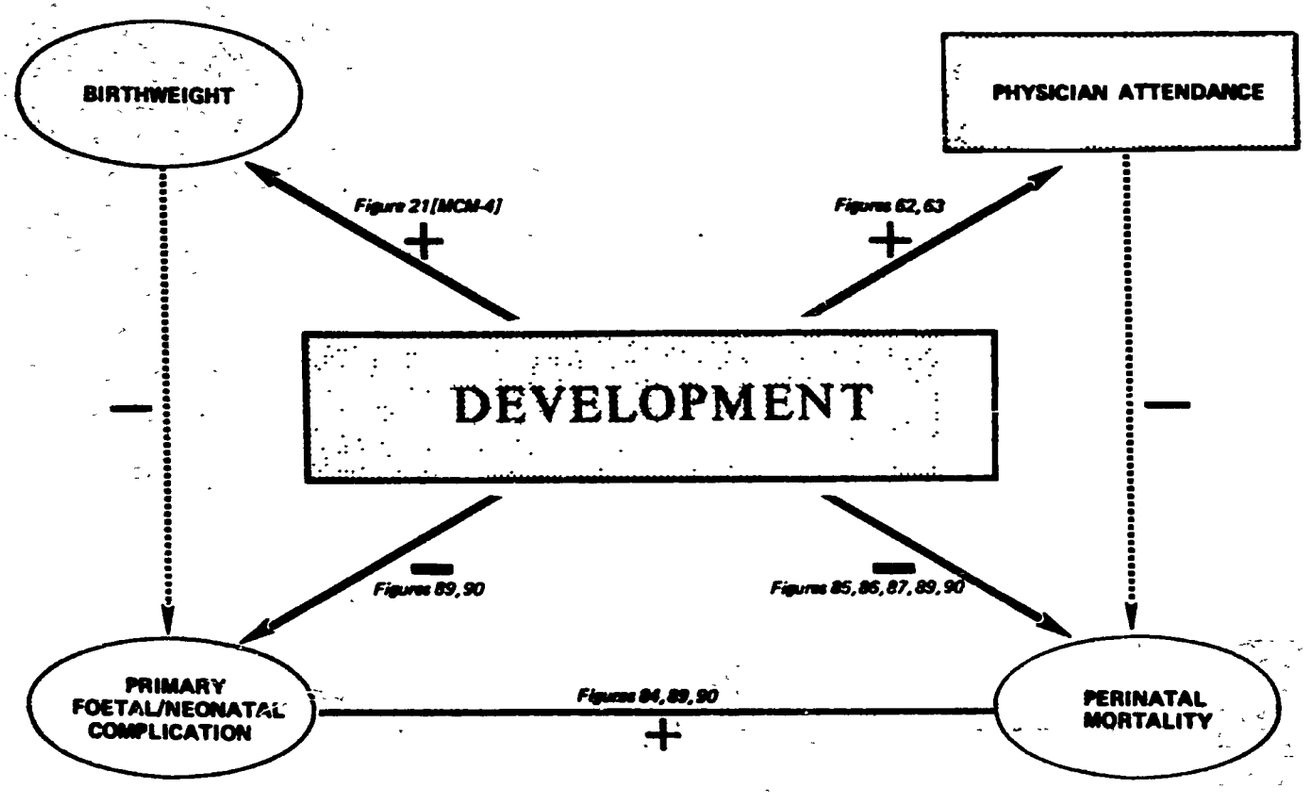


Figure: documentation of trans-clinical effect.

2.2.2 DEVELOPMENT EFFECTS INTRAPARTUM



2.2.3 DEVELOPMENT EFFECTS POSTPARTUM



Observed Transclinical Associations

Hypothesized Associations to be Verified by Special Runs

+: direct association —+→ positive effect on...

−: inverse association —−→ negative effect on...

Figure: documentation of trans-clinical effect.

2.3 TOPICAL INVENTORY OF FIGURES

	TOPIC	PANEL	FIGURES
ANTEPARTUM	Fertility Attainment	31	31
	Antenatal Visits	31,32	32,33,34
	Primary Antenatal Conditions	32	35,36,37
	Hospital Stay	33,34,45	38,39,40
	Pregnancy Duration	35	41,42,43
	Haemoglobin at Admission	35	44
INTRAPARTUM	Presentation	36,40	51,52
	Artificial Rupture of Membranes	36	53
	Oxytocics Administered	36	54
	Labour	37	55,56
	Delivery	37,39,41	57,58
	Caesarean Section	37,39,41	59,60
	Forceps Vacuum Delivery	37,39,41	61,
	Attendant at Delivery	37,44	62,63
	Primary Complication of Delivery	38,42,44	64,(63)
	Postpartum vs Antepartum Haemorrhage	38,32	65
	Umbilical Cord	38	66
	Postpartum Maternal Status	38,44	67
	Maternal Blood Transfusion	38	68
POSTPARTUM	Tubal Ligation and Hospital Stay	45	81
	Primary Foetal/Neonatal Complications	45,47,48	82,83,84
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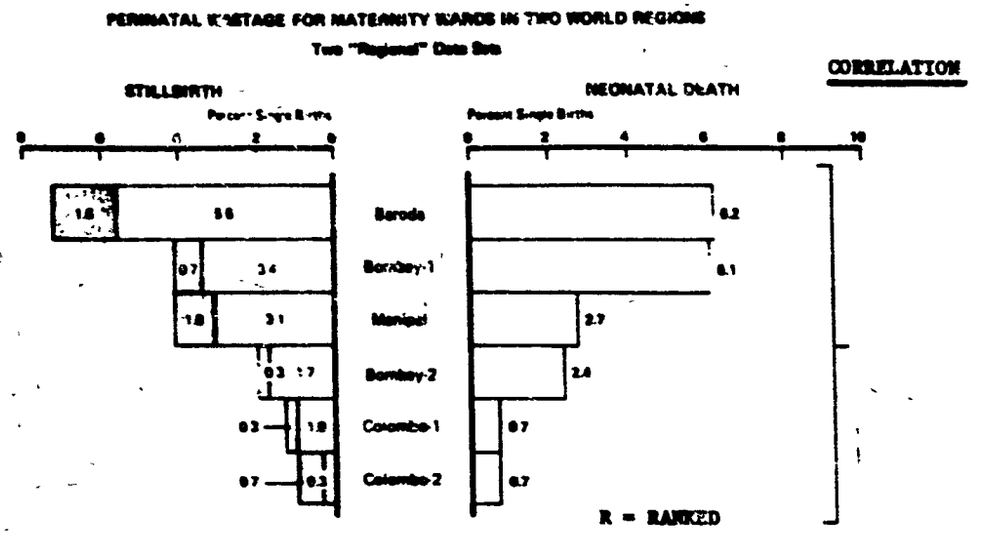
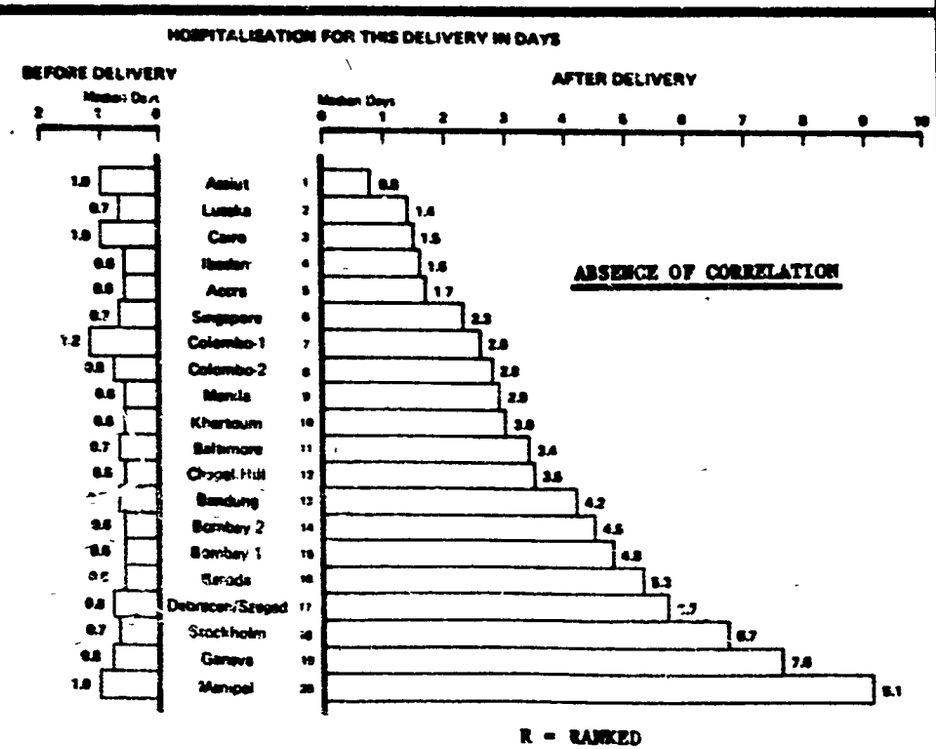
Two Examples from MCM-5





2.4.0 PICTORIAL CORRELATIONS

A Study Tool For Physicians

Ranking of variable A across the clinics leads to a typical shape of triangular form. If another variable (B) is then given and projected into the opposite direction, three possibilities emerge:

a) Positive Association

b) Negative Association

c) No association: Independence of the two variables.

Two examples as derived from this analysis:

1. Ranking of Neonatal Deaths and plotting the corresponding values of stillbirths generates a strong positive association (see figure above to left).
2. Postdelivery Hospital Stay does not correlate with Before Delivery Hospital Stay. The latter is independent of the other variable.(see figure to the left).

If the direction of an association can be inferred by common sense, the association is then called:

" (x) effect on (y)"

The model would carry this as a 'link with arrow'.

For instance: "Development Effect on Perinatal Wastage"
see Postpartum Model and Figures 85-87,89,90.

In sum, the obstetrician/gynaecologist can engage in (pictorial) correlation studies by thorough contemplation of a ranked variable and an 'adjacent' variable.

The Figures on the next 40 pages should be studied with this general outlook.

Columns in the Data Panels can be combined at leisure

2.4.1 ANTEPARTUM

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2.4.1 DEVELOPMENT EFFECTS ANTEPARTUM

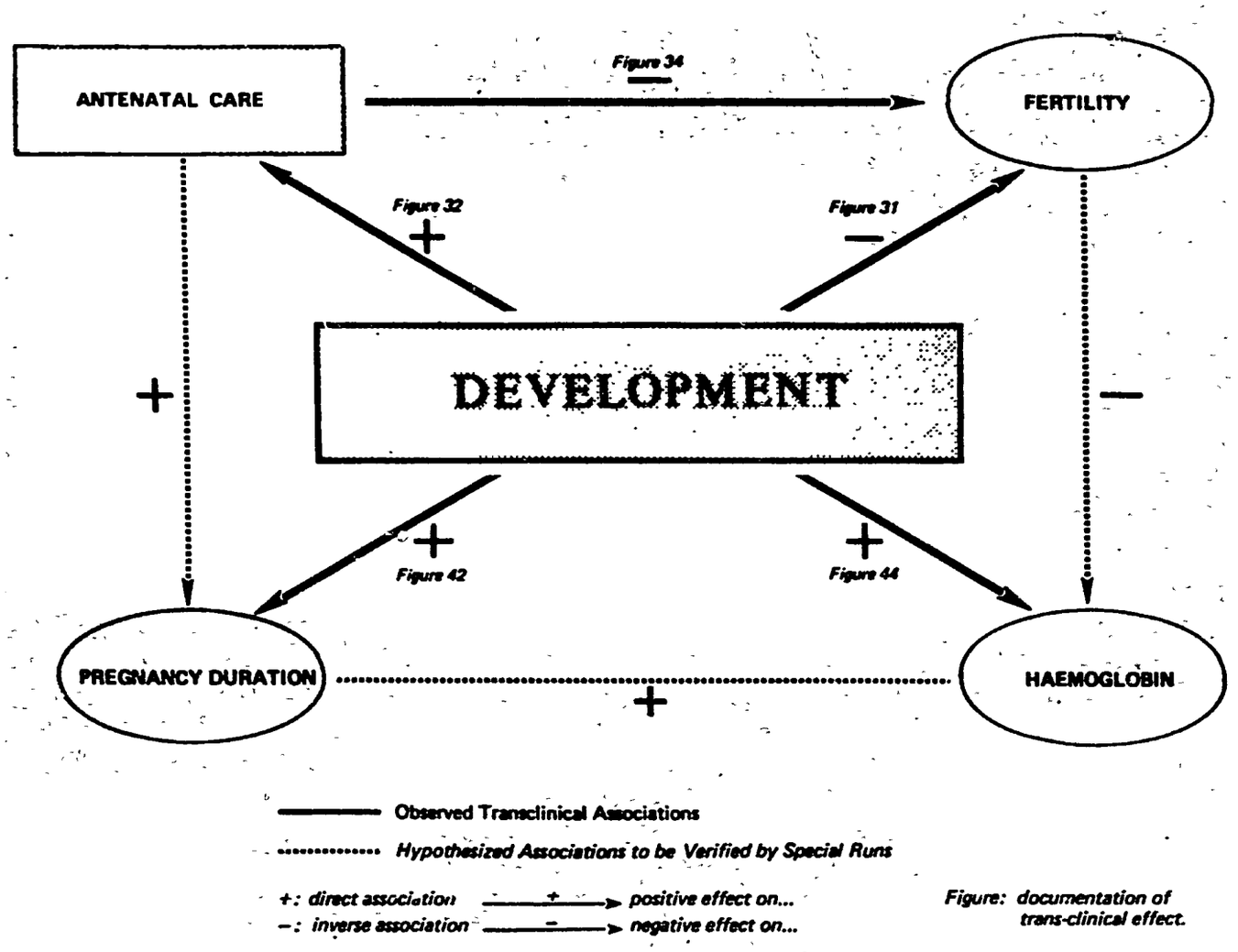

Figure: documentation of trans-clinical effect.

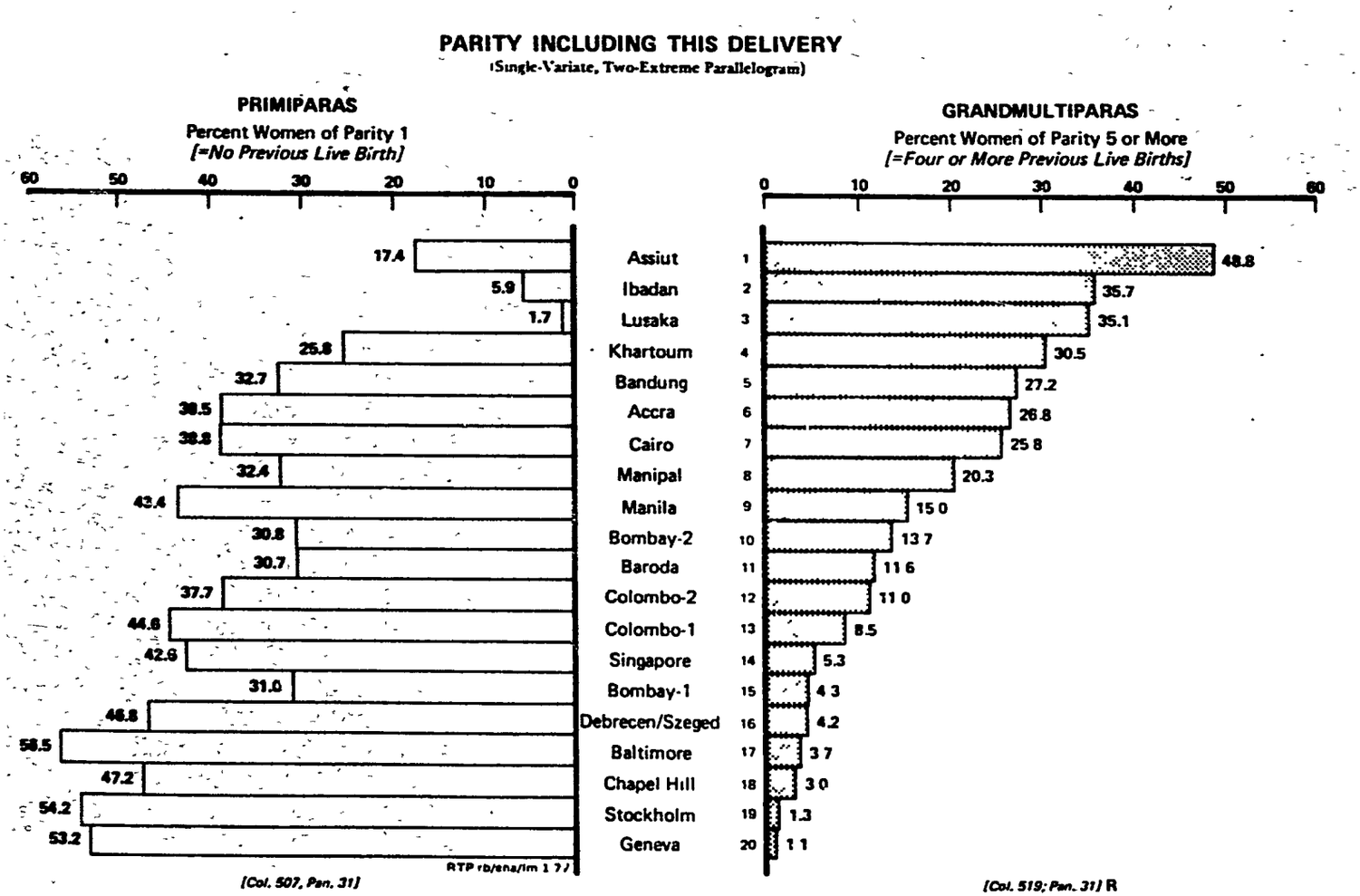

Figure 31. Ranking in Descending Order of the Samples Regarding Percent GRANDMULTIPARAS (Right). Corresponding Values of Percent PRIMIPARAS (Left).

Comparison after this delivery of the percent of GRANDMULTIPARAS with the percent of PRIMIPARAS across the twenty institutions indicates both (1) a fertility structure effect *reflecting the samples' fertility attainment and (2) a* place effect *reflecting the institutions' catchment areas. The geographic sequence is quite compatible with the regional demographic status: fertility is* highest *in the African samples and* lowest *in the developed country samples while the Indian Subcontinent samples take an* intermediate *position. Note the virtual absence of Primiparas for the samples in Lusaka and Ibadan, a burgeoning point for more intensive MCH activities aiming for* routine referral *of high risk pregnancies at low parity. Except for some African samples, the Primiparas constitute over 30 percent of the institutional deliveries, an unique opportunity for* routine 'spacing education'.

ABSENCE AND ABUNDANCE OF ANTENATAL VISITS PRIOR TO THIS DELIVERY

[SAMPLES RESTRICTED TO PARITY 2-4 WOMEN AT THIS DELIVERY]

(Single-Variate, Two-Extreme Parallelogram)

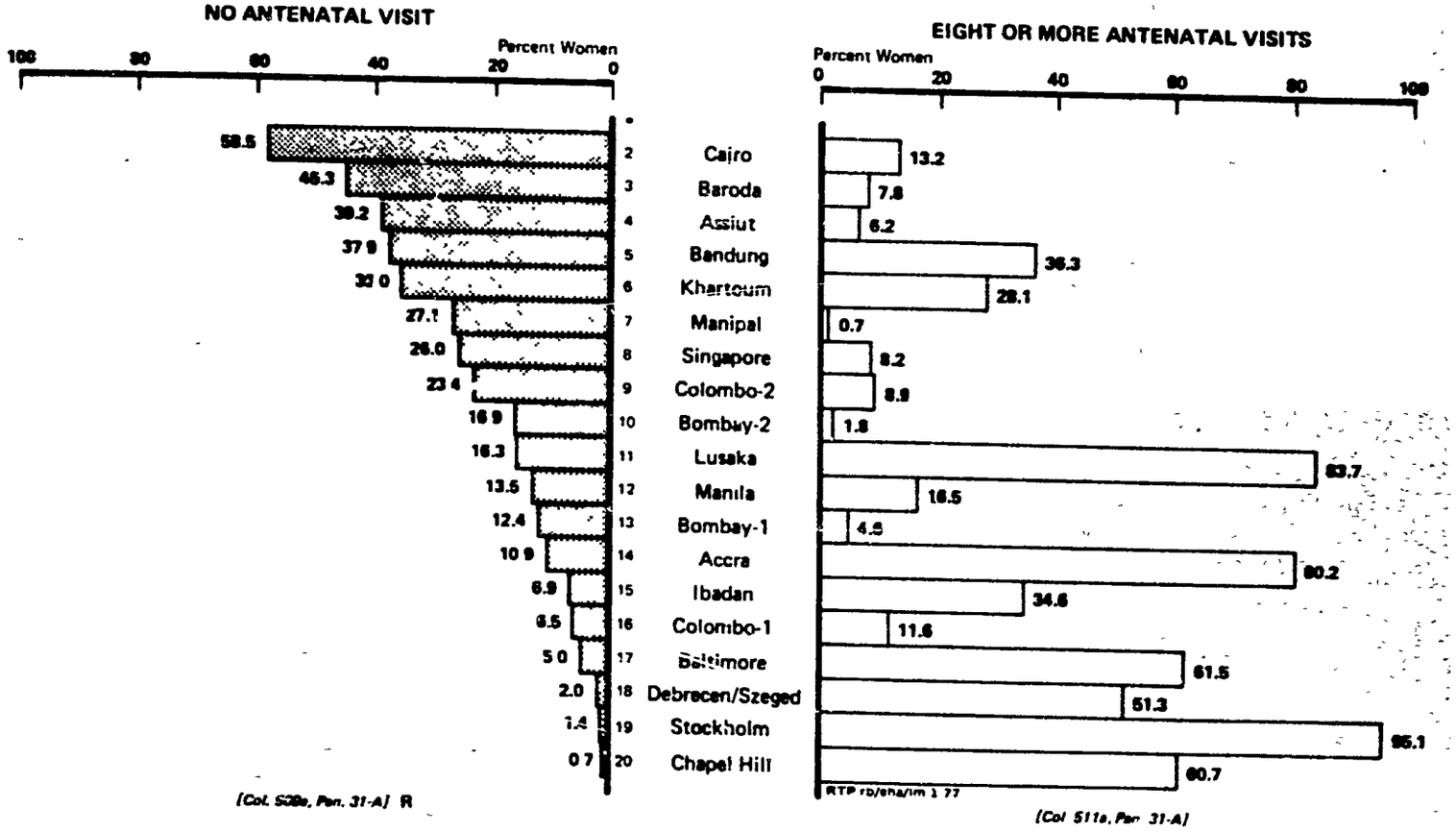

Figure 32. Ranking in Descending Order of the (restricted) Samples Regarding ABSENCE OF ANTENATAL VISITS (Left). Corresponding Values of ABUNDANCE OF ANTENATAL VISITS (Right).

For developed country samples, there is virtual absence of "no antenatal visits". over fifty percent of the women had "eight or more antenatal visits". At the other extreme are two samples from Egypt in which forty or more percent women had "no antenatal visits" and only 13.2 and 6.2 percent of the women had eight or more antenatal visits. In short, a parallelogram would indicate the existence of a broad cross sectional association of antenatal care and development. Note also the strong place effect on antenatal care indicated in the three African samples (Ibadan, Accra, and Lusaka)

This information was not available for the Geneva sample.

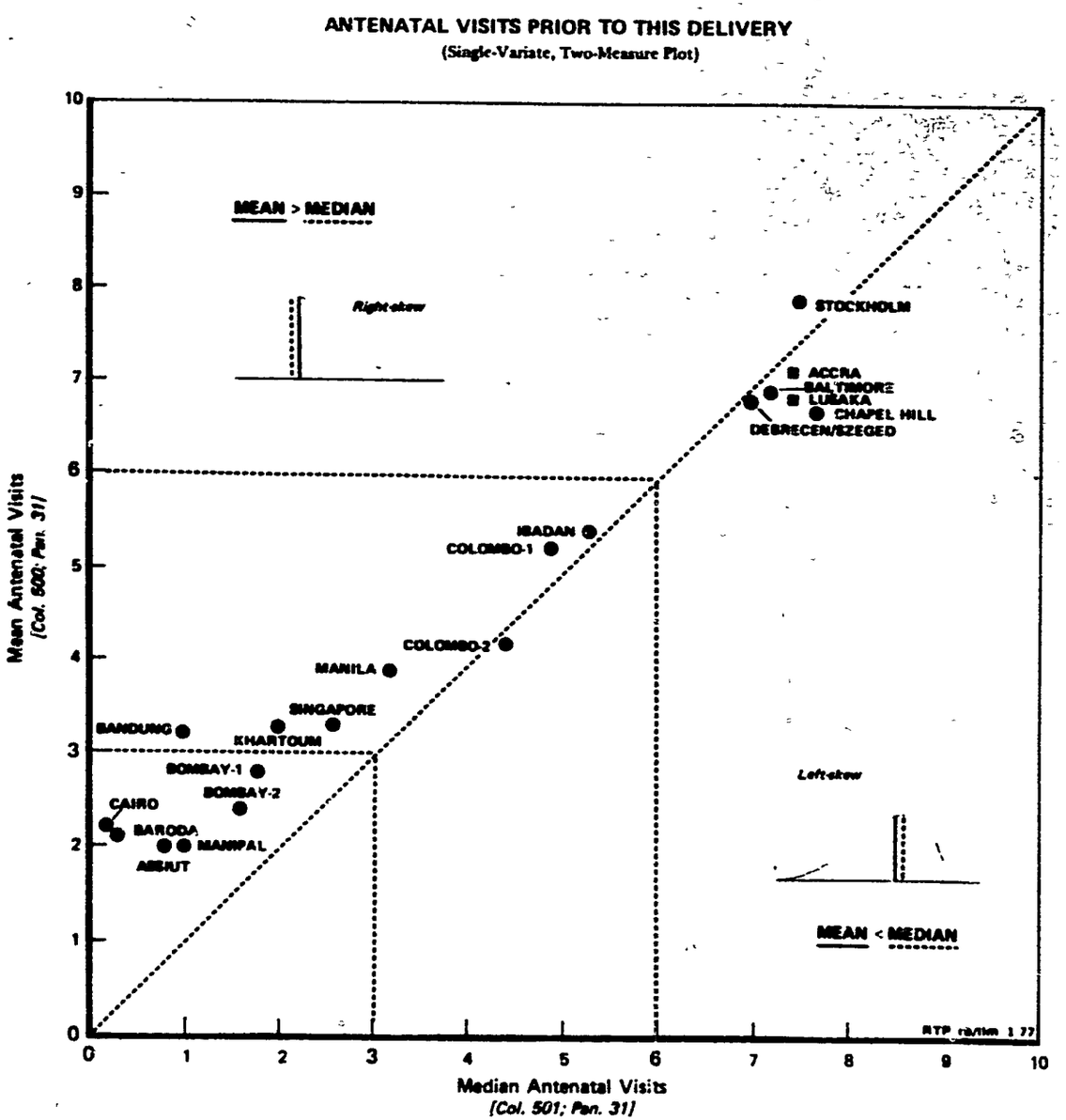

Figure 33. Charting of Two Different Measures of Central Tendency of the Frequency of ANTENATAL VISITS for each Institutional Sample Enables Refined Ranking and Broad Cluster Classification. Three Levels of Antenatal Visits May be Distinguished: (A) High (above 6), (B) Intermediate (3-6), and (C) Low (up to 3). *Overall, the mean is substantially greater than the median for sparse antenatal visits (mean > median) against a quite similar or greater median than mean for abundant antenatal visits (mean median). This reflects a shift of the skewness of the frequency distribution from a right-skew (mainly sparse antenatal care) to a left skew (mainly more intensive antenatal care). Note the high values for Accra and Lusaka that cluster with the Developed Country samples against the low values for Indian and Egyptian samples. Ibadan and the Sri Lanka samples reached typically intermediate values. The next cross sectional analysis should enable trend studies of antenatal care evolution for each institution*

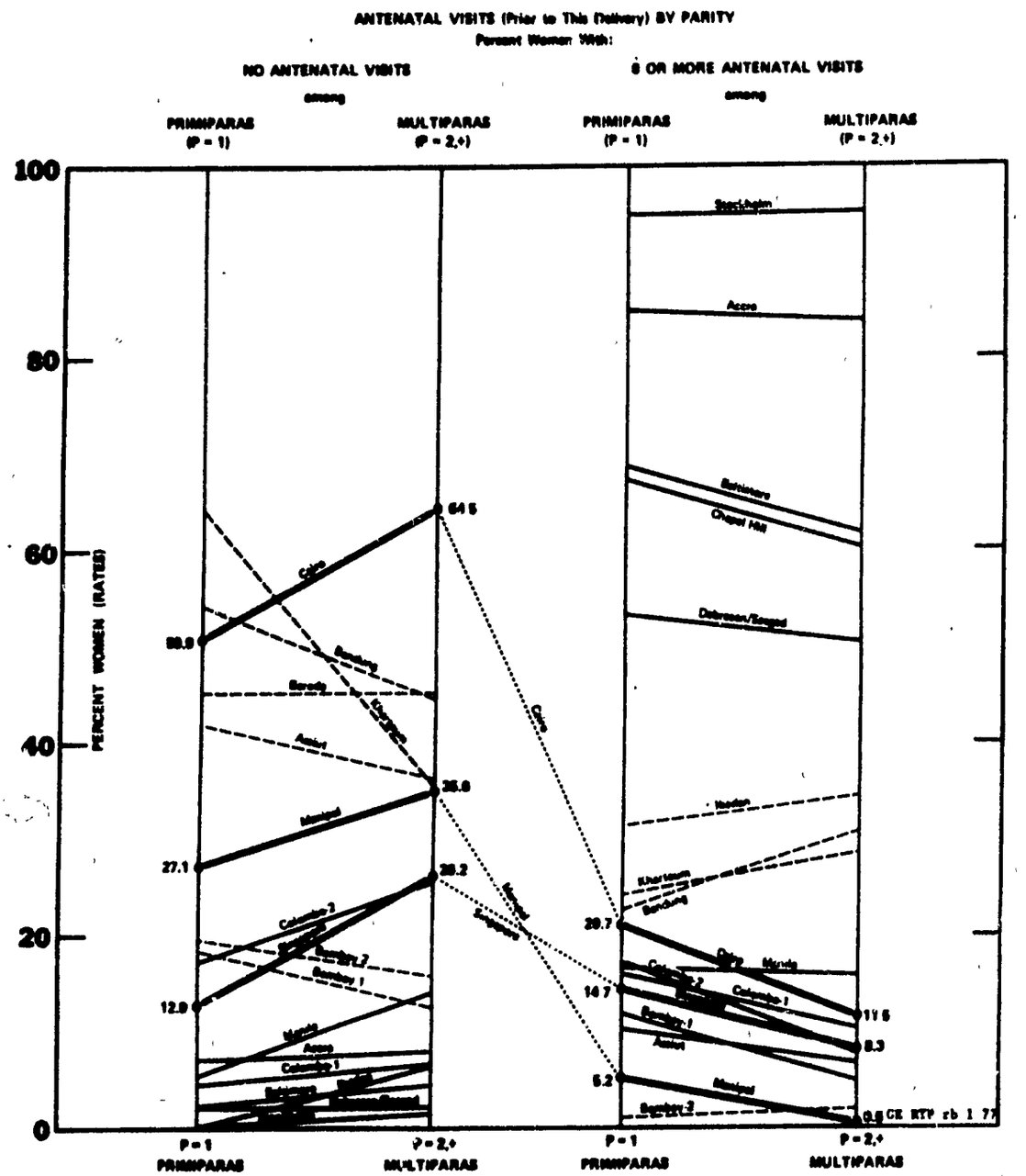

Figure 34. Ranking of PRIMIPARAS (This Delivery = first delivery) and MULTIPARAS (This Delivery = second or higher order delivery) in Descending Order Regarding Absence of Antenatal Visits (Left) and in Ascending Order Regarding Abundance of Antenatal Visits (Right).

HYPOTHESIS Recent Progress in Antenatal Visits in the Maternity's catchment area should lead—among PRIMIPARAS (no previous live births = becoming primiparas generation)—to a decrease in "No antenatal visit"-women (Left) and a concomitant increase in "Eight or more visit" women (Right) as compared with MULTIPARAS.

OBSERVATION The resulting 'lead pattern' was found in 13 out of 16 samples. Three lead examples are Cairo, Singapore and Manaus!

OUTLOOK While the majority of the samples exhibit a pattern reflecting an inverse association of parity with antenatal visits, the place effect on antenatal visits is greater than the parity effect. *An next cross-cultural analysis enables trend studies of antenatal care evaluation taking into account both the parity effect (+ trend) and the above baseline values by place.

TWO PRIMARY ANTENATAL CONDITIONS: ANAEMIA AND HAEMORRHAGE

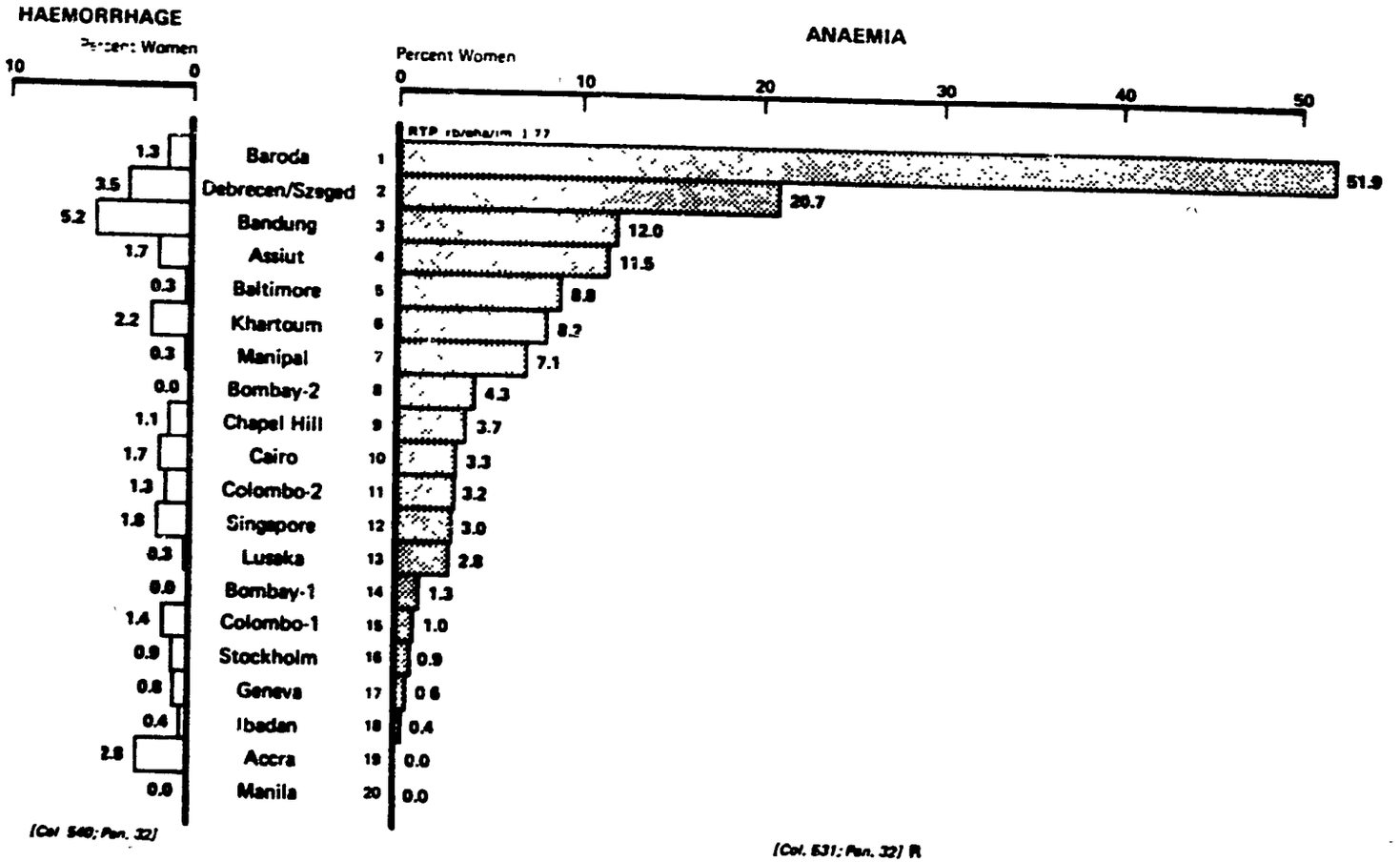

Figure 35. Ranking in Descending Order of the Samples Regarding Percent Women with ANAEMIA (as defined by the individual clinician) as Primary Antenatal Condition (Right). Corresponding Values of HAEMORRHAGE as Primary Antenatal Condition (Left).

The wide range in percentage of women with anaemia within one country (51.9 - 1.3 percent) would indicate differences in definition that should be reviewed. No "inverse association of anaemia with development" is apparent: samples from countries of the two extremes in development are intermingled. Antenatal haemorrhage has a more narrow range (zero to 5.2 percent) across the twenty places (see also Figure 69).

TWO PRIMARY ANTENATAL CONDITIONS: TOXAEMIA AND HYPERTENSION

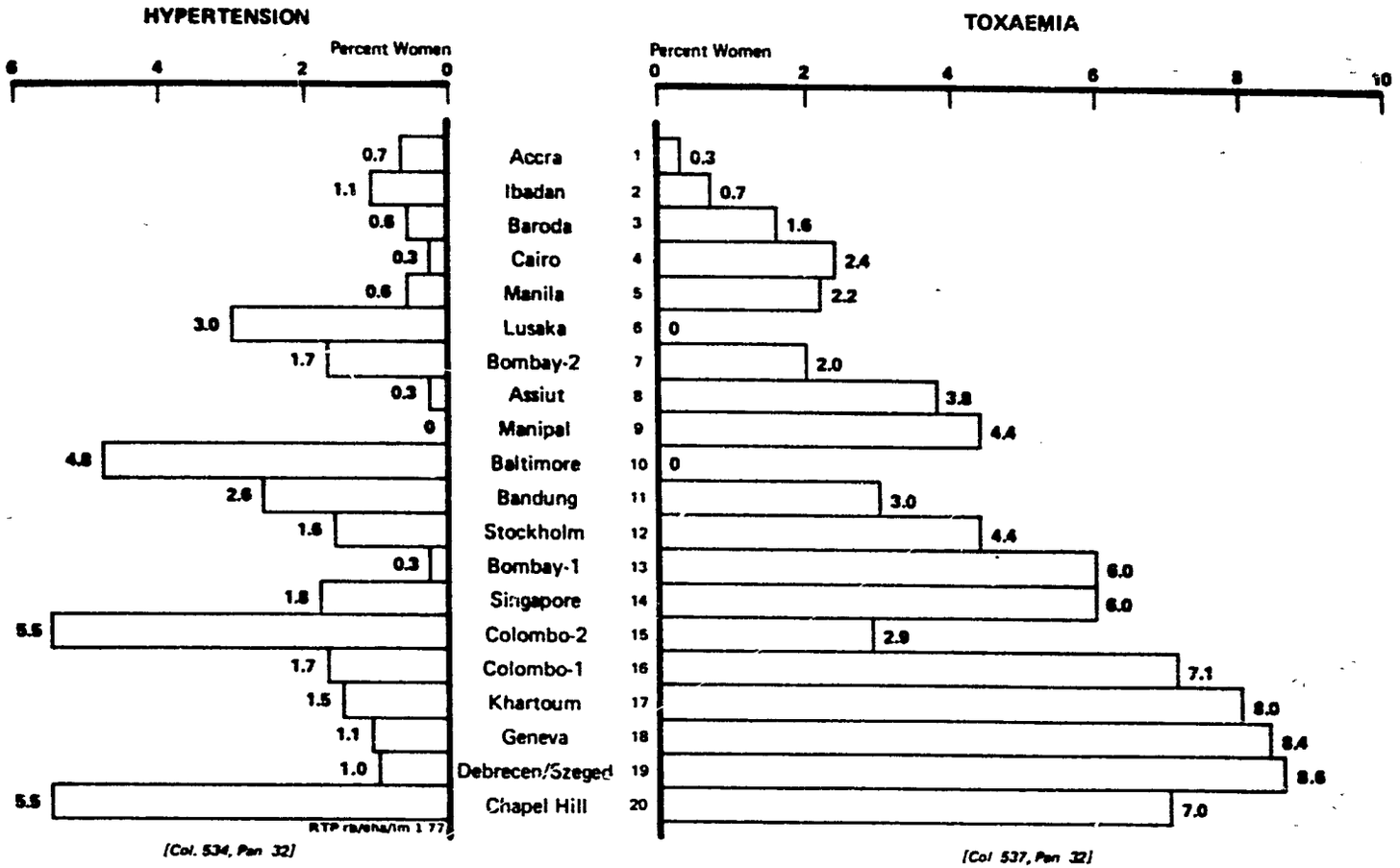

Figure 36. Ranking in Ascending Order of the Samples by the Total Percentage of Women with either Toxaemia or Hypertension as Primary Maternal Antenatal Condition. Subsequent Dichotomy into TOXAEMIA (Right) and HYPERTENSION (Left).

A weak pictorial correlation appears between hypertension and toxaemia across the twenty institutions. There are apparent difficulties in classifying some samples. Various samples from developed countries show the highest percentages of toxaemia and/or hypertension (base of pyramid) while various African countries (top of pyramid), with a notable exception for Khartoum, show the lowest percentages. This is very preliminary and the data needs further treatment.

TOXAEMIA BY PARITY

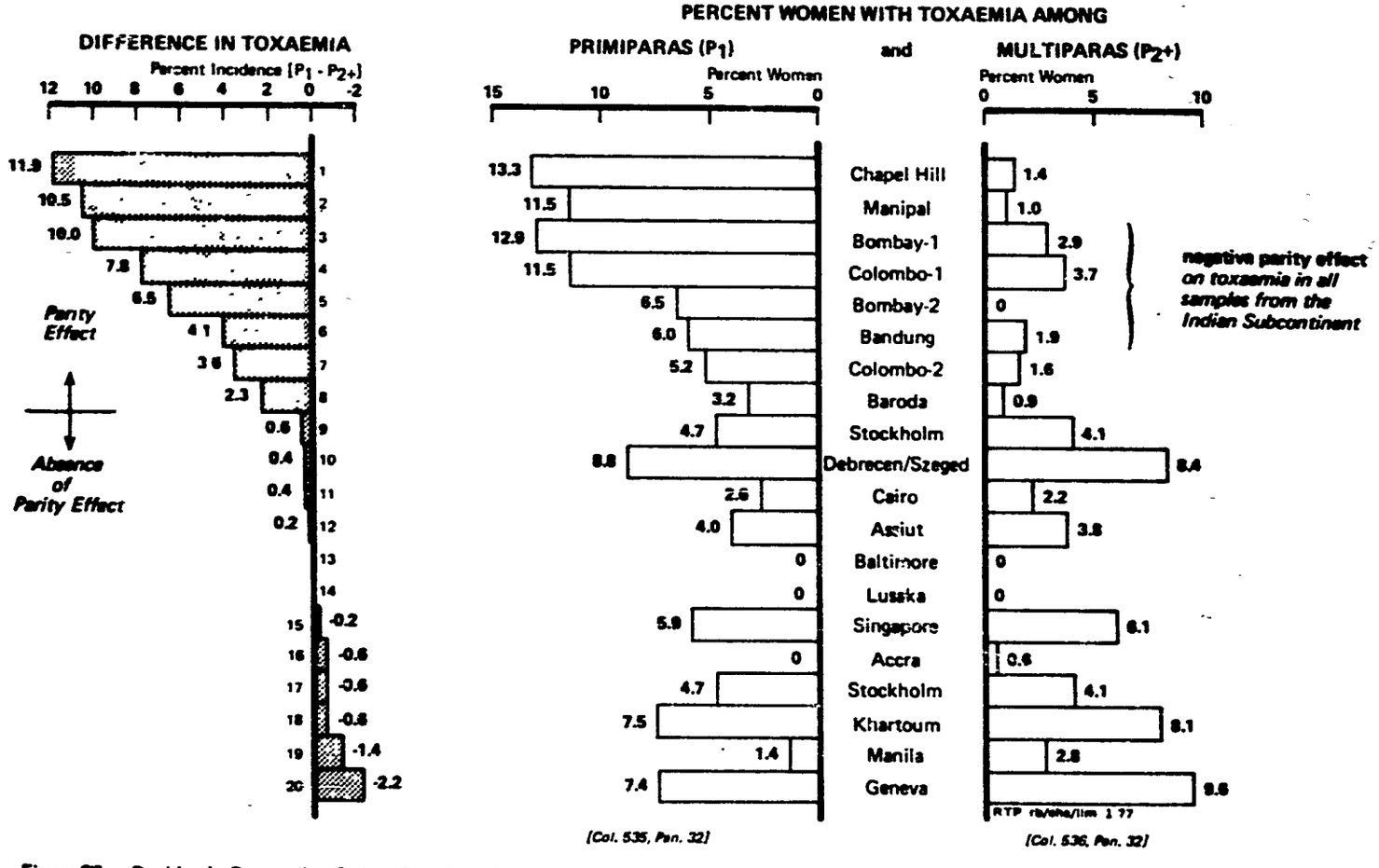

Figure 37. Ranking in Descending Order of the Samples According to the DIFFERENCE in PERCENT INCIDENCE of Toxaemia among Primiparas (P_1) and Multiparas (P_{2+}). Corresponding Values of Percent Incidence for the Two Groups (Right).

The profile of the ranking pattern for the differences would indicate the existence of an important parity effect (upper bulge). Examination of these samples shows that all samples of the Indian Subcontinent cluster in this bulge. It would appear that a common factor operates in this geographic area leading to a negative parity effect on toxaemia. The sample of Chapel Hill merits particular attention as the demonstration of a parity effect opens new questions. Greater samples may bring clarification by controlling for other variables.

HOSPITAL STAY PRIOR TO THIS DELIVERY (Yes versus No)

(Single-Variate, Single-Cutpoint Parallelogram)

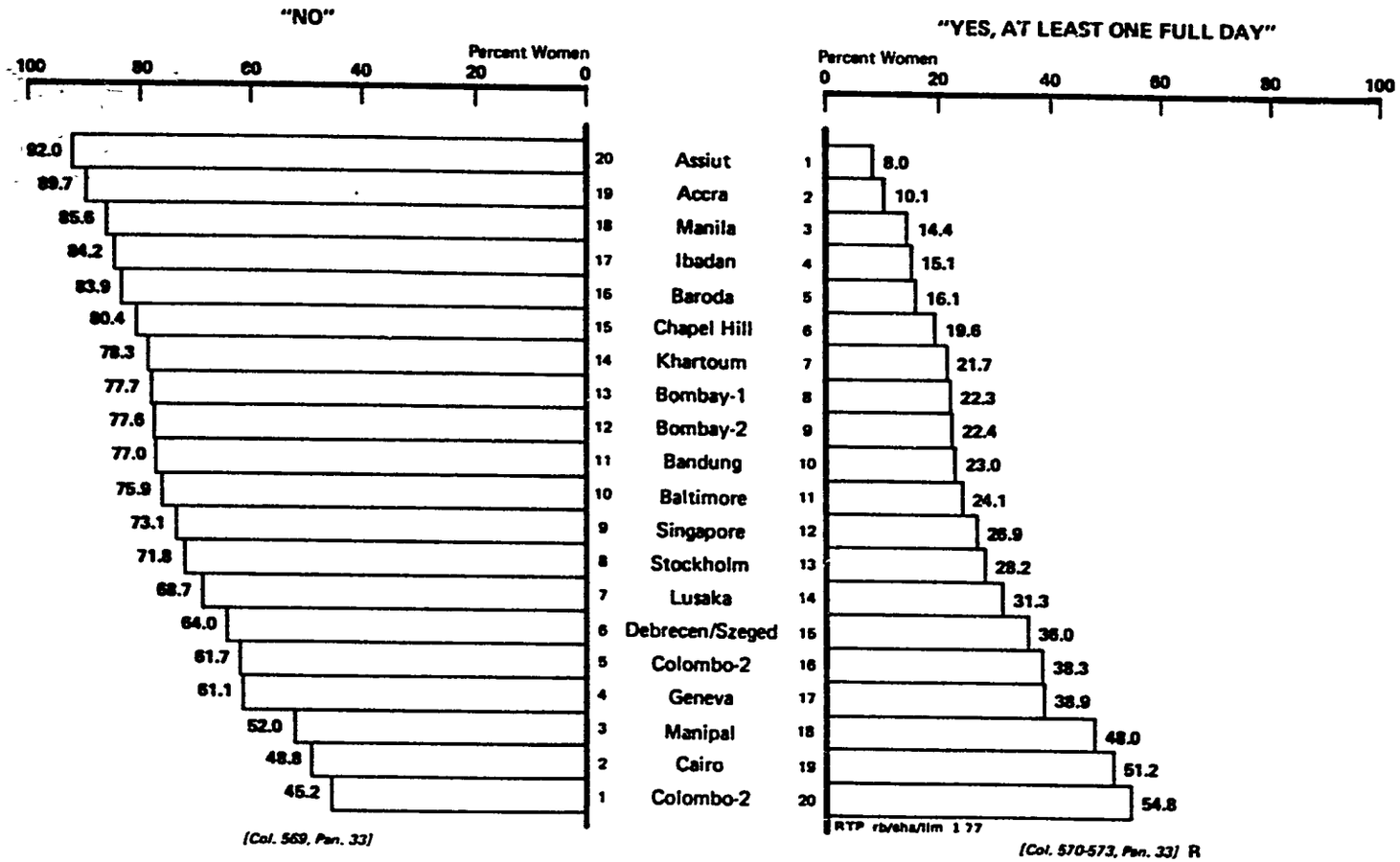

Figure 38. Ranking in Ascending Order of the Percent Women with ONE or MORE FULL DAYS HOSPITAL STAY prior to this Delivery (Right). The Complementary Values with NO HOSPITAL STAY prior to this Delivery (Left).

African samples tend to cluster with few women hospitalized at least one night prior to delivery (except for Cairo and Lusaka). By contrast, the European samples tend to cluster with a substantially greater share in women having been hospitalized at least one night prior to this delivery. The USA samples lie in between. Study of predelivery hospital stay may help to formulate an optimal duration for more general recommendation.

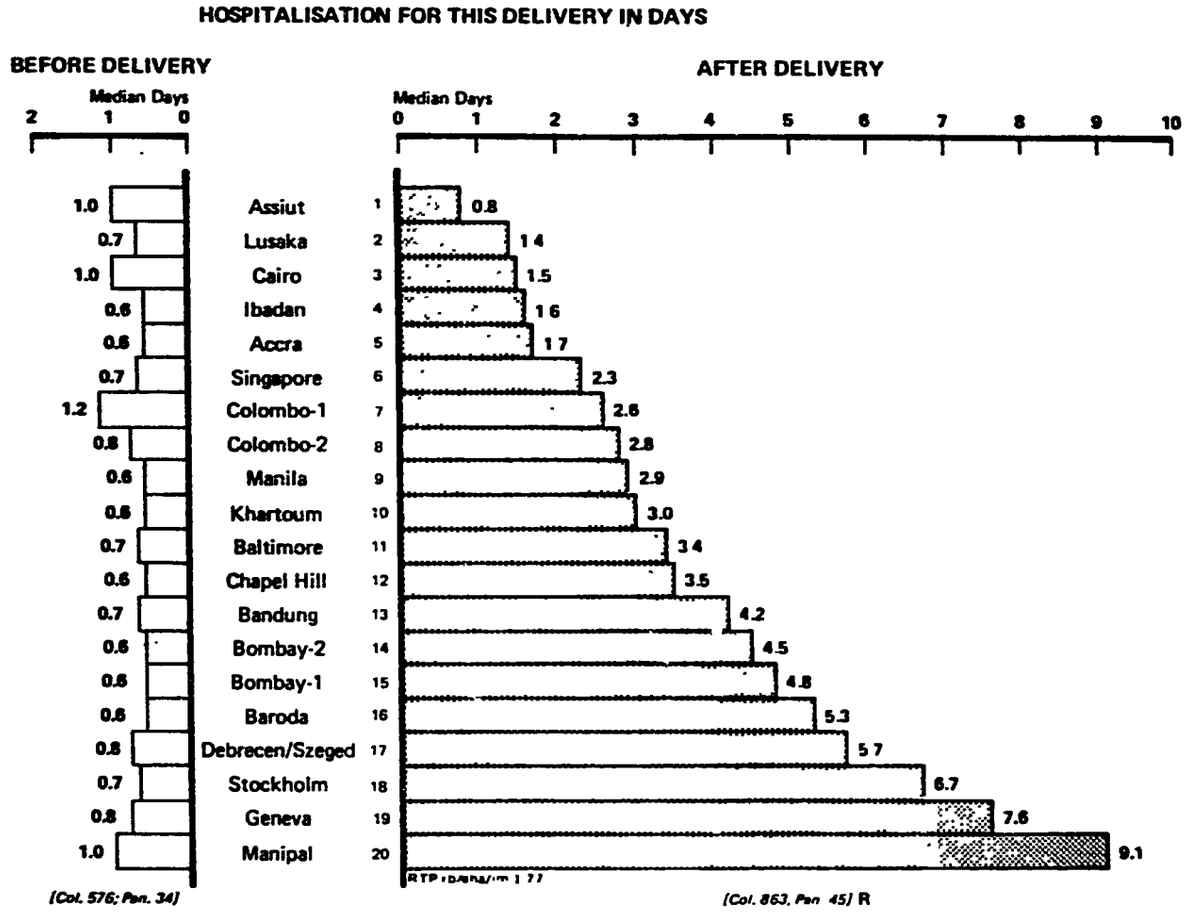

Figure 39. Ranking in Ascending Order of the MEDIAN DAYS OF HOSPITALISATION AFTER DELIVERY (Right). Corresponding Values in Median Days for Hospitalisation BEFORE THIS DELIVERY (Left).

A short pre-delivery hospital stay (pretest median = 0.7 days) contrasts with a much longer (pretest median = 3.2 days) and much more variable (10 fold range) post-delivery hospital stay. Most study samples from Africa *cluster with a short post-delivery hospital stay (0.8 - 1.7 days) while the three* European *samples cluster at the other extreme (5.7 - 7.6) days, while the* USA *samples cluster in between (3.4 - 3.5 days). The relatively long post-delivery stay of the samples for* India *may de due to an important element of* postpartum sterilisation *that would suggest the need for controlling for this intervention when calculating the hospital stay after delivery. Comparison with Figure 38 would indicate the existence of a* positive association *between pre- and post-delivery hospital stay (Africa versus Europe) Note pairing of samples for some cities (Colombo and Bombay).*

This region effect on traditional post-delivery hospital stay *translates systematic variation in management practice that may benefit from future comparative study.*

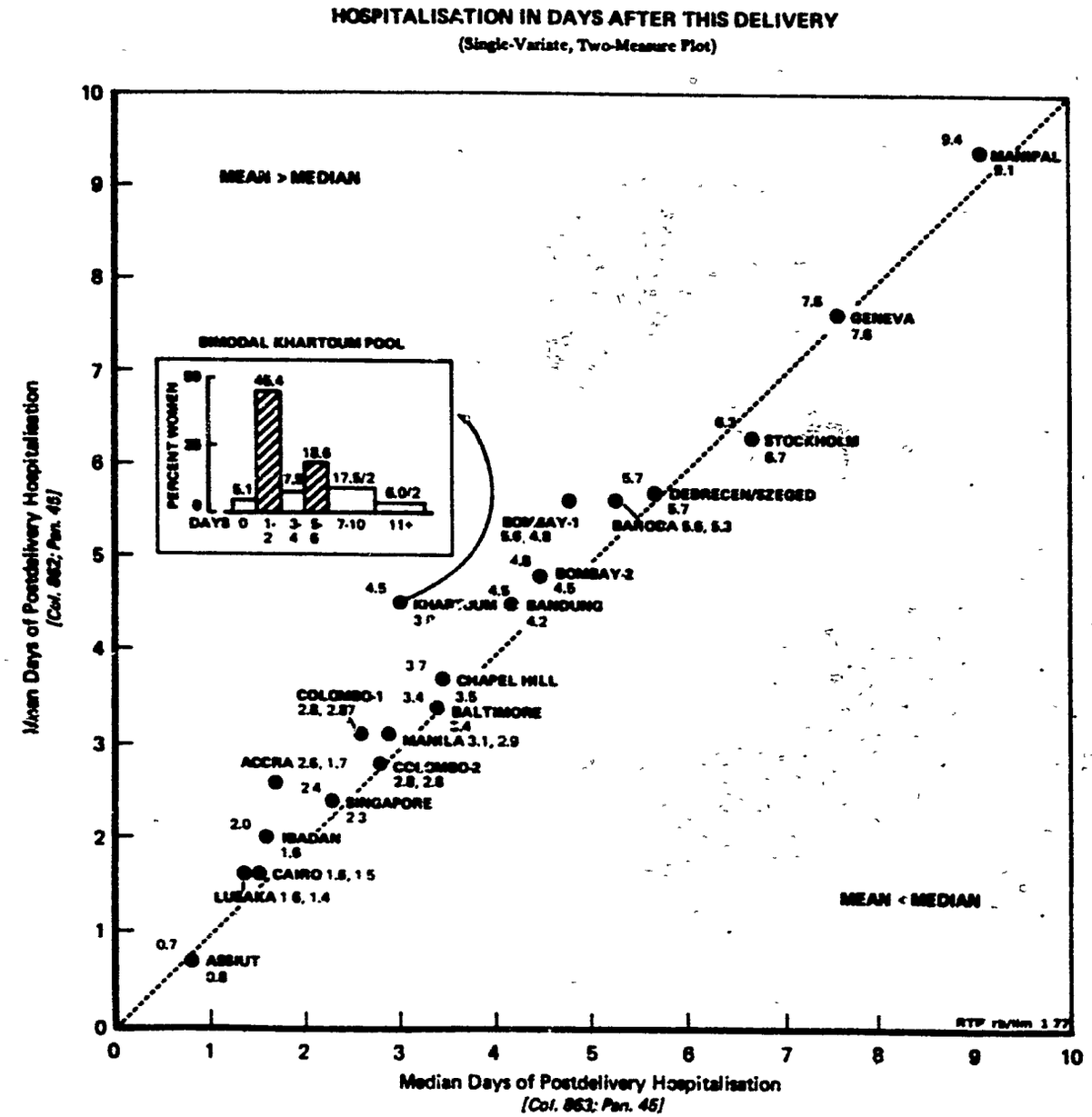

Figure 40. Charting of Two Different Measures of Central Tendency of the LENGTH OF HOSPITAL STAY AFTER THIS DELIVERY for Each Institutional Sample Enables Refined Ranking and Broad Cluster Classification in Addition to Picking Up Samples of Special Interest.

Mean and median are quite similar across the twenty data sets, except for the Khartoum sample (= pool of three hospitals). Closer study of the sample shows bimodal distribution *probably resulting from pooling. Pooling may mask important differences in maternity care management. The overall ranking sequence corresponds to the observations made with the medians alone (Figure 38). Hence the median is an appropriate measure for routine study of hospital stay. Note the Manipal sample from South India (see Figure 81).*

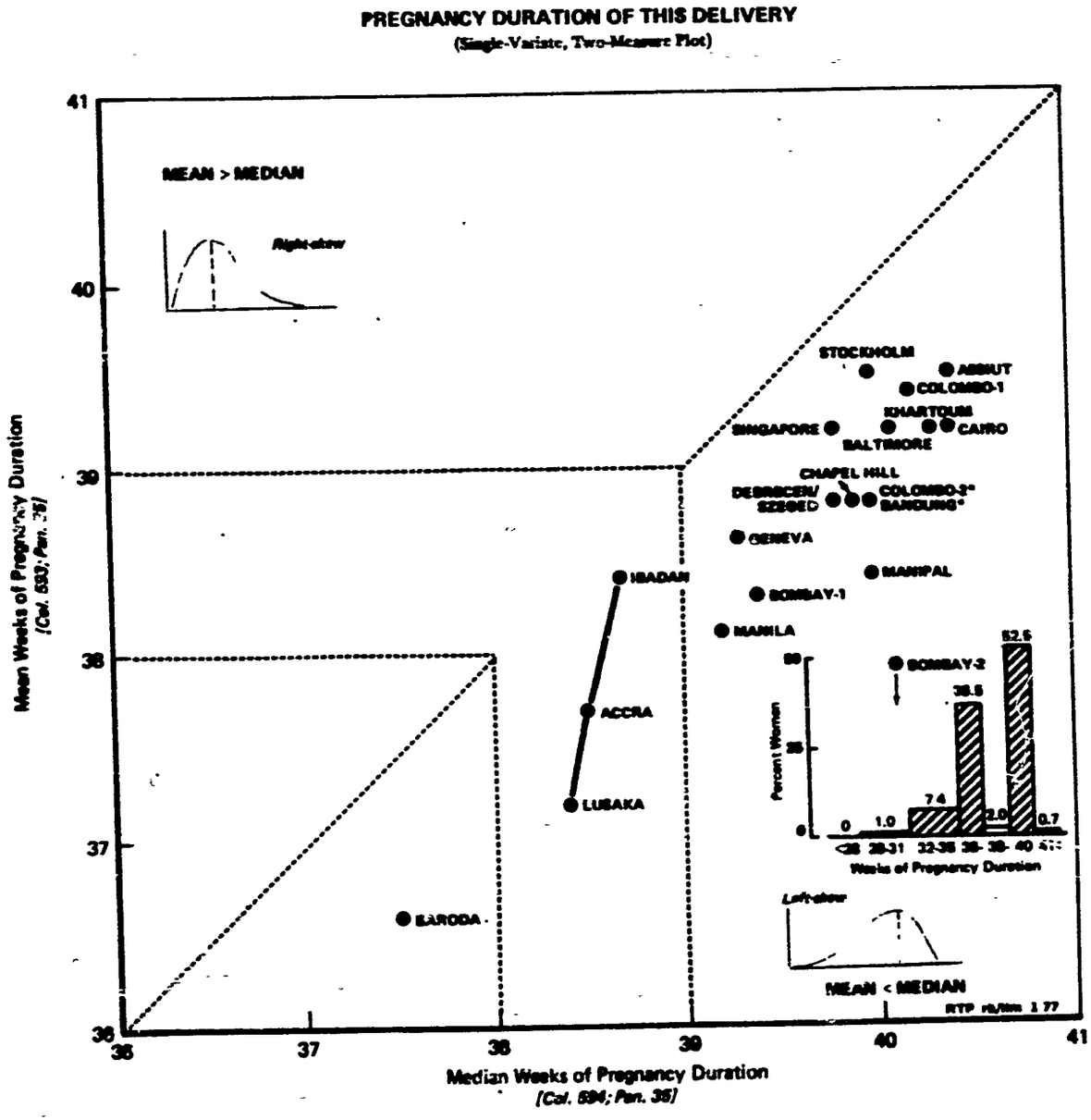

Figure 41. Charting of Two Different Measures of Central Tendency of PREGNANCY DURATION (in weeks) for This Delivery for Each Institutional Sample Enables Refined Ranking and Broad Cluster Classification in Addition to Picking Up Samples of Special Interest.

Throughout, the mean is smaller than the median which thus points to a universal pattern of a left-skew distribution of pregnancy duration. The African samples show a very narrow range of medians which are substantially smaller than in the other samples (38.4 - 38.7 against 39.2 - 40.4). The Baroda sample of north-west India merits particular attention and inquiry into the very short pregnancy duration together with the Bombay-2 sample of suburbia for its large difference in mean and median. The insert-chart shows a bimodality that was found for three separate parity categories. The latter may point to inaccurate calculation and/or recording of the pregnancy duration.

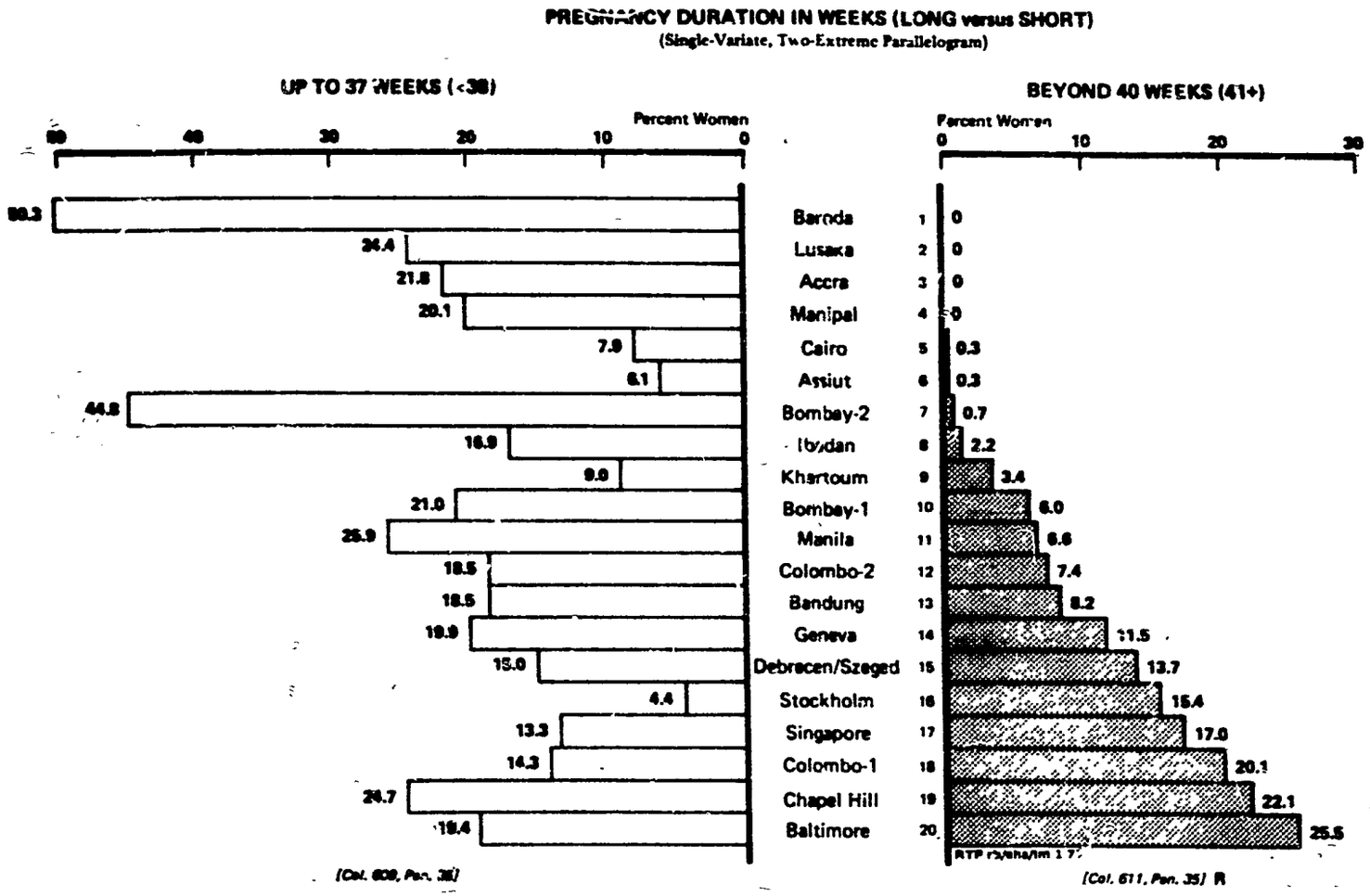

Figure 42. Ranking in Ascending Order of the Percent Women with LONG Pregnancy Duration (41+ weeks) (Right). Corresponding Values for SHORT Pregnancy Duration (<38 weeks) (Left).

All developed country samples (USA, Europe, Singapore) cluster at the high extreme of the continuum of women with over 40 weeks gestation (11.5 - 25.5%), including one Colombo sample. By contrast, the Indian and, even more so, the African samples tend to have virtually no women who reach more than 40 weeks gestation. The samples from Manila and Bandung lie in between. This pattern would suggest an association of "general development" with pregnancy duration.

This is a development effect on pregnancy duration. *Obviously then, the cause-effect chain determining birthweight may be:* "general development" of the maternity ward's catchment area – pregnancy duration – birthweight *[See also Figure 23 in MCM-4, that showed a positive* pregnancy duration effect on *birthweight].*

PREGNANCY DURATION IN WEEKS BY PARITY

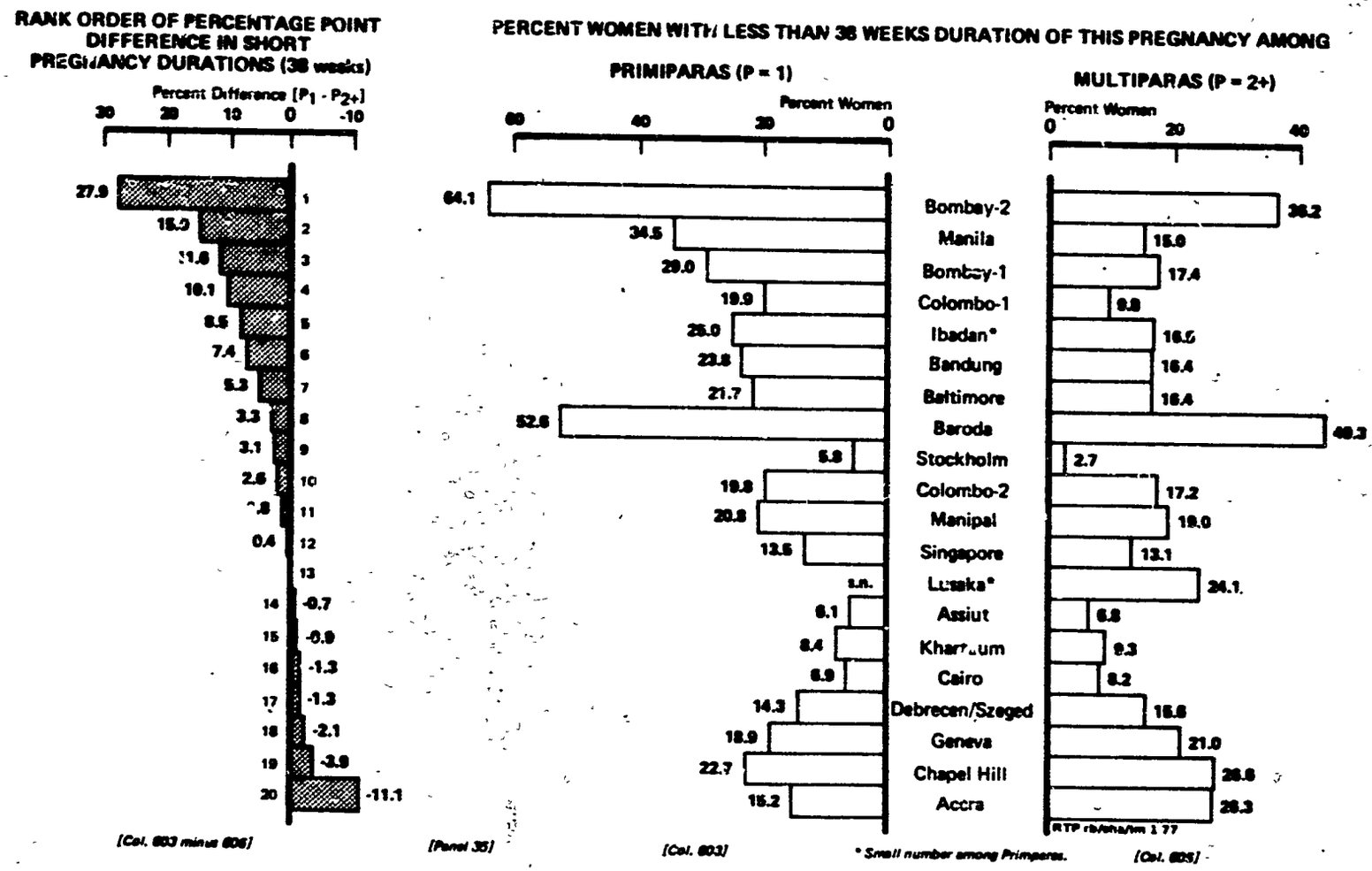

Figure 43. Ranking in Descending Order of the Samples According to the PERCENT DIFFERENCE in SHORT PREGNANCY DURATION (<38 weeks) among Primiparas (P_1) and Multiparas (P_{2+}). Corresponding Values of Percent Women with Short Pregnancy Duration for the Two Parity Categories (Right).

The profile of the ranking pattern for the differences in pregnancy duration would indicate the existence of a parity effect (upper bulge), primiparas tending to have a shorter pregnancy duration than multiparas. Note that both Bombay samples exhibit such a parity effect. Note that no such parity effect was picked up for the Egypt/Sudan and various European and USA samples. Parity specific means and medians of pregnancy duration will also help to clarify this preliminary observation that may be linked to geography, race and/or maternity care management.

This preliminary observation of a positive parity effect on pregnancy duration merits further examination with larger samples.

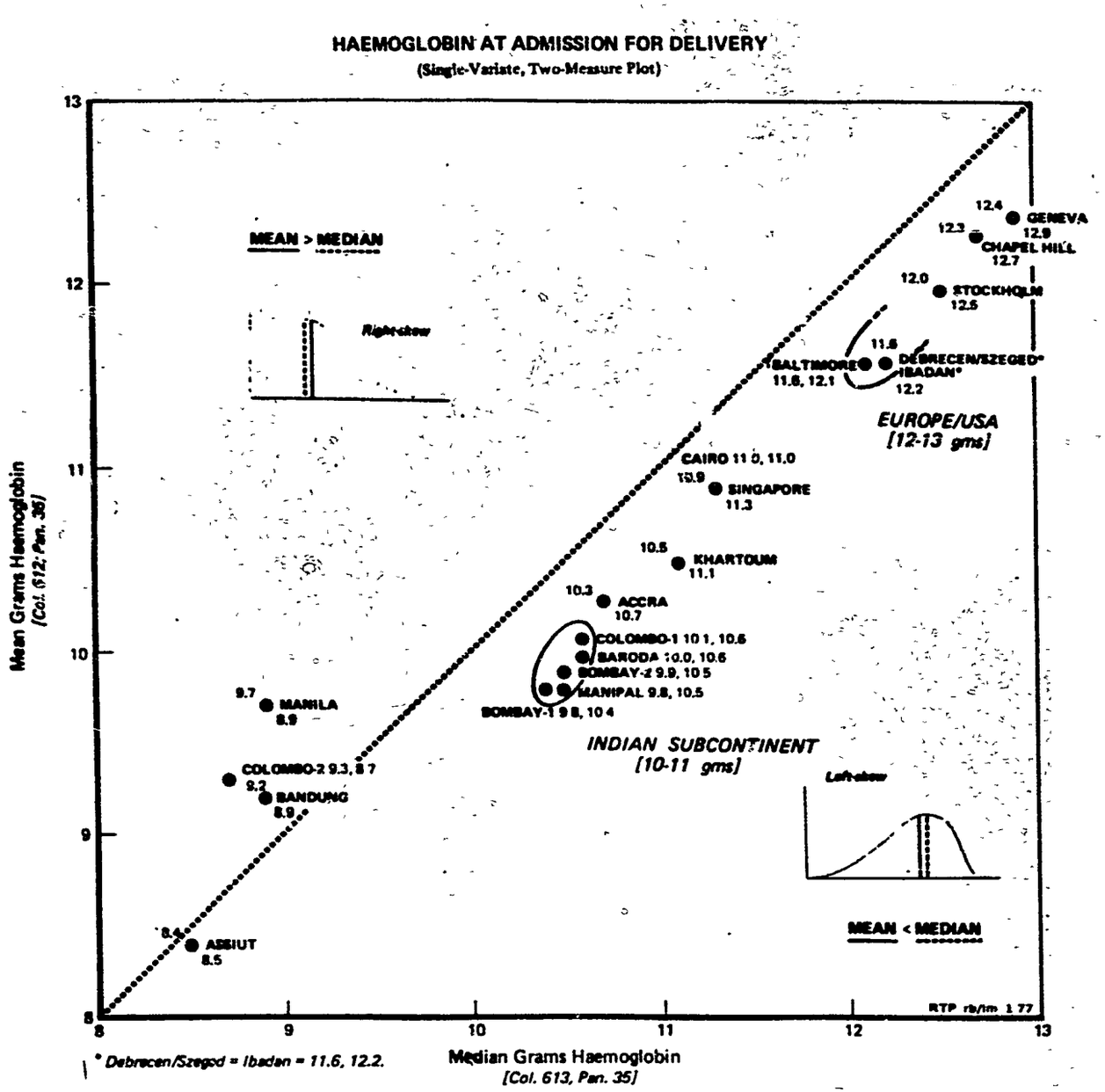

Figure 44. Charting of Two Different Measures of Central Tendency of HAEMOGLOBIN (HB) AT ADMISSION Enables Refined Ranking and Broad Cluster Classification in Addition to Identifying Samples of Special Interest.

For most samples, the mean is smaller than the median which thus points to a general pattern of left-skew distribution of haemoglobin. In sharp contrast, the samples with low values tend toward a right-skew distribution. The skewness of the distribution may point to possible causes leading to a given value of central tendency. Note the opposite skewness of the two Colombo samples with medians of 10.6 (left-skew) and 8.7 (right skew), respectively. Note also the two distinct clusters of samples from Europe/USA (median HB 12 - 13 gms) and the Indian subcontinent (median HB 10.4 - 10.7)

Thus the region effect on HB is one means of spotting major errors in recording, or identifying unexpected factors affecting levels of haemoglobin (see also Figure 69).

2.4.2 INTRAPARTUM

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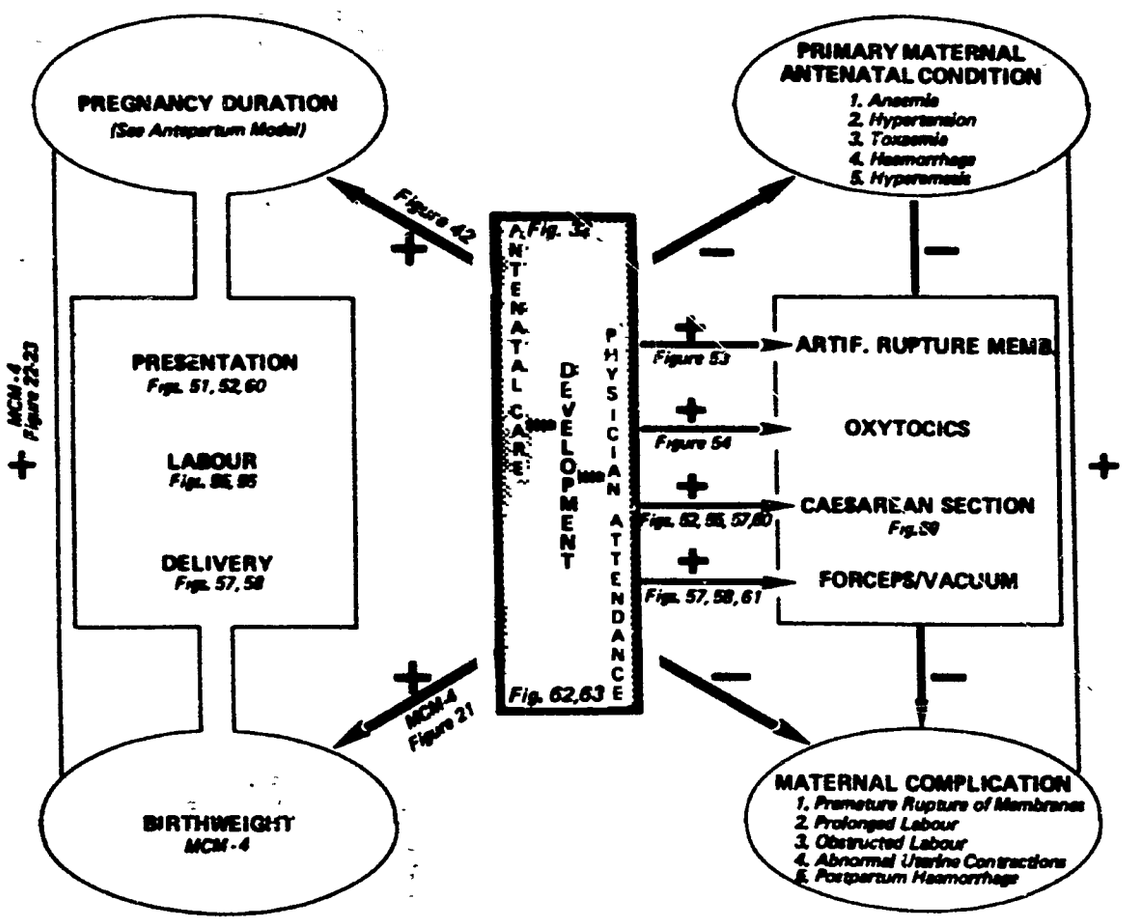
2.4.2 DEVELOPMENT EFFECTS INTRAPARTUM



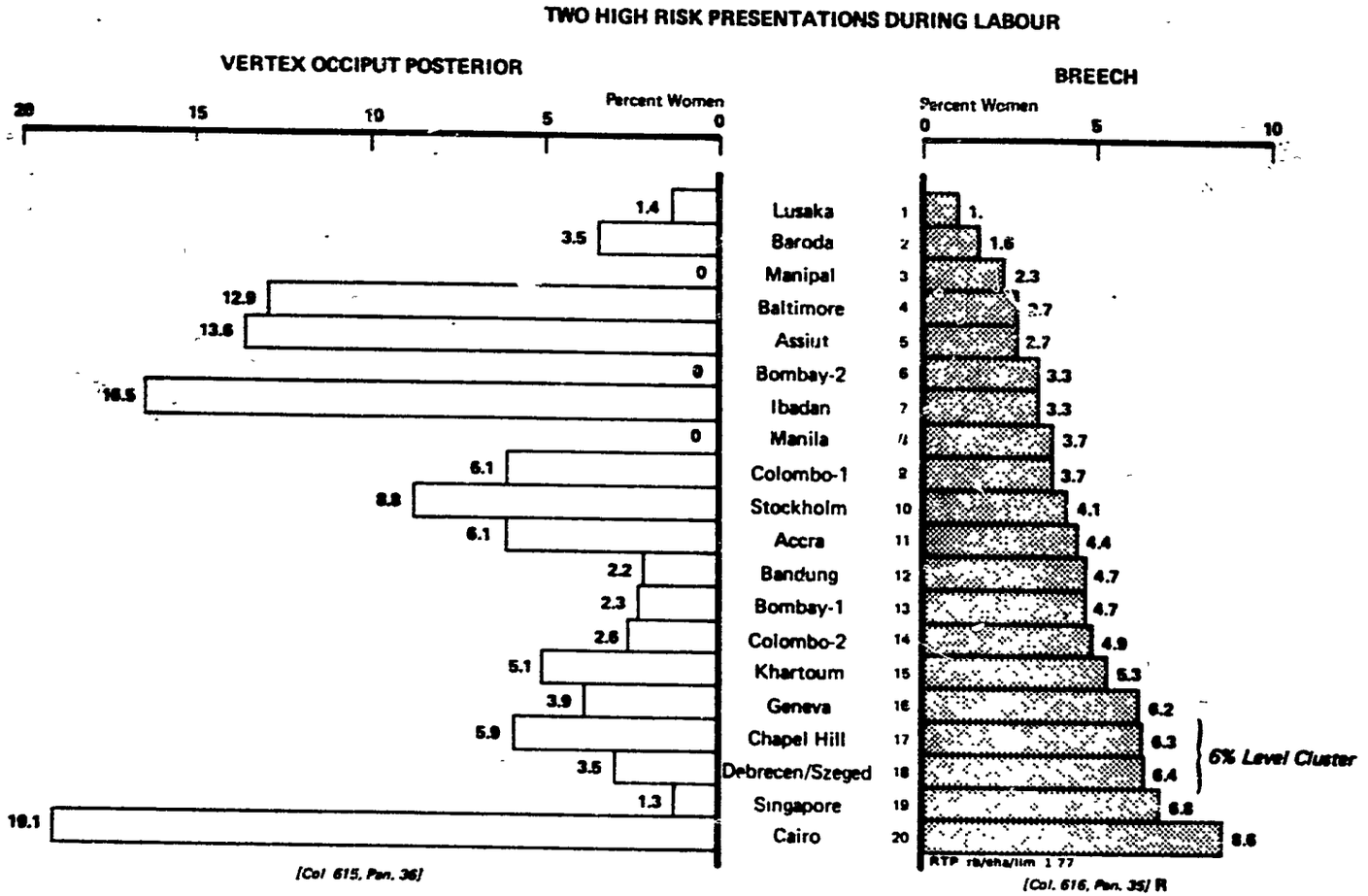


Figure 51. Ranking in Ascending Order of Percent Women with BREECH PRESENTATION during Labour (Right). Corresponding Percent Women with OCCIPUT POSTERIOR VERTEX PRESENTATION (Left).

Note the cluster of four developed country samples with a high rate of breech presentations (6 - 7%). Then compare the two extremes in this ranking sequence. The range of this pretest series for Vertex Occiput Posterior presentations (0 - 19.1%) is much greater than for the breech presentations (1.0 - 8.6%). Perhaps the high rate of O-P Vertex presentation (in Baltimore, Assiut, Ibadan and Cairo) is linked to conduction anaesthesia (epidural). Future analyses should also sort out the primigravida breech presentations. Given the relative rareness of these events and the great variation in hospital admission policy for delivery, ranking of the breech presentation at the various maternity wards participating in the Maternity Record pretest cannot possibly "reflect" the community pattern. However, this approach will be extremely meaningful when larger samples of consecutive deliveries (perhaps several thousand) are compared by place and time.

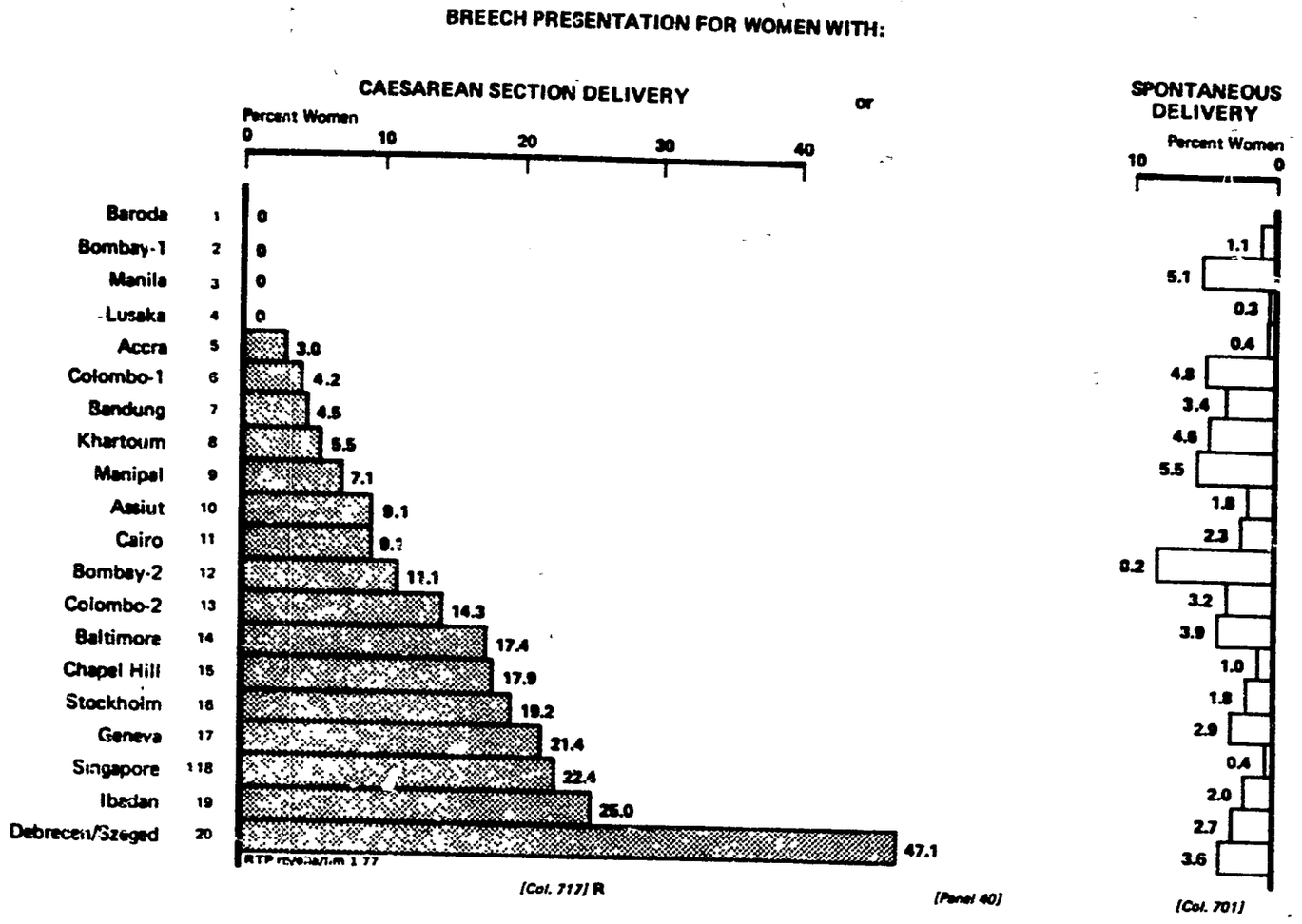


Figure 52. Ranking in Ascending Order of Percent BREECH PRESENTATION among ALL CAESAREAN SECTION DELIVERIES. Corresponding Values of Breech Presentation among ALL SPONTANEOUS DELIVERIES.

The share of breech presentations among the caesarean section deliveries ranges from 0 to 47.1% with a median share of 9.1% (Assiut/Cairo). The samples of the developed countries cluster at the high extreme of the continuum with a central value of around 20% (Stockholm/Geneva). Four of the 20 hospital samples (= 20%) had no breech presentations among the deliveries by caesarean section (Baroda/Bombay-1/Manila/Lusaka). Among the spontaneous deliveries, breech presentations ranged from 0.3% to 8.2% with a median value of 2.3% (Ibadan/Stockholm).

Note the development effect on management of breech by caesarean section. *(See also Figure 60 which gives "section rates" for women with breech presentation).*

ARTIFICIAL RUPTURE OF MEMBRANES FOR TWO REASONS

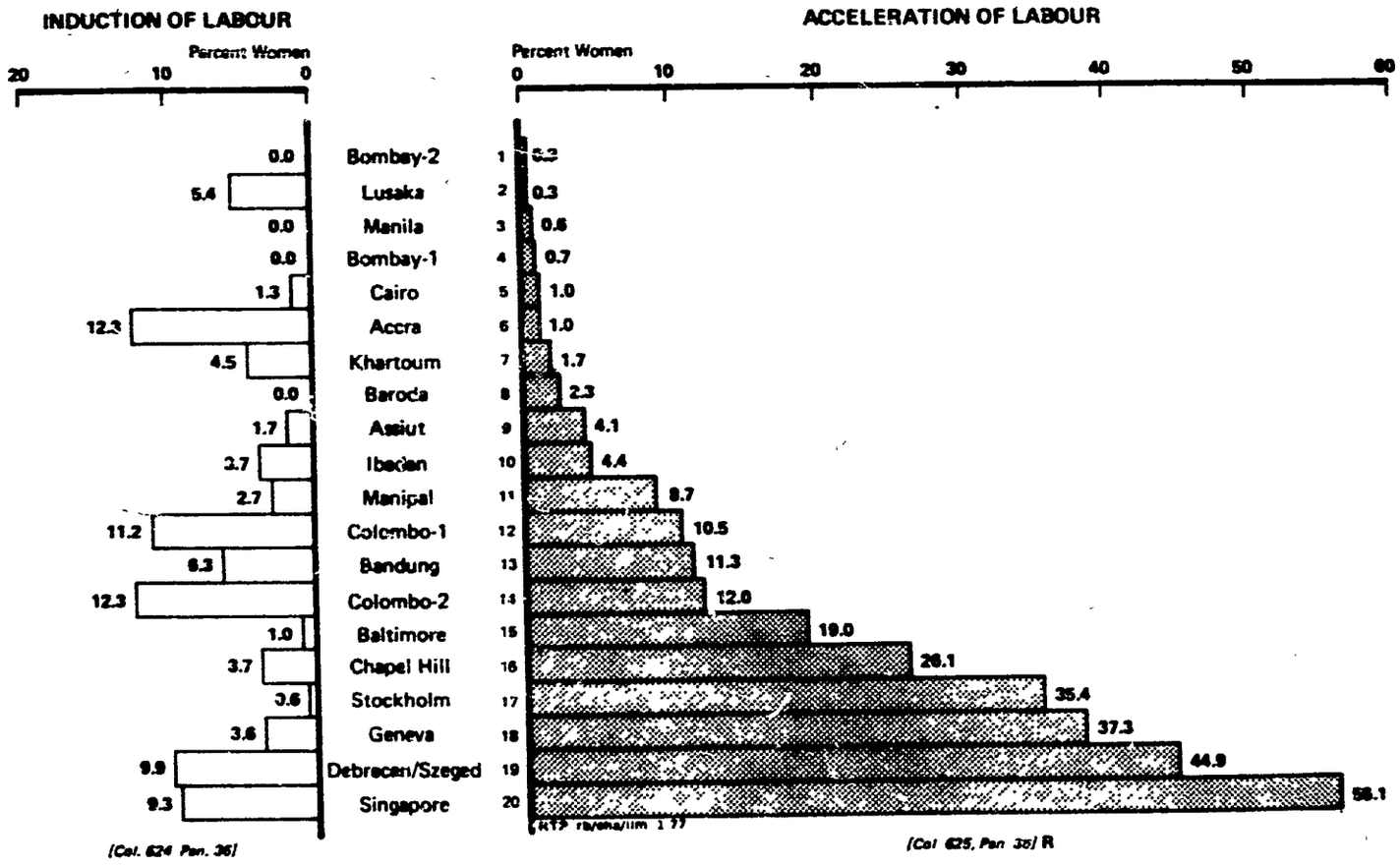


Figure 53. Ranking in Ascending Order of Percent Woman with ARTIFICIAL RUPTURE OF MEMBRANES (ARM) FOR ACCELERATION OF LABOUR (Right). Corresponding Percent Women with ARM for INDUCTION OF LABOUR (Left).

All developed country samples cluster at the high extreme of the ranking scheme with 20 - 60 percent women having undergone artificial rupture of the membranes for acceleration of labour. Four samples with ARM for acceleration of labour at the 10 percent level (8.7 - 12.0) including the two Colombo samples. The six African samples cluster at the 1 - 5 percent level. The two Bombay samples use virtually no ARM together with Manila and Lusaka (below 1%). Note also that within the described level ranges there is a "pictorial" correlation (shift) between the two reasons for artificial rupture of the membranes. This would suggest a strong element of intraclinical "school of thought" regarding the relative merit of artificial rupture of membranes in general. Inter-clinical dialogue may lead to less variation among places.

Note the development [physician attendance] effect on acceleration of labour (by artificial rupture). *(See also Figure 54).*

OXYTOCICS ADMINISTERED FOR TWO REASONS

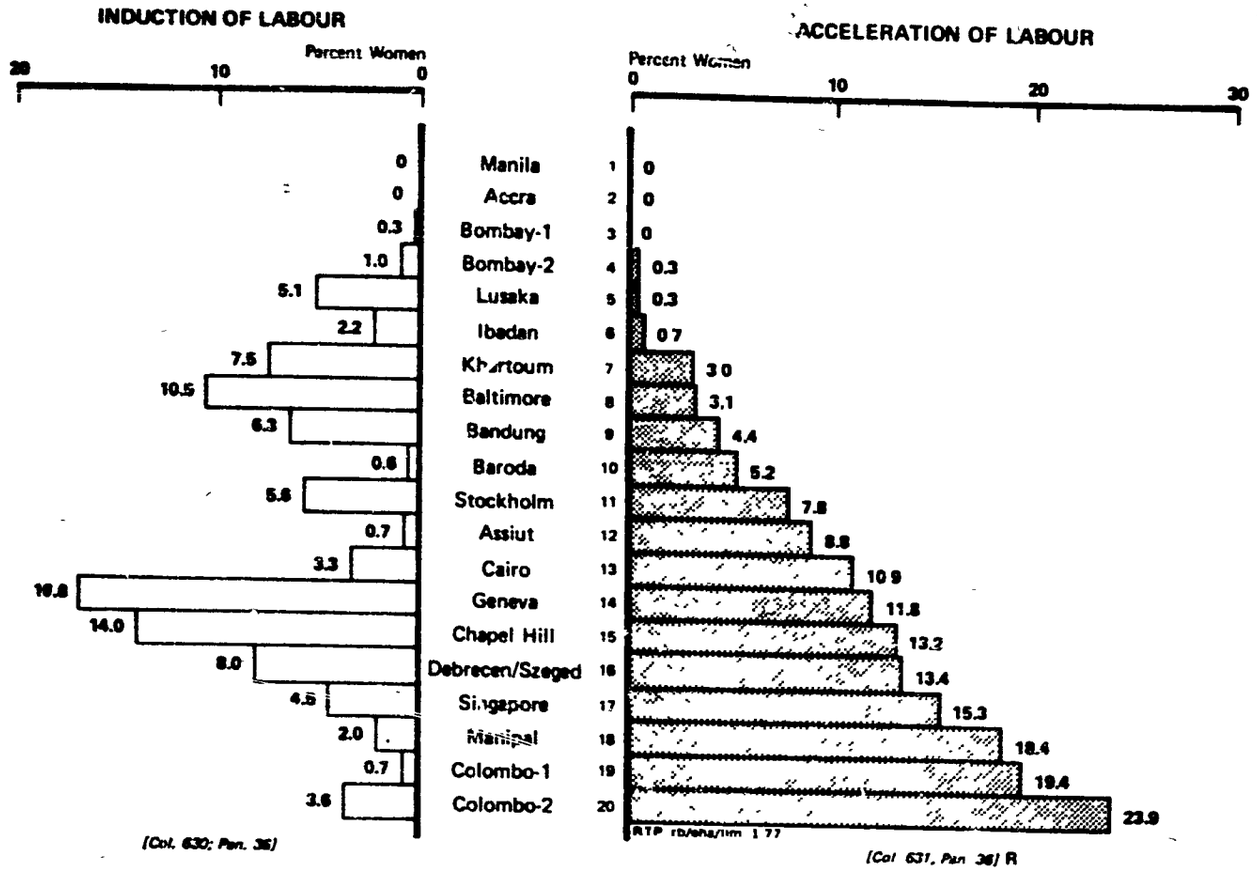


Figure 54. Ranking in Ascending Order of Percent Women with OXYTOCICS ADMINISTERED FOR ACCELERATION OF LABOUR (Right). Corresponding Percent Women Who Received OXYTOCICS for INDUCTION OF LABOUR (Left).

The highest rate of oxytocic administration for acceleration of labour is attained in Colombo and Manipal (around 20%; note in Figure 53 that the same samples had a 10% rate of artificial rupture of membranes) The second highest level is attained by four developed country samples (12 - 15%), followed by the two Egyptian samples (10%). In the African samples and those of Bombay and Manila oxytocics are rarely administered for the acceleration of labour (see Figure 53). A future routine analysis of management of labour should treat together both rupture of membranes and administration of oxytocics in order to study overlap and association.

Note the partial development effect [physician attendance] on acceleration of labour by oxytocic administration.

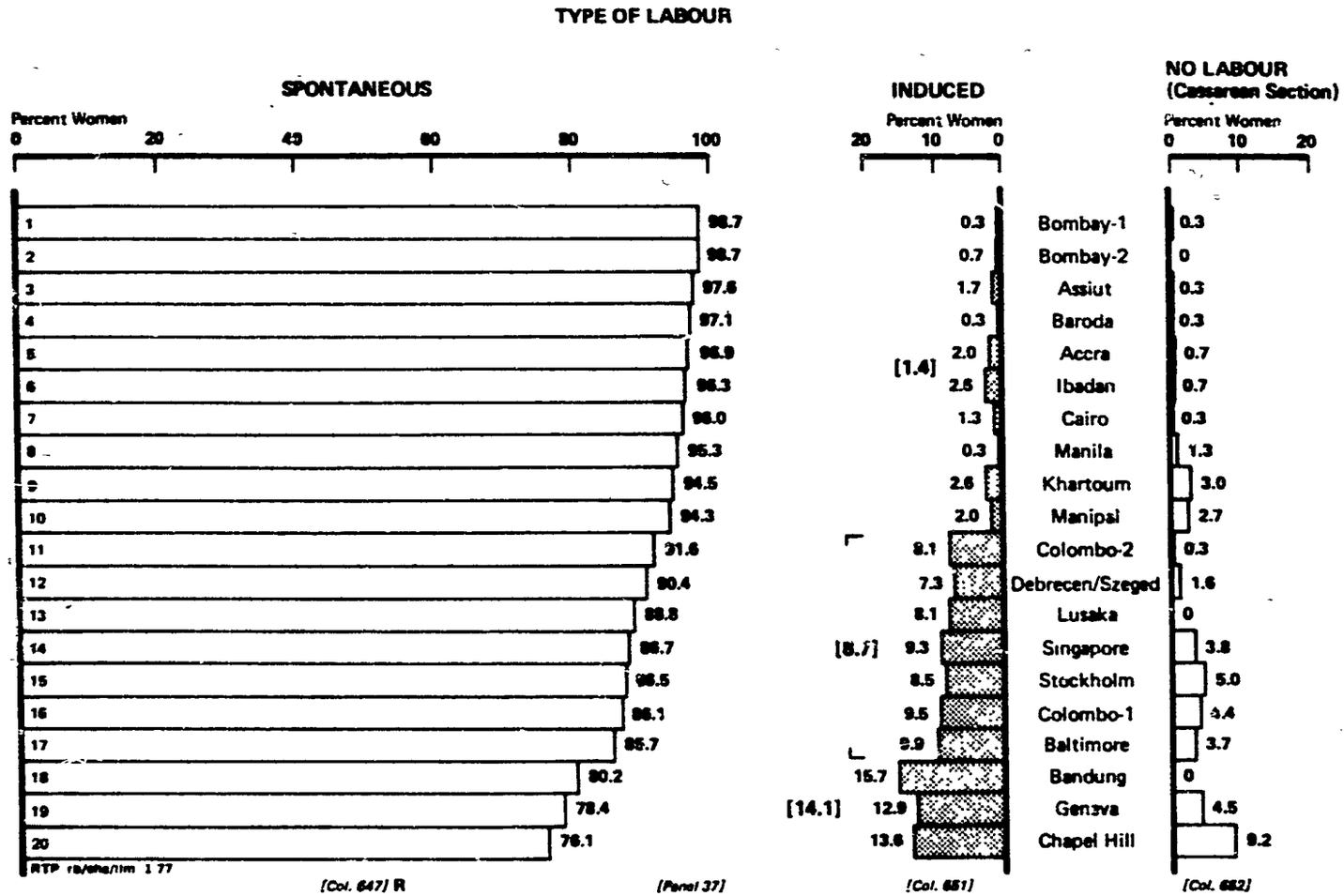


Figure 55. Ranking in Descending Order of Percent Women with SPONTANEOUS LABOUR (Left). Subsequent Dichotomy (Right) of Other Than Spontaneous Labour into INDUCED LABOUR and NO LABOUR WITH CAESAREAN SECTION. (The small residual of OTHER DELIVERIES [1.3% of pretest analysis with range from 0 - 4.2%] is not represented here).

In this low-frequency Maternity Record pretest, spontaneous labour ranges from 99% (Bombay-1, 2) down to 76% (Chapel Hill) with a median value of 93%. In this ranking scheme of spontaneous labour, three distinct levels of induced labour appear:

(1) Low level: range 0.3 - 2.6% [1.4]: All but one African and Indian samples

(2) Intermediate level: range 7.3 - 9.9% [8.7]: Most developed country samples, Sri Lanka and Lusaka

(3) High level: range 12.9 - 15.7% [14.1]: Chapel Hill, Geneva, Bandung.

In general, "no labour" caesarean sections are exceptional for low-level samples (median: 0.5%), and more frequent at the intermediate level (median: 3.7%). They reach 9.2% in the Chapel Hill sample. This chart would indicate the need for transclinical dialogue on labour induction in maternity wards.

In sum then note development [physician attendance] effect on induced labour and on no-labour caesarean section

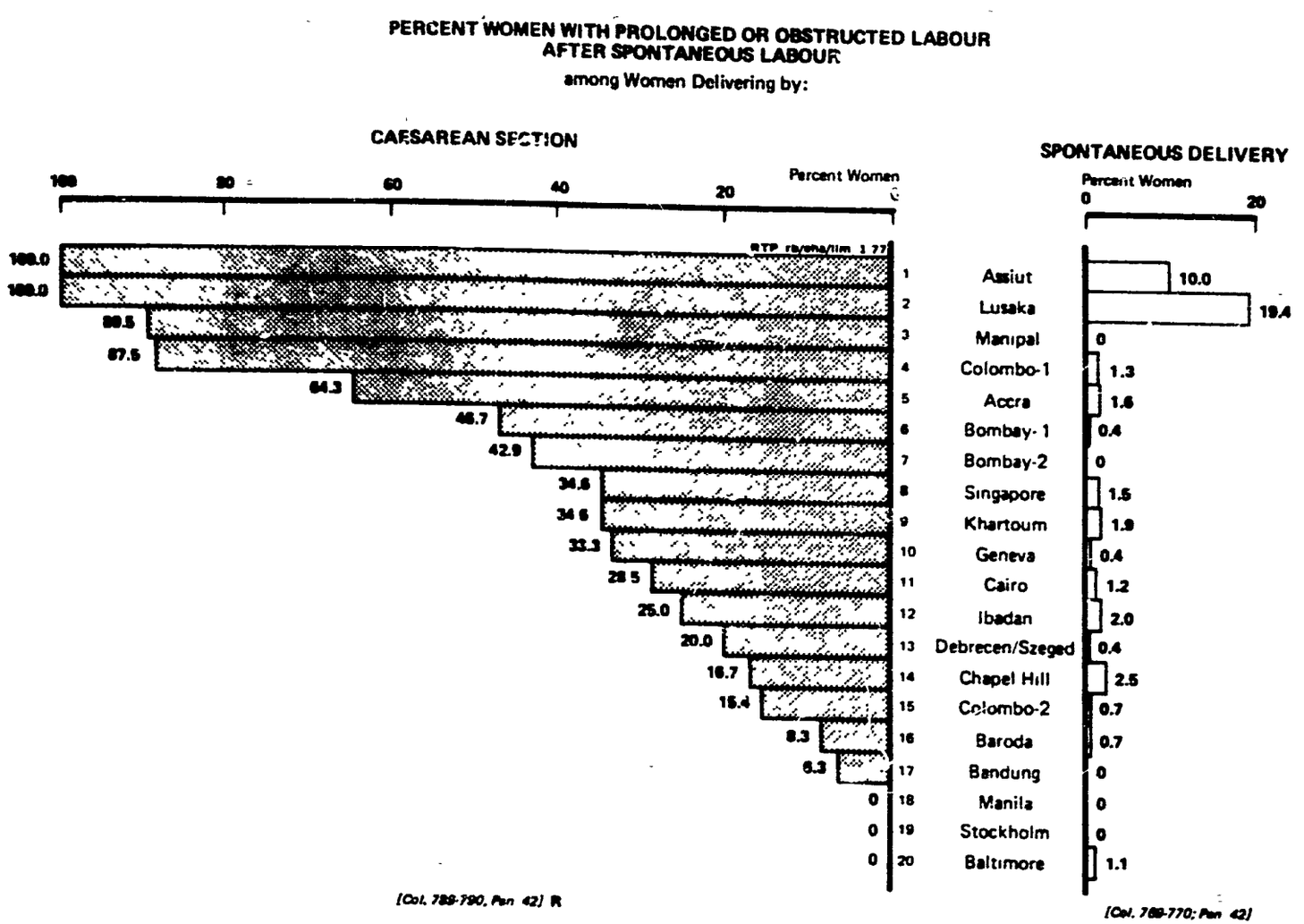


Figure 58. Ranking in Descending Order of Percent Women with **PROLONGED/OBSTRUCTED LABOUR** AFTER SPONTANEOUS LABOUR among Women that Were Delivered by CAESAREAN SECTION (Left). Corresponding Values for Women Whose Spontaneous Labour Progressed to SPONTANEOUS DELIVERY.

In three African studies (Assiut, Lusaka and Accra) and two Indian subcontinent studies (Manipal, Colombo-1) the most frequent reason for caesarean section delivery was Prolonged or Obstructed Labour (100.0 to 64.3%). By contrast, in Baltimore and Stockholm, prolonged or obstructed labour was not the reason for caesarean section among the women with spontaneous labour. Except for two African studies (Lusaka and Assiut) prolonged or obstructed labour constituted only two percent or less among the women with spontaneous labour leading to spontaneous delivery. Future routine analyses should derive rates of caesarean section or spontaneous delivery for women with prolonged or obstructed labour. The institutional continuum in this kind of data presentation will give insight into local criteria for use.

TYPE OF DELIVERY

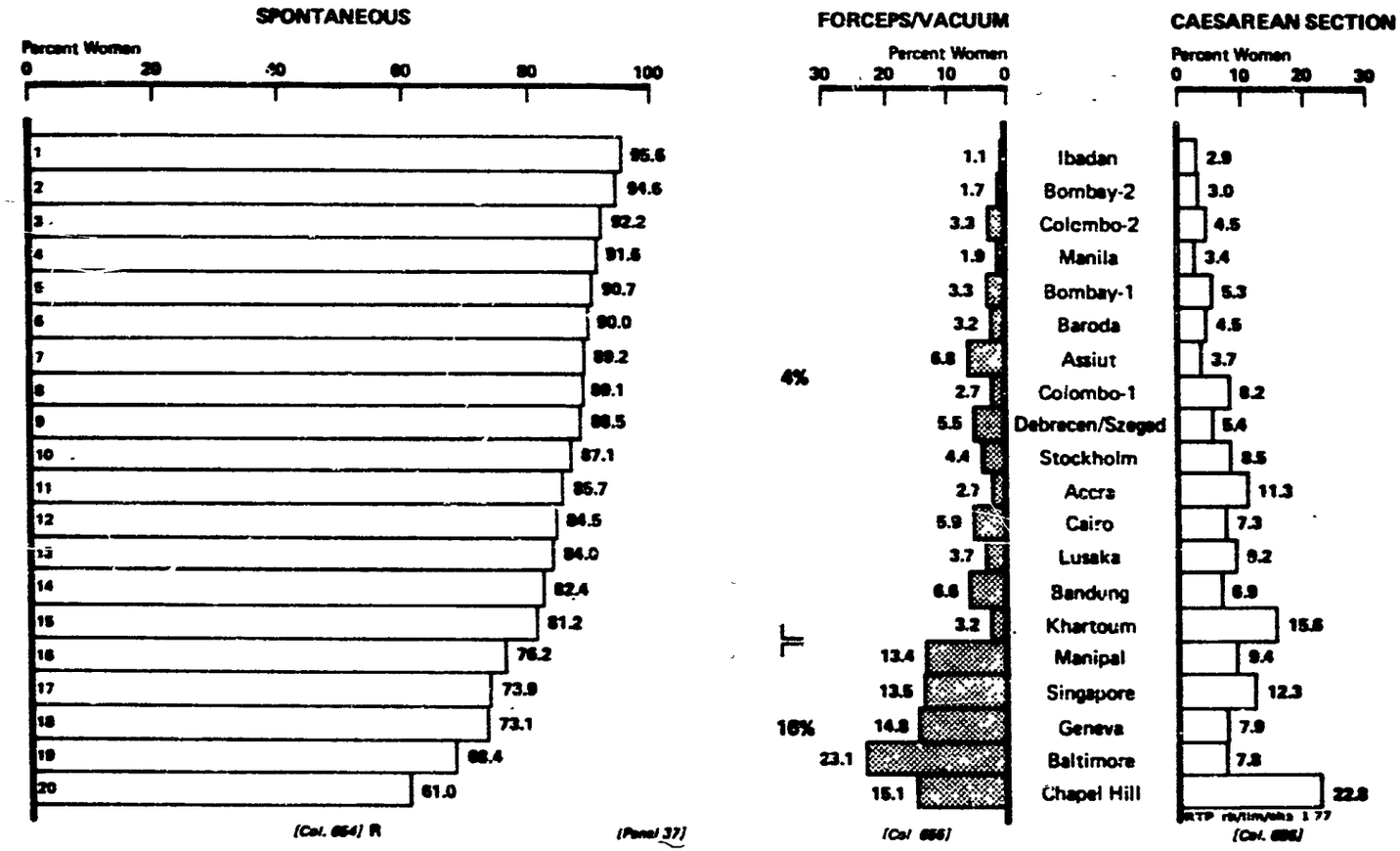


Figure 57. Ranking in Descending Order of Percent Women with SPONTANEOUS DELIVERY (Left). Subsequent Dichotomy (Right) of Other Than Spontaneous Deliveries into FORCEPS/VACUUM DELIVERIES and CAESAREAN SECTIONS.

In this low-frequency Maternity Record pretest, spontaneous delivery ranges from 95% (Ibadan) down to 61% (Chapel Hill) with a median value of 86.4%. The five samples (Chapel Hill, Baltimore, Geneva, Singapore and Manipal = 25% of the total pretest) with less than 80% spontaneous delivery are associated with a fourfold incidence of forceps/vacuum deliveries as compared with the remaining 75% of the pretest samples (the two averages being 16% versus 4% f/v deliveries: left side of tree). Twenty percent of the samples have more than 10% caesarean sections (Chapel Hill, Singapore, Khartoum and Accra) while another 20% have less than 4% (Manila, Bombay-2, Assiut and Ibadan). Note the higher section rates for Bombay-1 and Colombo-1 (University Clinics) as compared with Bombay-2 and Colombo-2.

In sum then note: development [physician attendance] effect on forceps/vacuum extraction.

TYPE OF DELIVERY AMONG SPONTANEOUS LABOUR WOMEN

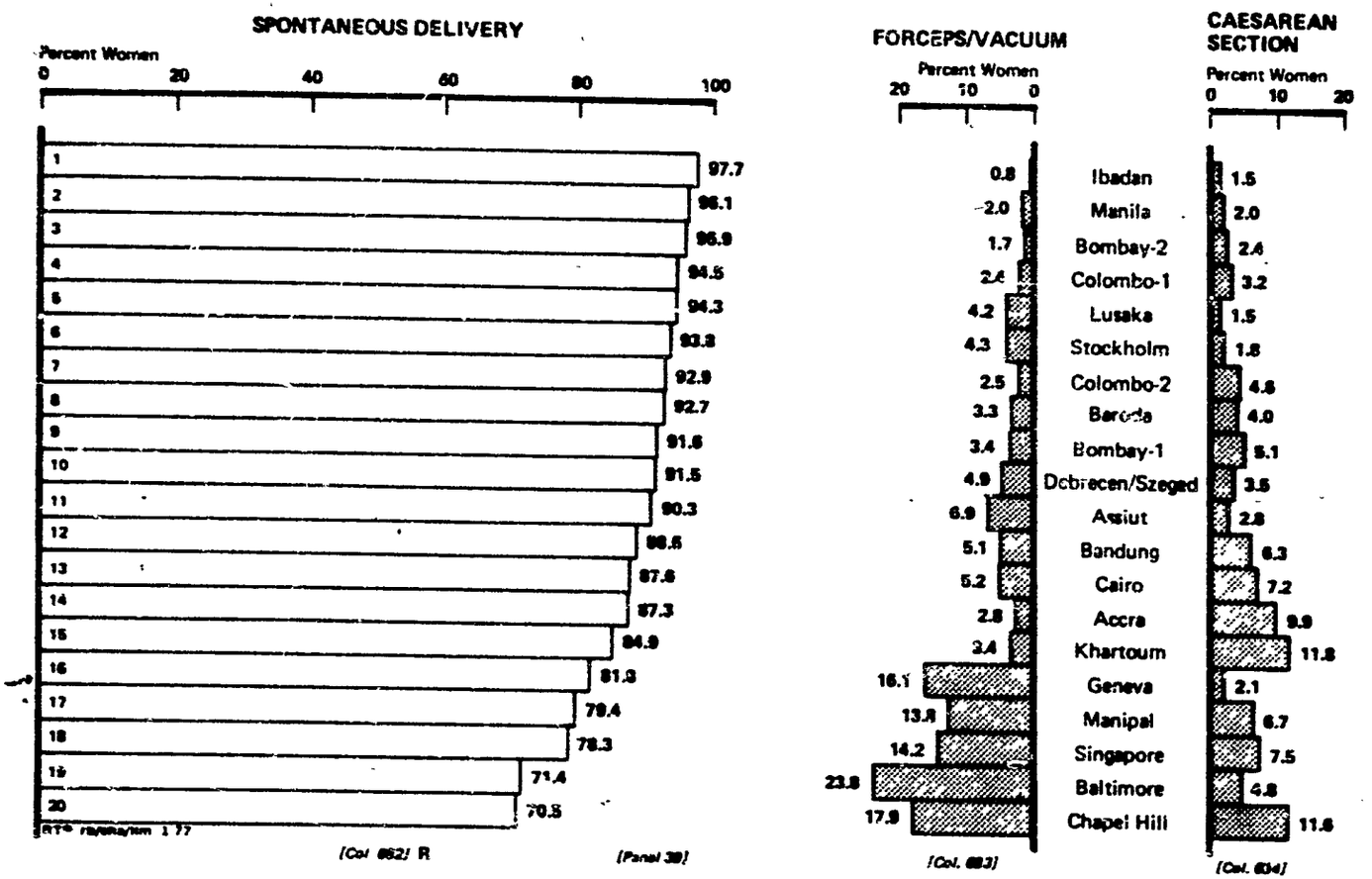


Figure 58. Ranking in Descending Order Among 'Spontaneous Labour Women' of SPONTANEOUS DELIVERY (Left). Subsequent Dichotomy (Right) of Other Than Spontaneous Deliveries into FORCEPS/VACUUM DELIVERIES AND CAESAREAN SECTION.

The information in this figure is quite similar to the information derived from Figure 57 (which is not restricted to women with spontaneous labour).

CAESAREAN SECTION BY TYPE OF LABOUR

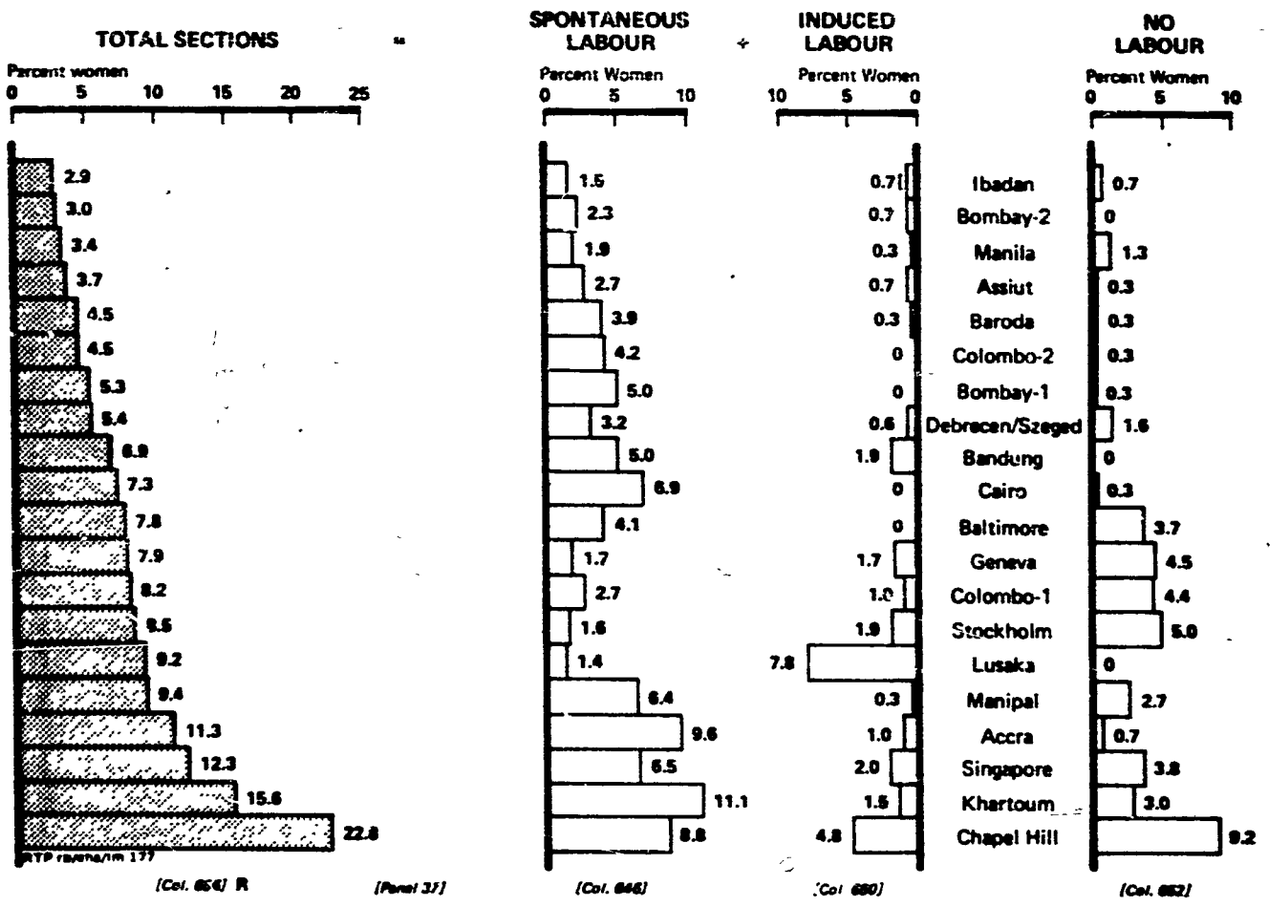


Figure 58. Ranking in Ascending Order of Percent Women with CAESAREAN SECTION (Left), Picked from Right Column of Figure 57. Corresponding Percent Shares by TYPE OF LABOUR are Given in Three Separate Columns (Right).

In this low-frequency Maternity Record pretest, caesarean section rates range from 2.9% (Ibadan) to 22.8% (Chapel Hill) with a median section rate of 7.6% of all recorded deliveries. For further detailed description see also Figure 57. Caesarean sections associated with spontaneous labour range from 1.4/1.5% (Lusaka and Ibadan) to 9.6/11.1% (Accra and Khartoum) with a median rate of 4.15% of all recorded deliveries. Caesarean sections associated with induced labour was highest for Lusaka and Chapel Hill (7.8 and 4.8%). Caesarean sections performed because of absence of labour were highest in developed country hospitals, including the Singapore and Manipal samples. This type of comparison by type of labour and place should enable the development of a classification of maternity hospitals by caesarean section levels. Diffusion of the results may lead to more unified indications for sections.

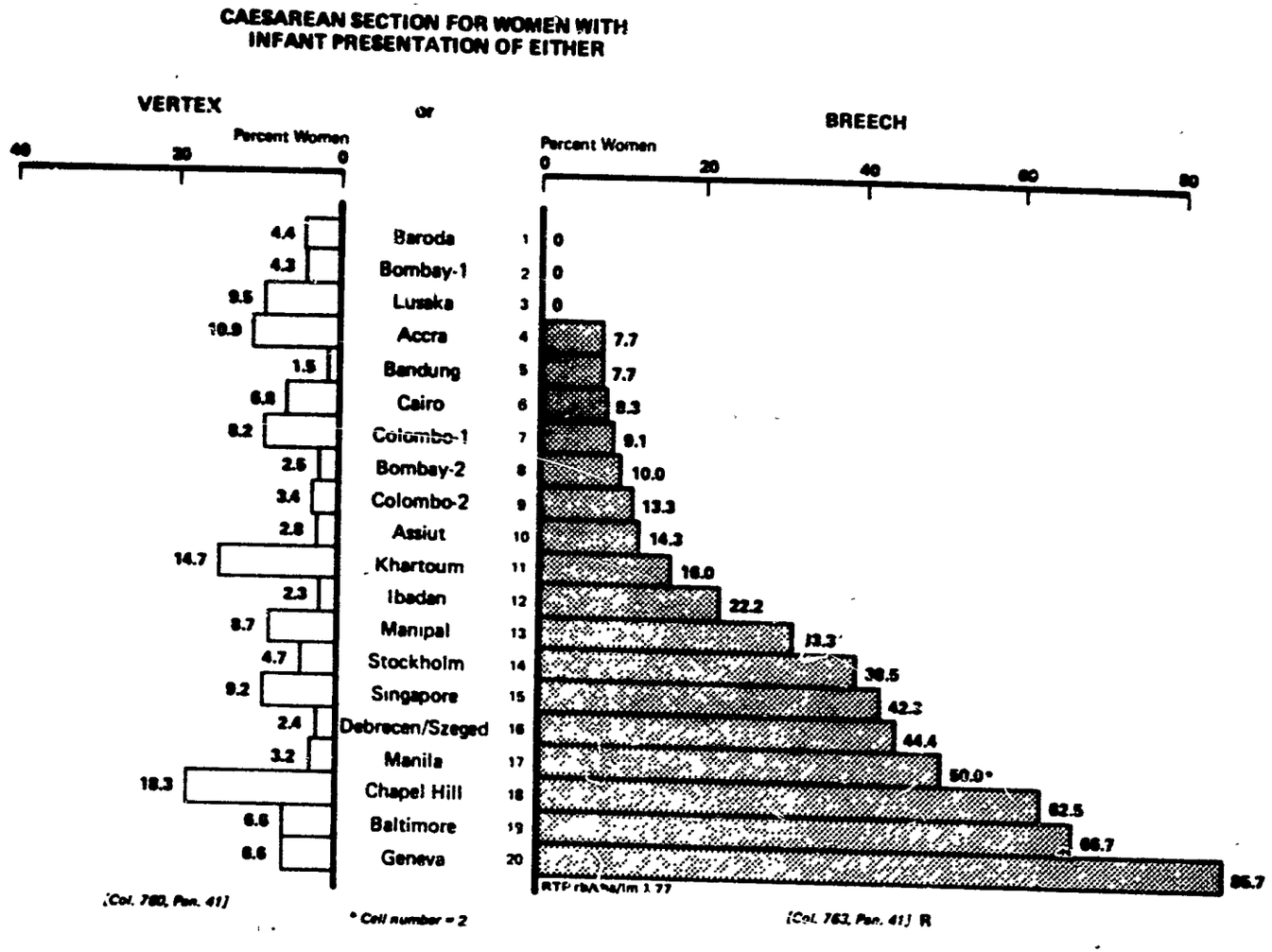


Figure 60. Ranking in Ascending Order of Percent Women with CAESAREAN SECTION among ALL BREECH PRESENTATIONS. Corresponding Values of Caesarean Sections among ALL VERTEX PRESENTATIONS.

The share of caesarean sections among all breech presentations ranges from zero to 85.7%, with a median share of around 15% (Assiut/Khartoum). The samples of the developed countries cluster at the high extreme of the continuum with a central value of around 50% (Debrecen-Szeged/Chapel Hill). Three of the 20 hospital samples (= 15%) had no caesarean sections among the breech presentations (Baroda/Bombay-1/Lusaka). Among all vertex presentations, caesarean sections ranged from 1.5% to 18.3% (Bandung vs Geneva), with a median value of around 5.0%. Prospective and continuous recording at the maternity ward should enable the routine calculation of the caesarean section rate by infant presentation. (See also Figure 54).

In sum then note: development [physician attendance] effect on caesarean section operation of breech presentation *(See also Figure 87 which gives infant outcome by presentation)*

FORCEPS/VACUUM DELIVERY AMONG WOMEN WITH SPONTANEOUS LABOUR AND VERTEX PRESENTATION OF THE INFANT

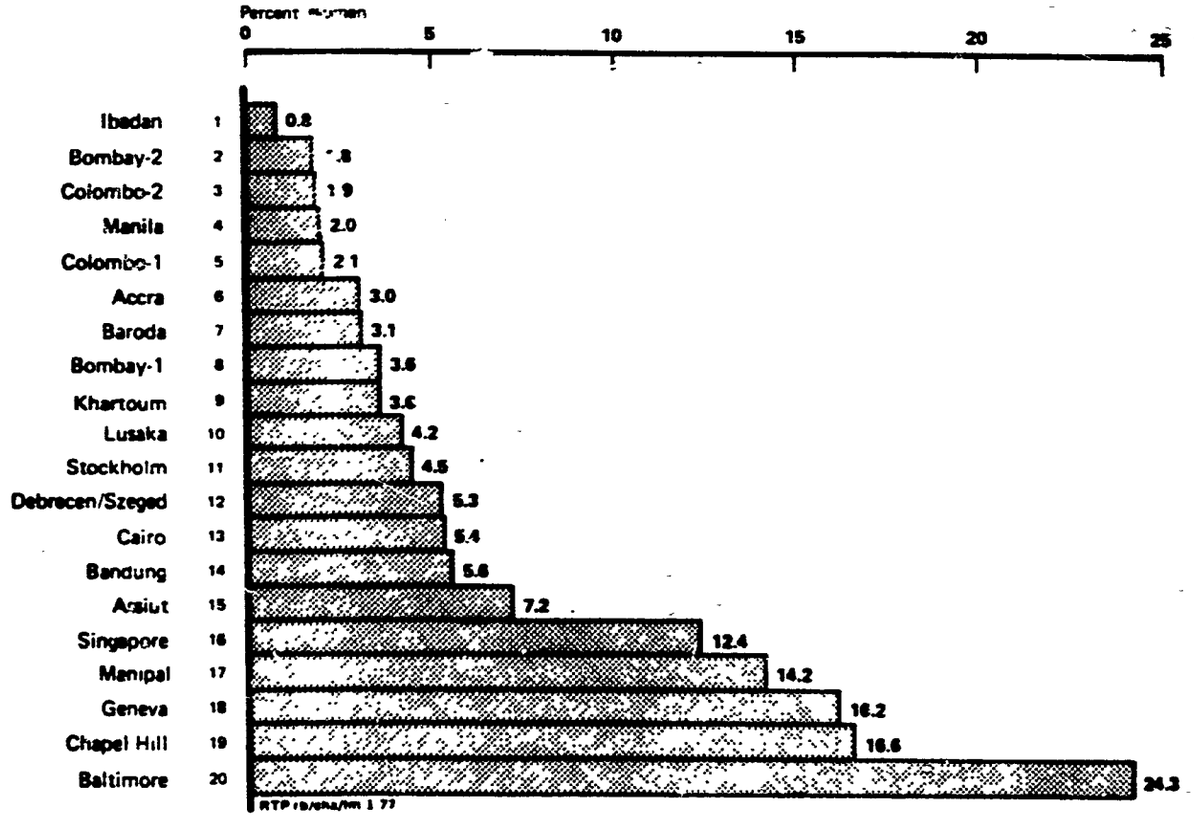


Figure 61. Ranking in Ascending Order of Percent Women with FORCEPS/VACUUM DELIVERY among All Single Birth VERTEX PRESENTATIONS with SPONTANEOUS LABOUR.

The share of forceps/vacuum deliveries among all vertex presentations in spontaneous labour ranges from 0.8% (Ibadan) to 24.3% (Baltimore). Rates are highest for the USA samples, followed by Geneva, Manipal and Singapore. Rates for the institutions in Sri Lanka are around 2.0%. Note the interesting intermediate position of Stockholm and Debrecen/Szeged which, however, are still among the upper fifty percentiles. With increasing numbers and continuous recording, the institutional likelihood of forceps/vacuum delivery may be established in the near future.

This is a development effect on forceps/vacuum extraction.

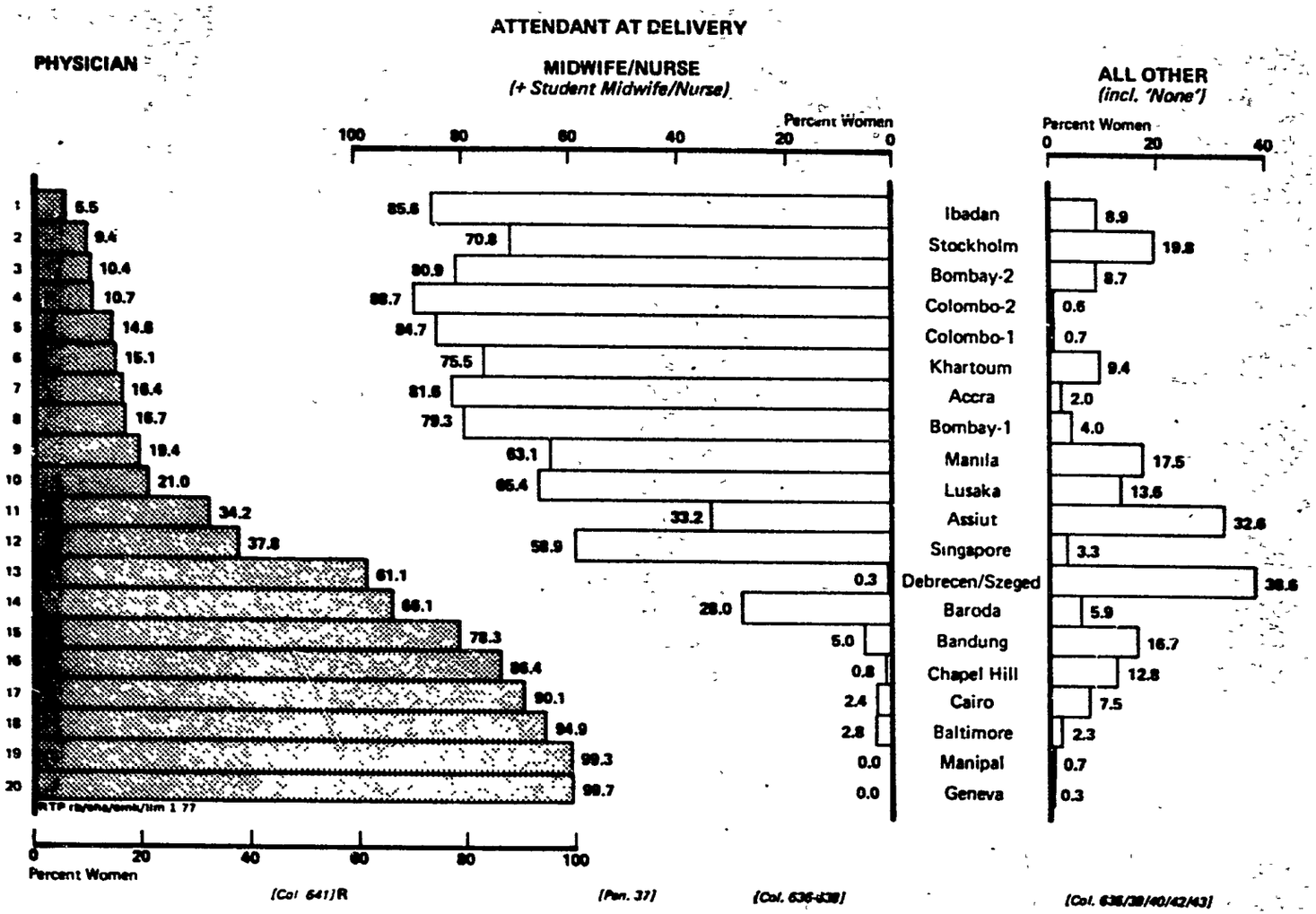
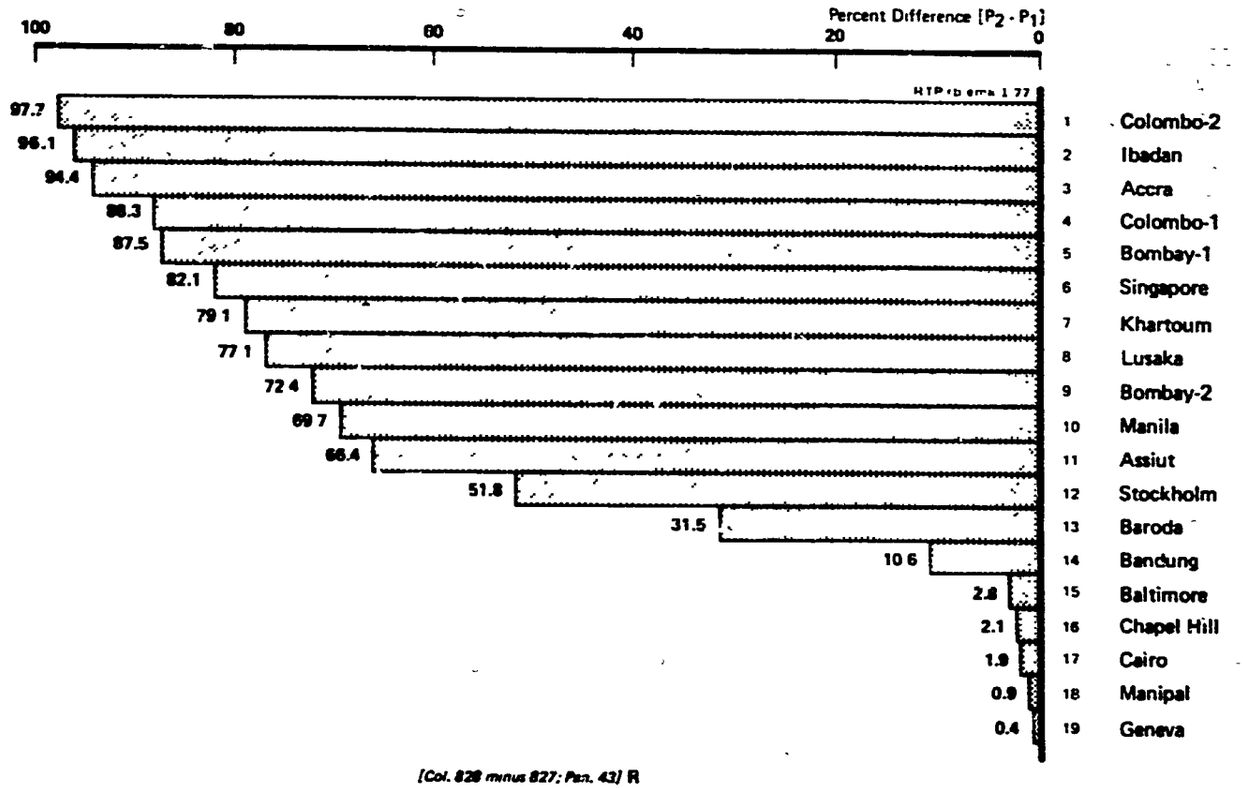


Figure 62. Ranking in Ascending Order of Percent Deliveries ATTENDED BY A PHYSICIAN (Left). Corresponding Values for Attendance by MIDWIFE/NURSE and ALL OTHER ATTENDANCE (Right).

The complementarity in delivery attendance between midwife/nurse and physician does not evolve along a smooth sequence of national development. In Stockholm only 10 percent of the deliveries were attended by a physician, against 80 percent in Bandung, 90 percent in Cairo and 100 percent in Manipal. In 10 out of the 20 studies, including most studies from Africa and many from Asia, physician attendance ranged between only 5.5 and 21 percent. Note the double contrast in attendance by a physician for rank orders 1, 2 (Ibadan, Stockholm) and 19, 20 (Manipal, Geneva). Such comparisons would indicate the need for national as well as international interclinical dialogue toward optimization of midwife/nurse attendance at delivery in both developing and developed countries.

In short, note a strong positive development effect on physician attendance at delivery.

SHIFT IN PHYSICIAN ATTENDANCE OF WOMEN WITH SPONTANEOUS LABOUR, FROM SPONTANEOUS DELIVERY TO FORCEPS/VACUUM/CAESAREAN DELIVERY



[Col. 828 minus 827; Pan. 43] R

Figure 63. Ranking in Descending Order of the Samples According to the PERCENT DIFFERENCE in PHYSICIAN ATTENDANCE of [Forceps/Vacuum and Caesarean Section Deliveries] (P_2) and Spontaneous Deliveries (P_1).

The interclinical profile of the ranking pattern for the difference in physician attendance would indicate that many institutions in developing countries know to switch from midwife/nurse to physician attendance for deliveries requiring extraction by vaginal or abdominal route. The shift is nearly 100 percent for Ibadan and Accra, indicating that routine deliveries are handled by personnel other than physicians. In most developed country samples the difference is negligible indicating that virtually all spontaneous deliveries are attended by physicians. Note the interesting exceptions in Stockholm and in Singapore. (For methodology see also Figures 37 and 43).

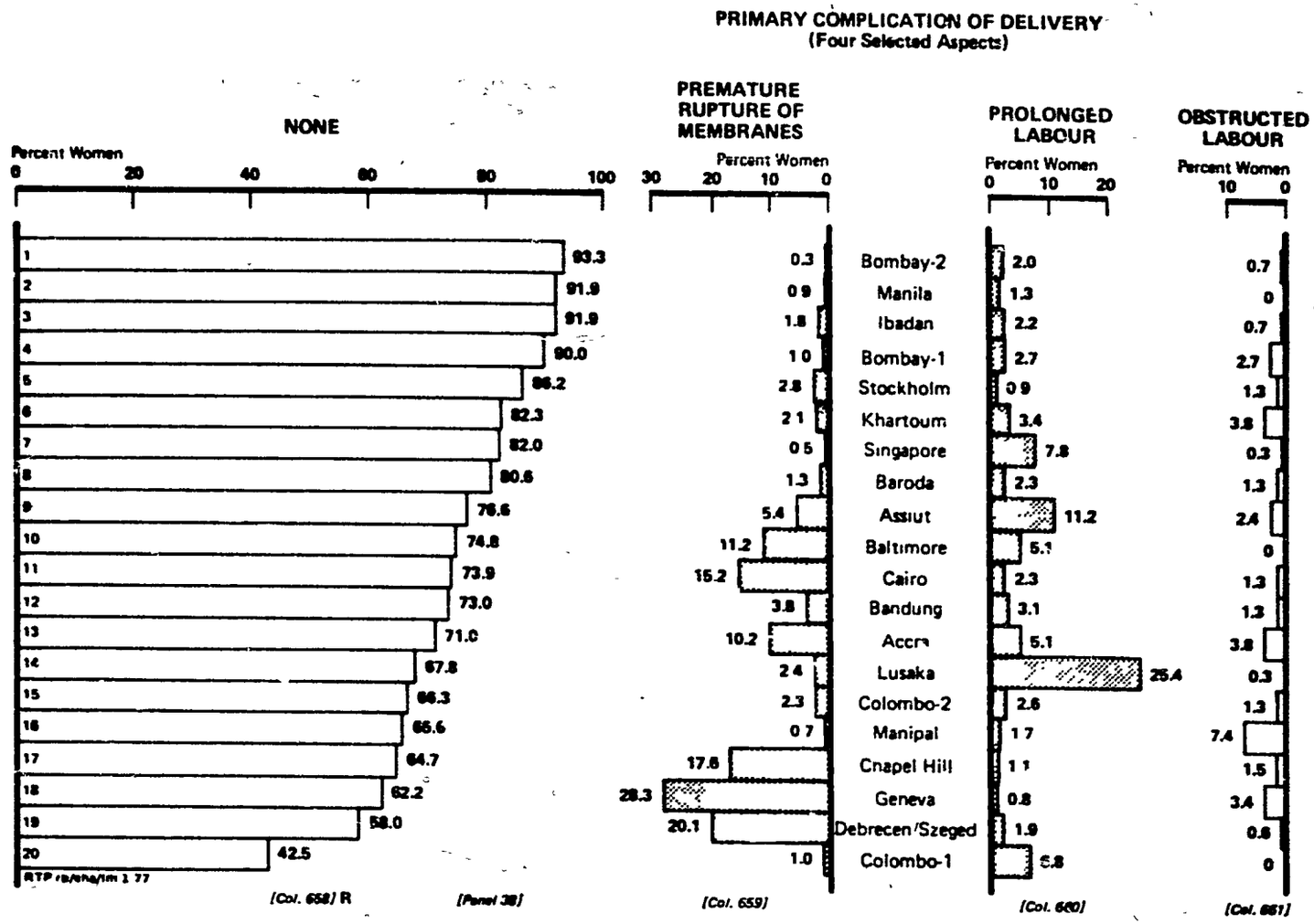


Figure 64. Ranking in Ascending Order of Women with NO PRIMARY COMPLICATION AT DELIVERY (Left). Corresponding Percentages of Women with one of the Three Most Frequent Primary Complications at Delivery, i.e. (1) Premature Rupture of Membranes, (2) Prolonged Labour, and (3) Obstructed Labour (Right). For Postpartum Haemorrhage/Retained Placenta see Figure 69, Right Column.

Recorded primary complications of delivery (in this first pretest of the Maternity Record with twenty samples) range from 6.7 - 57.5% with a median value of 25.65%. Three samples from developed countries cluster at the higher end of the complication continuum (Debrecen/Szeged, Geneva, Chapel Hill). They also exhibit the greatest share in premature rupture of the membranes (17.6 - 28.3%). The pretest ranges for four primary complications and the median are.

	Range	Median
Premature Rupture of Membranes:	*0.3–28.3*	2.35%
Prolonged Labour	*0.8–25.4*	2.45%
Obstructed Labour	*0.0–7.4*	1.3%
Postpartum Haemorrhage/Retained Placenta	*0.0–4.0*	1.6%

Calculation of "regional medians" may be helpful for the preparation of a series of successive world views of maternity care management.

PRIMARY COMPLICATION OF AND ATTENDANCE AT DELIVERY FOR WOMEN WITH NORMAL POSTPARTUM MATERNAL STATUS

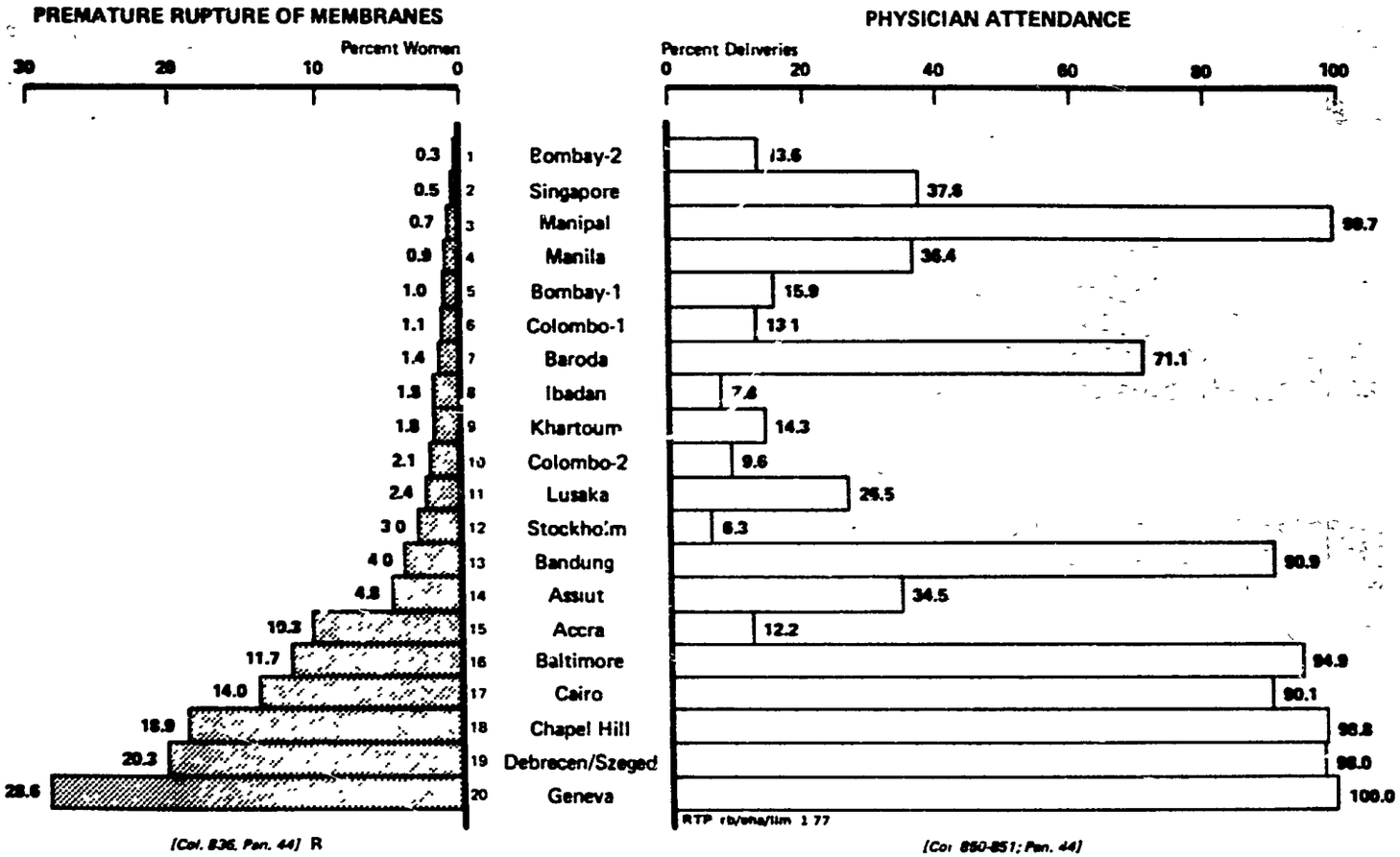


Figure 65. Ranking in Ascending Order of Percent Women with PREMATURE RUPTURE OF MEMBRANES among all Women with NORMAL POSTPARTUM MATERNAL STATUS (Left). Corresponding Percent Deliveries with PHYSICIAN ATTENDANCE (Right).

In these samples restricted to women with normal postpartum maternal status, the generally most common primary complication of delivery ranges from 0.3% to 28.6%, with a median of 2.3%. Most developed country samples cluster at the high extreme (Geneva, Debrecen/Szeged, Chapel Hill, Baltimore) whereas the Indian subcontinent and African samples show a low rate of premature rupture of membranes. The percentage of deliveries attended by a physician is given on the right for documentation.

This can be formulated as a development [physician attendance] effect on premature rupture of membranes.

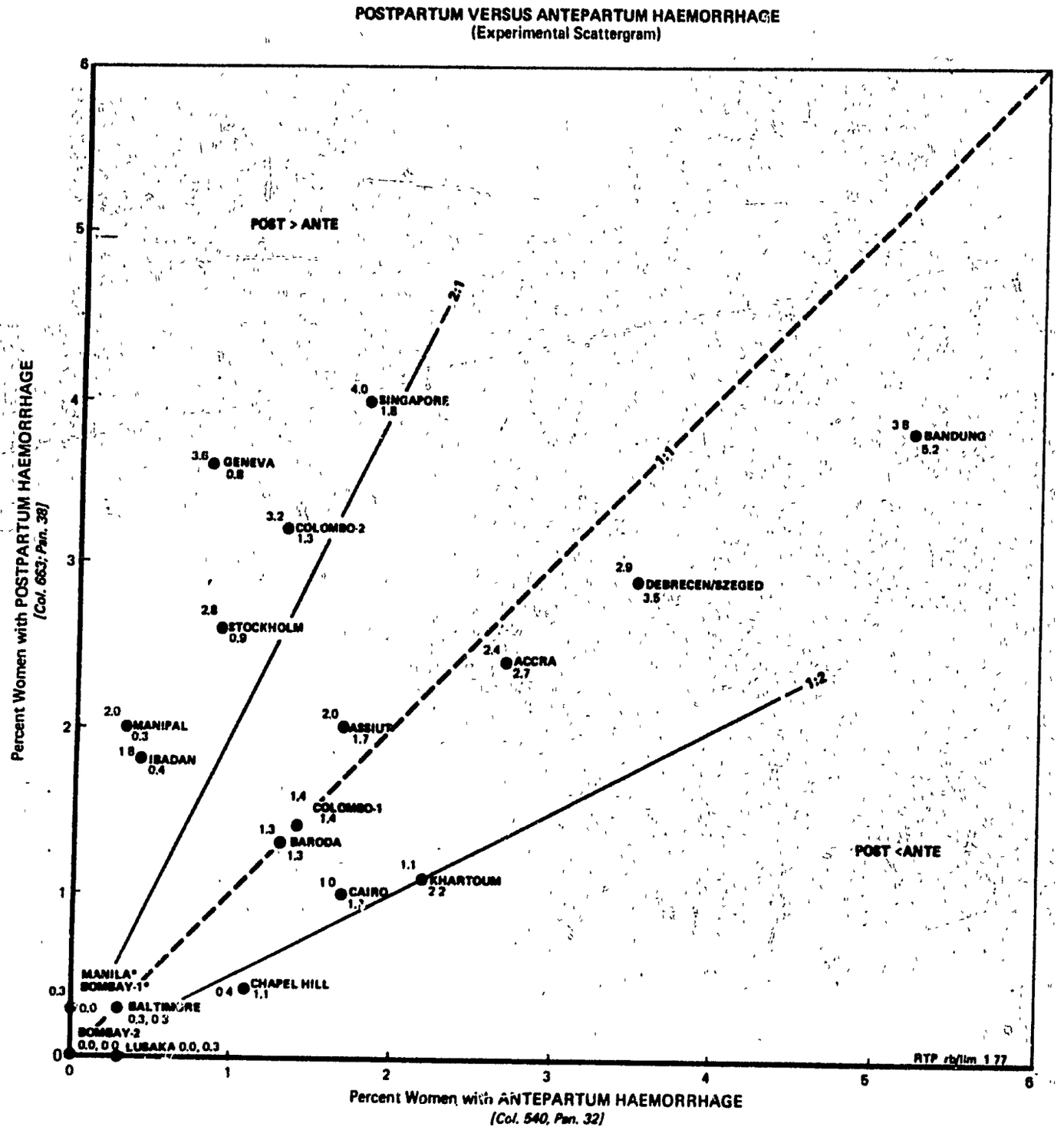


Figure 66. Experimental Time-Scattergram of Haemorrhage Pertaining to Delivery.

While in this Pretest of the Maternity Record both small sample size and rareness of events preclude (geographic) meaningfulness of the scatter, the technique will acquire a high degree of indication as soon as larger samples of continuously recorded deliveries are to be examined for haemorrhage. The present scatter shows two correlation axes aside from an interesting cluster of samples with virtual absence of (recorded) haemorrhage both before and after delivery. The technique will also enable quality control aside from its inherent potential for classification of centers regarding both nature of obstetrical clientele and management of delivery per se.

** Manila = Bombay-1 = 0.3, 0.0*

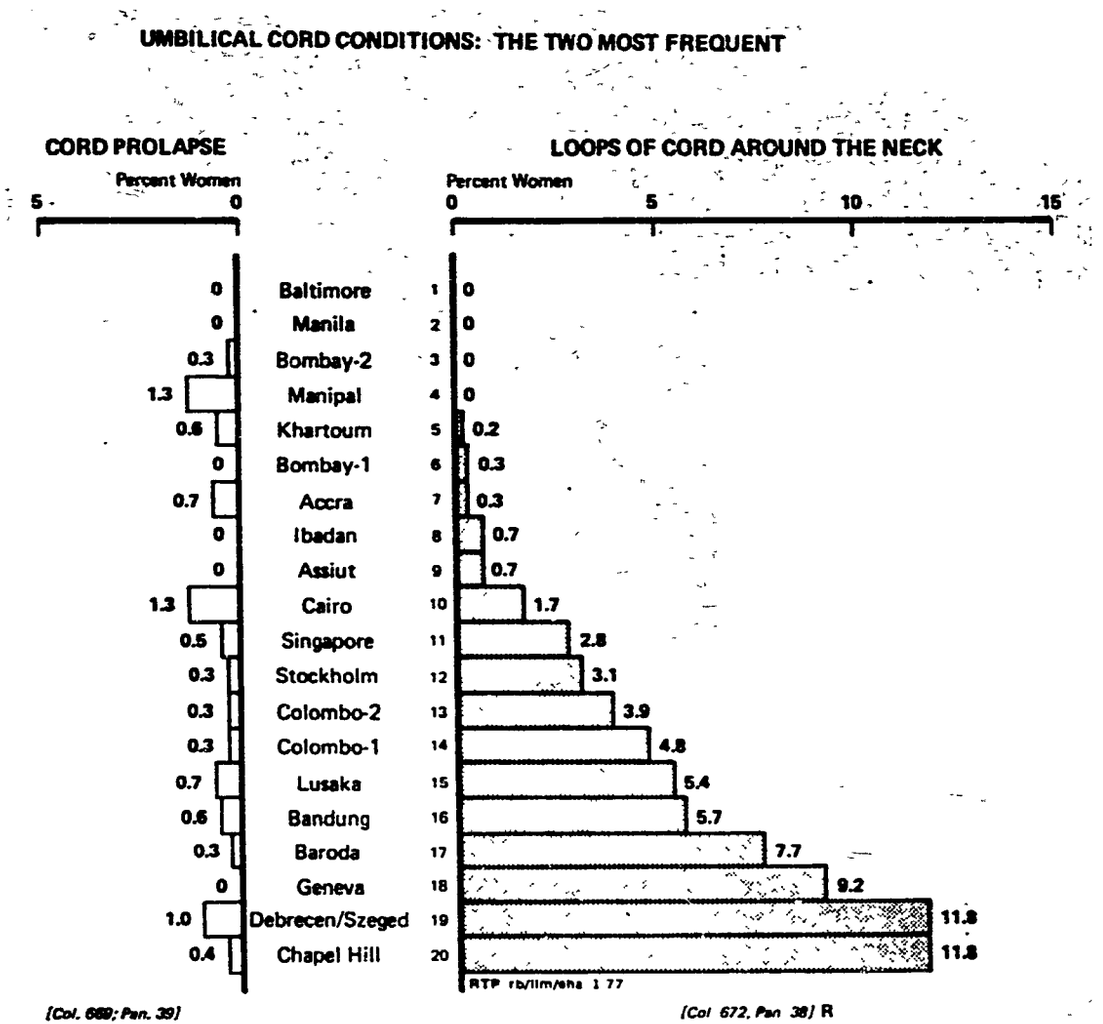


Figure 67. Study of the Two Umbilical Cord Conditions Appearing in the Greatest Number of the Twenty Pretest Samples (1) Loops Around the Neck (16/20 Times), (2) Cord Prolapse (14/20 Times); in Third Position is Long Cord (10/20 Times). See also Panel 38. Ranking in Ascending Order of the Percent Women with LOOPS AROUND THE NECK of the Baby (Right). Corresponding Values of CORD PROLAPSE (Left).

Recorded loops around the neck range from 0 to 11.8%, with a median value of 2.25%. Three developed country samples cluster at the higher end of the continuum (Chapel Hill, Debrecen/Szeged and Geneva). This variable may be used for quality control of conscientious recording and study of cord condition by ethnicity.

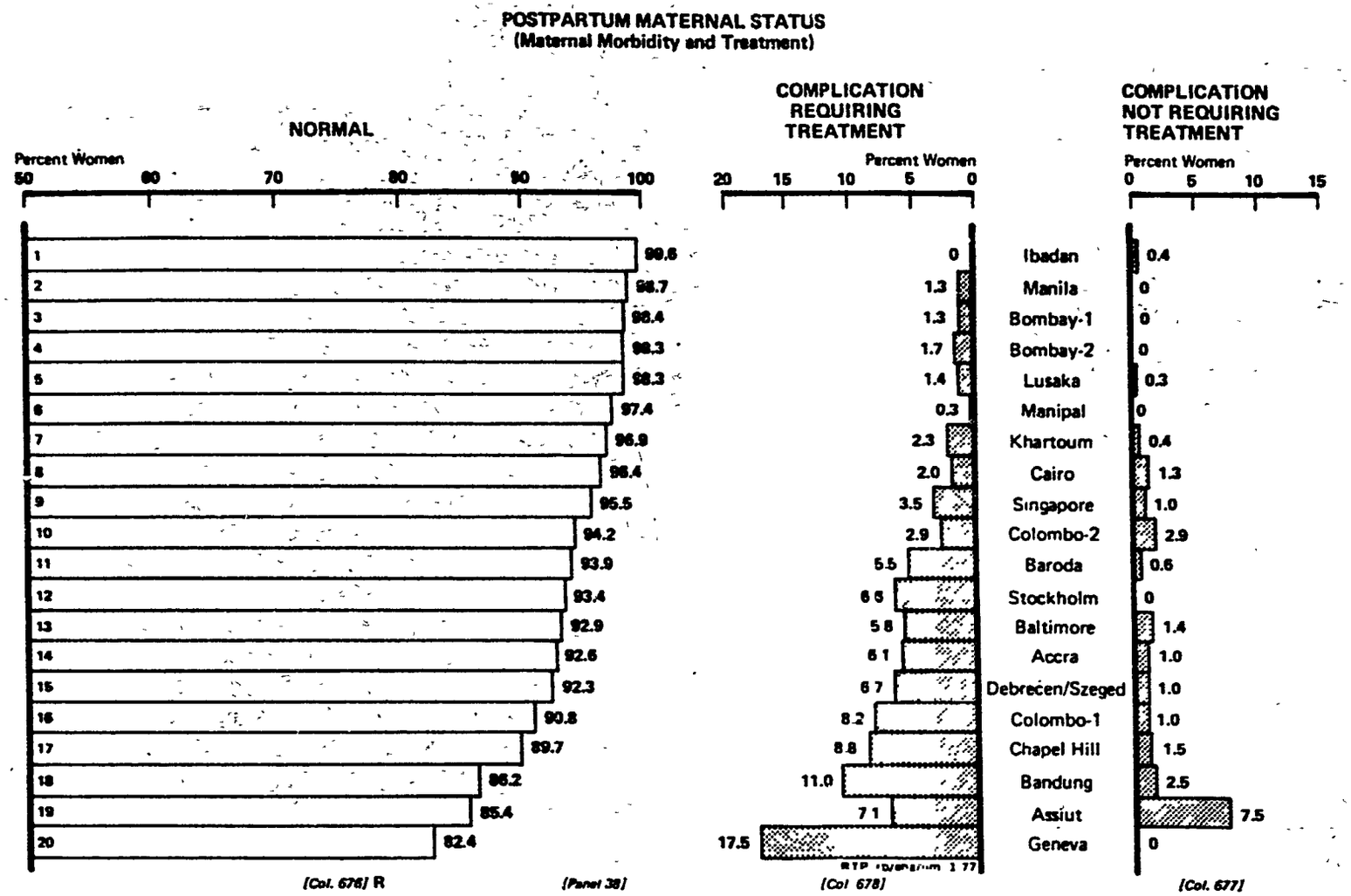


Figure 68. Ranking in Descending Order of Percent Women with NO MORBIDITY AFTER DELIVERY (Left). Corresponding Morbidity Figures, Distinguishing COMPLICATIONS WITH AND WITHOUT TREATMENT (Right).

In this Maternity Record pretest, the recorded uncomplicated postpartum maternal status among the twenty hospital samples ranged from 99.6% to 82.4%. Hence the perceived complications ranged from 0.4% to 17.6% with a median of 6.0%. In general, samples from developed countries tend to cluster at the higher end of the complication continuum, which raises questions pertaining to recognition and recording of complications in general. In most samples, however, complications requiring treatment take the lion's share

MATERNAL BLOOD TRANSFUSION DURING HOSPITALISATION FOR DELIVERY

also: Haemoglobin at Admission for Delivery
Antepartum Haemorrhage recorded as Primary Antenatal Condition
Postpartum Haemorrhage recorded as Primary Complication of Delivery

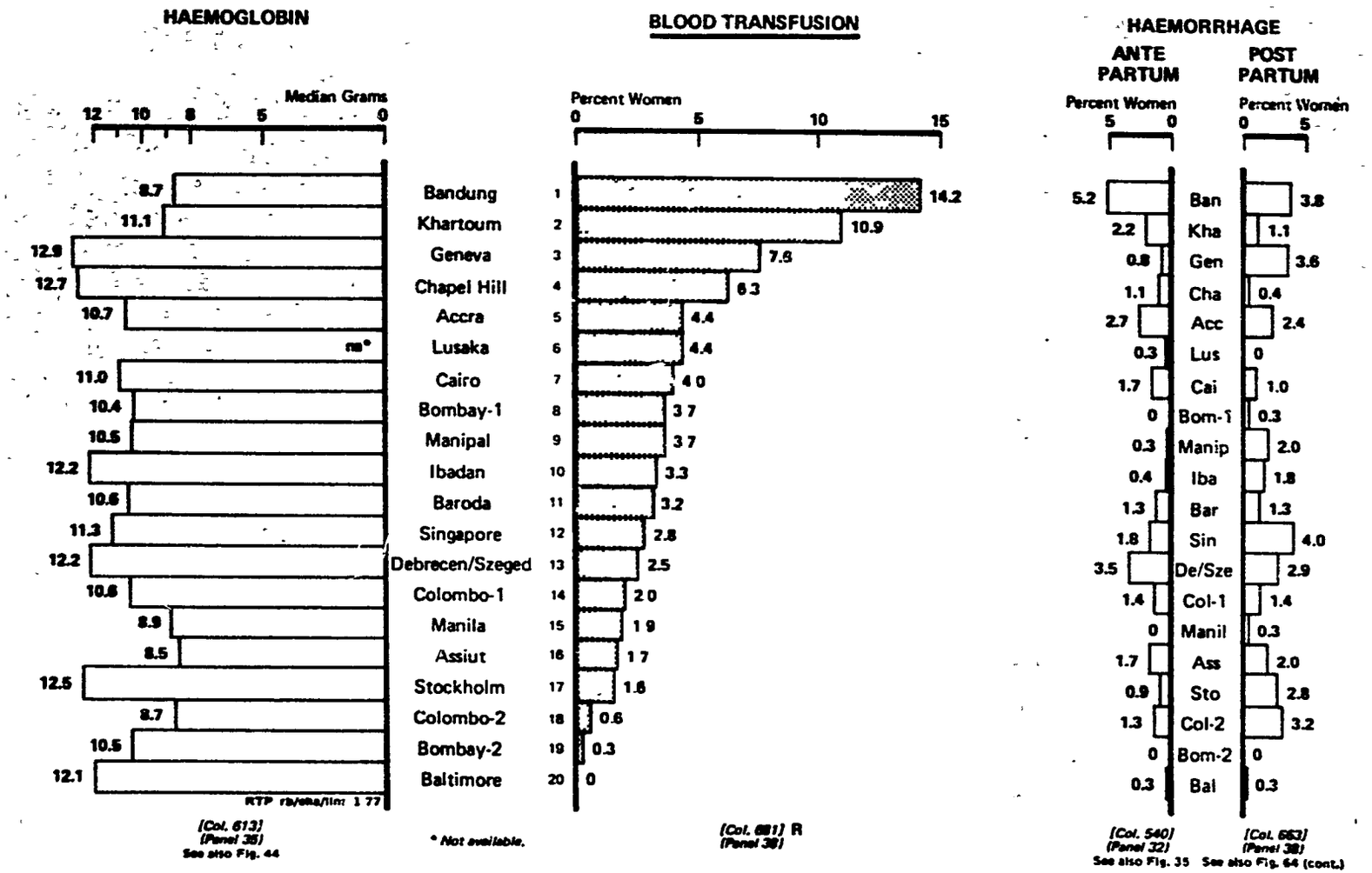


Figure 69. Ranking in Descending Order of Percent Women with BLOOD TRANSFUSION During Hospitalisation for Delivery (Center). Corresponding Values of HAEMOGLOBIN at Admission (Left), ANTEPARTUM HAEMORRHAGE Recorded as Primary Maternal Condition, and POSTPARTUM HAEMORRHAGE/RETAINED PLACENTA Recorded as Primary Complication of Delivery (Right).

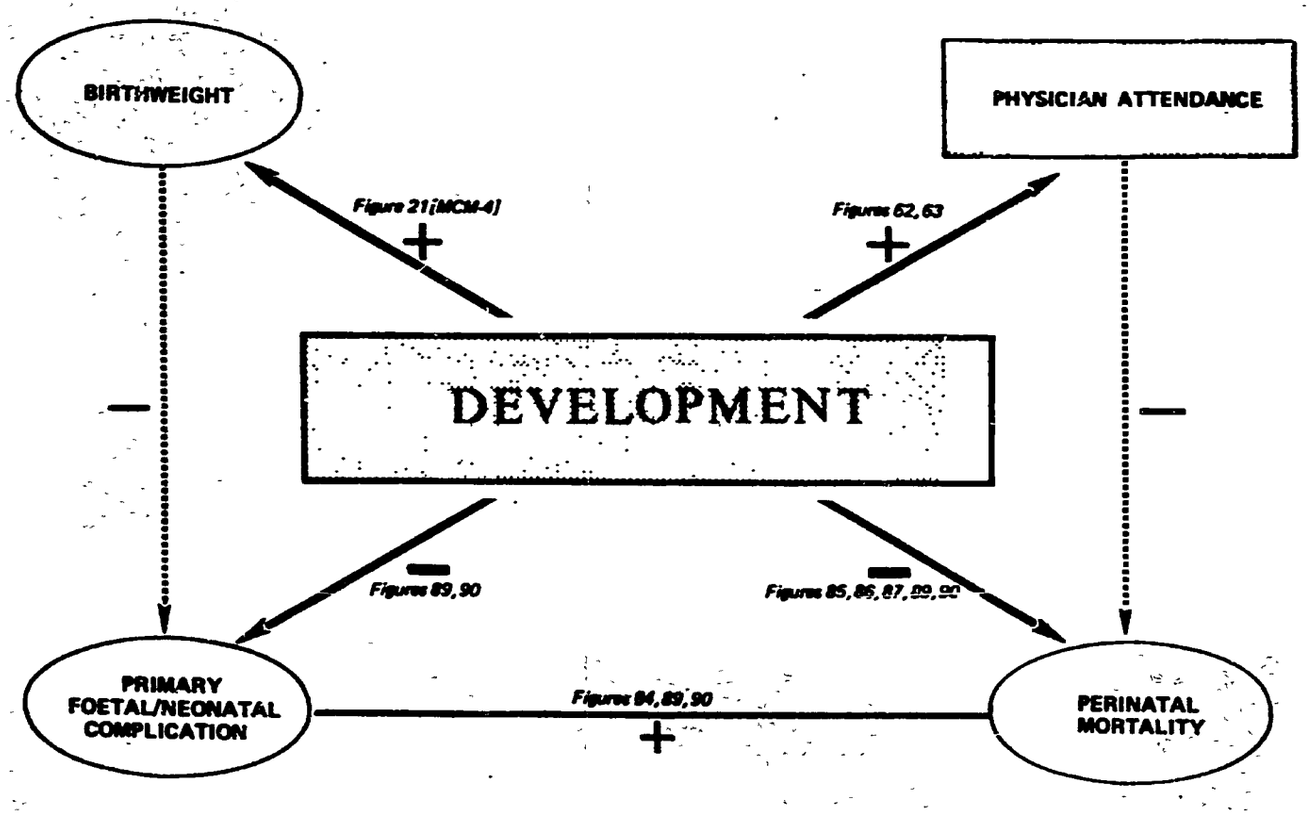
The range of "needed" blood transfusion spans from 0 to 14.2% with a median value of 3.25%. The developed country samples tend to lie at the two extremes, except for the Debrecen/Szeged and Singapore samples. With larger samples it will be possible to distinguish blood transfusions given before/during/after delivery. Future transclinical correlation studies of blood transfusion will have to take into consideration the four variables here given side by side. The ante/postpartum haemorrhage comparison "tree" points to a positive association of these two conditions, which raises questions of interest to both the clinician and the epidemiologist. Both categories of questions may affect optimization of the management of deliveries across the various institutions.

2.4.3 POSTPARTUM

Figures 81 – 90

Figure 81	Postpartum Tubal Ligation and Postpartum Hospital Stay	856-860/863/868/9
Figure 82	Primary Foetal/Neonatal Complications: Four Considerations	882-885
Figure 83	Primary Foetal/Neonatal Complications among Infants Alive at Discharge	941-945
Figure 84	Primary Foetal/Neonatal Complications, by Status of Infant & Development	917-945
Figure 85	Hospital Stillbirths and 'Neonatal Deaths' with This Delivery	877/878
Figure 86	Perinatal Wastage for Maternity Wards in Two World Regions	870/873
Figure 87	Stillbirth, by Presentation	889/891/913
Figure 88	Sex Ratio Shift as a Result of Perinatal Mortality	879/80
Figure 89	Status of Infant, by Primary Foetal/Neonatal Complication & Development.	949-980
Figure 90	Risk of Fresh Stillbirth and Risk of 'Neonatal Death', by Foetal/Neonatal Complications and by Development	

2.4.3 DEVELOPMENT EFFECTS POSTPARTUM



Observed Transclinical Associations

Hypothesized Associations to be Verified by Special Runs

+: direct association —+→ *positive effect on...*

−: inverse association —−→ *negative effect on...*

Figure: documentation of trans-clinical effect.

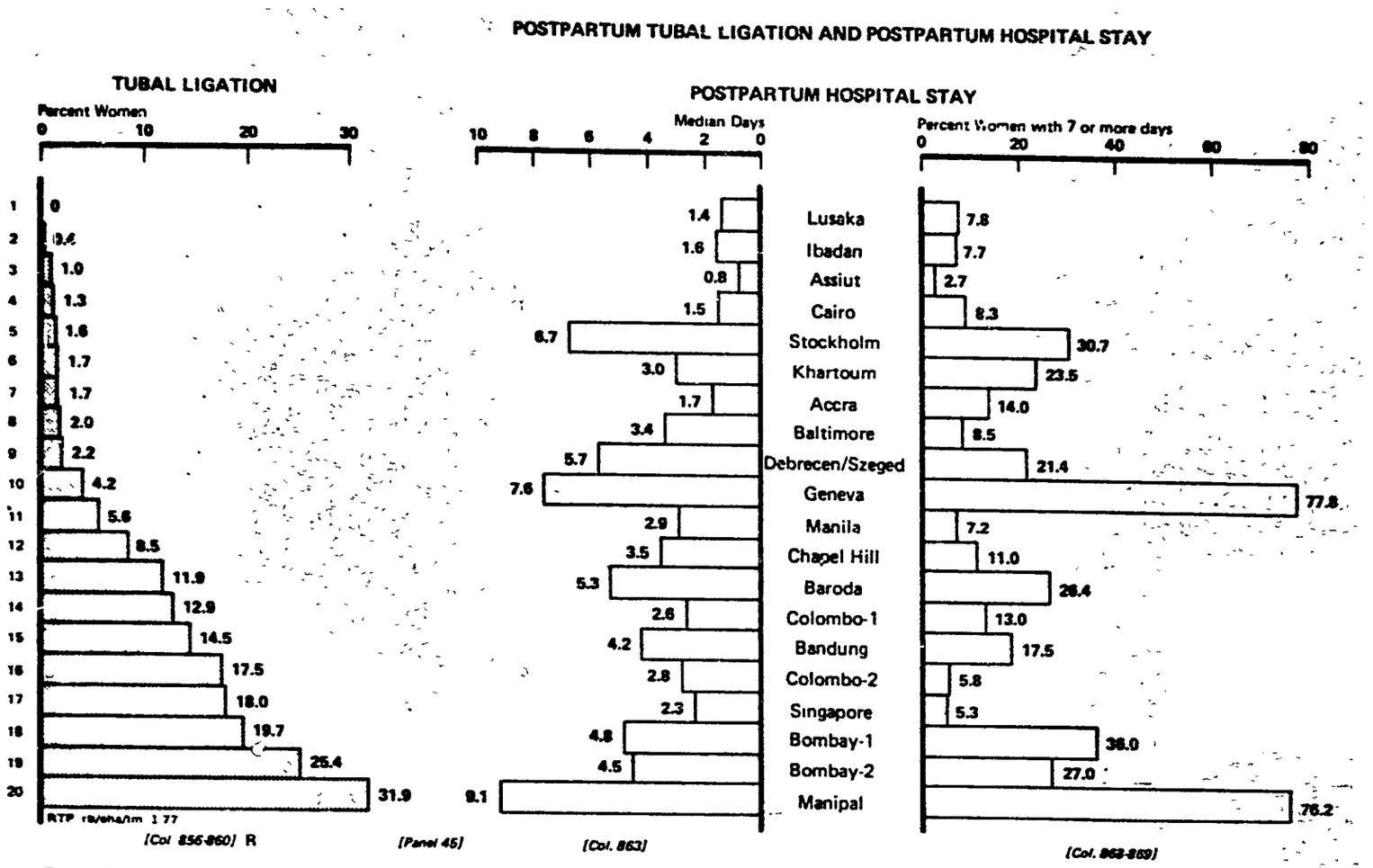


Figure 81. Ranking in Ascending Order of POSTPARTUM TUBAL LIGATION Prior to Leaving the Hospital (Left). Corresponding Median Days of POSTPARTUM HOSPITAL STAY

Postpartum tubal ligation ranges from 0 to 31.9 percent with a median of 4.5 percent. All African samples exhibit a ligation rate **below 2 percent** *against* **above 12 percent** *for the samples from the* **Indian subcontinent** *(11.9 to 31.9 percent). The European/USA samples lie between. In Asia, postpartum tubal ligation associates with postpartum hospital stay.*

Among the main regions, African samples show the shortest postpartum hospital stay.

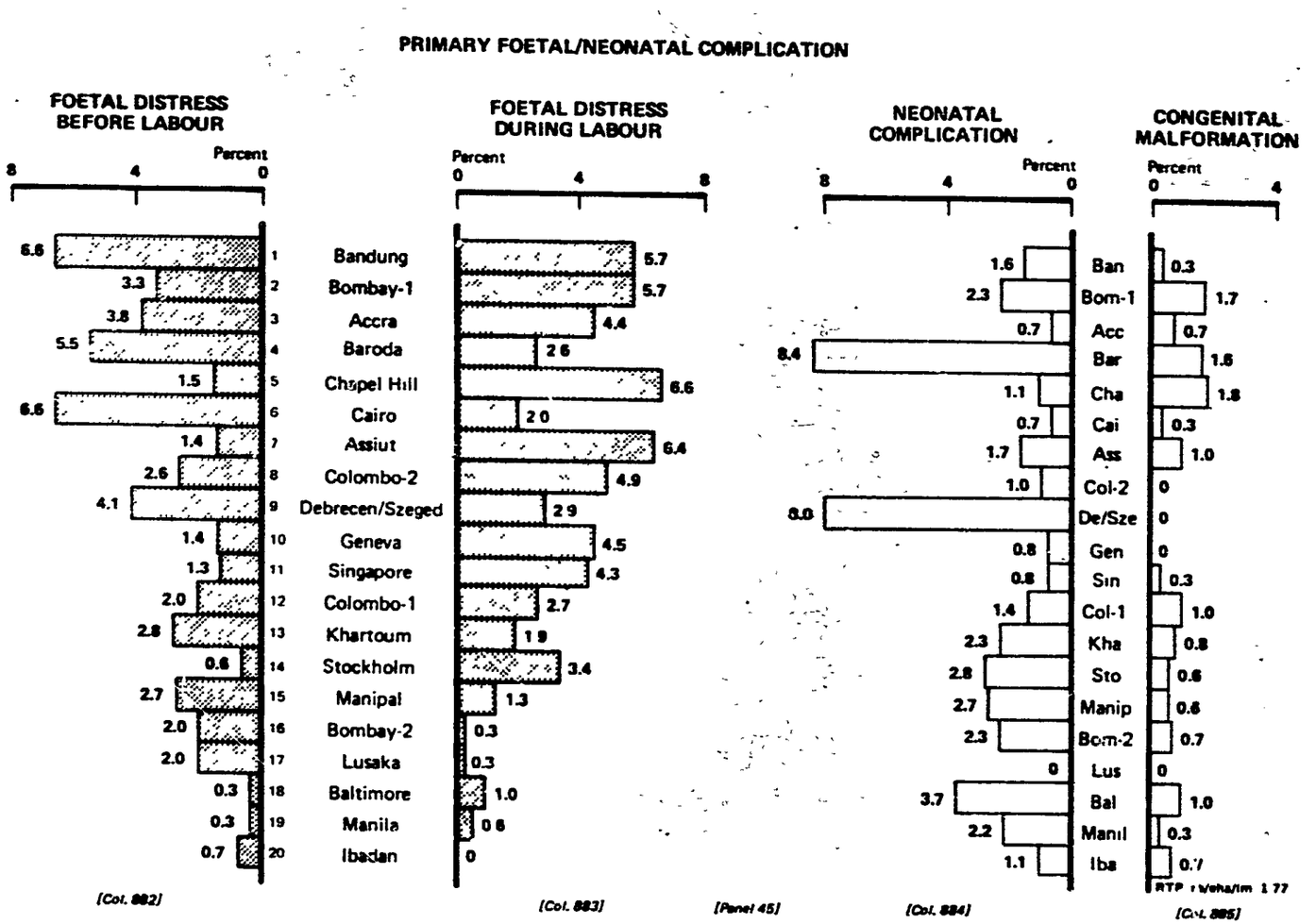
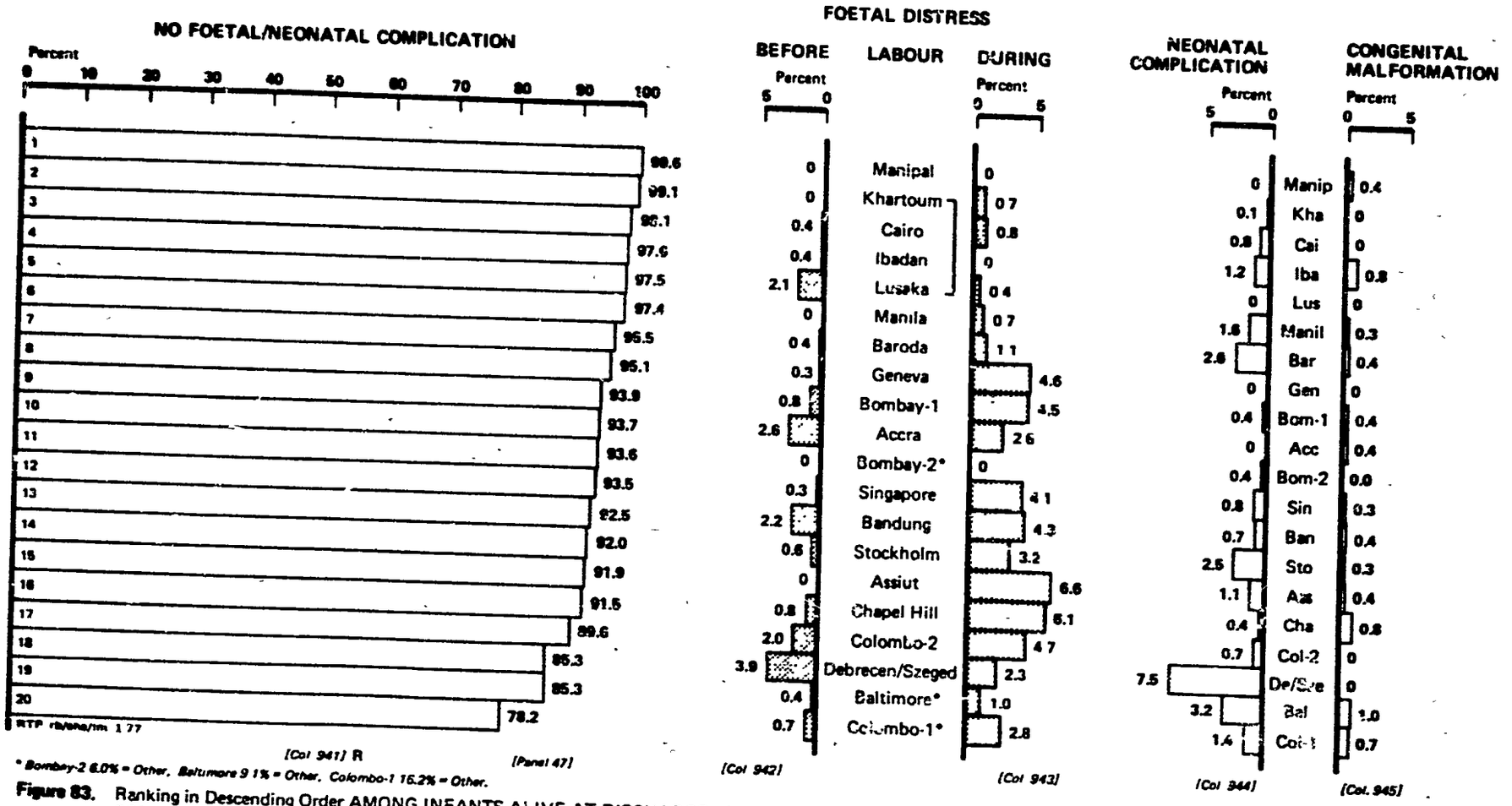


Figure 82. Initial Ranking in Descending Order of the Combined Percent of Foetal Distress Before and During Labour. Subsequent Dichotomy of the Two Groups (Left). Corresponding Percent of Neonatal Complications and Congenital Malformation (Right).

No rank sequence according to the general development was found. (European and African Samples spread equally across the entire range of development). However, a correlation emerges for foetal distress before and during labour. The broad range of neonatal complication is 0 - 8.4% with a median of 1.7%; the narrow range of congenital malformation is 0 - 1.8% with a median of 0.7%. This baseline merits broadening at an early date.

PRIMARY FOETAL/NEONATAL COMPLICATIONS AMONG (Single Birth) INFANTS ALIVE AT DISCHARGE FROM HOSPITAL



* Bombay-2 6.0% = Other, Baltimore 9.1% = Other, Colombo-1 16.2% = Other.

Figure 83. Ranking in Descending Order AMONG INFANTS ALIVE AT DISCHARGE of Percent (Single Birth) Deliveries WITH NO PRIMARY FOETAL NEONATAL COMPLICATION (Left) Corresponding Values of Four Classes of Primary Foetal Neonatal Complication.

This figure excludes perinatal mortality (in contrast to Figure 70) and studies the Foetal/Neonatal complications of the infants that left the hospital alive. In general, there emerges a pattern of 'development effect' insofar as foetal distress is coped with more successfully in developed country hospitals. Together with Figure 70, early expansion of this baseline will enable measurement by place of institutional performance in labour management.

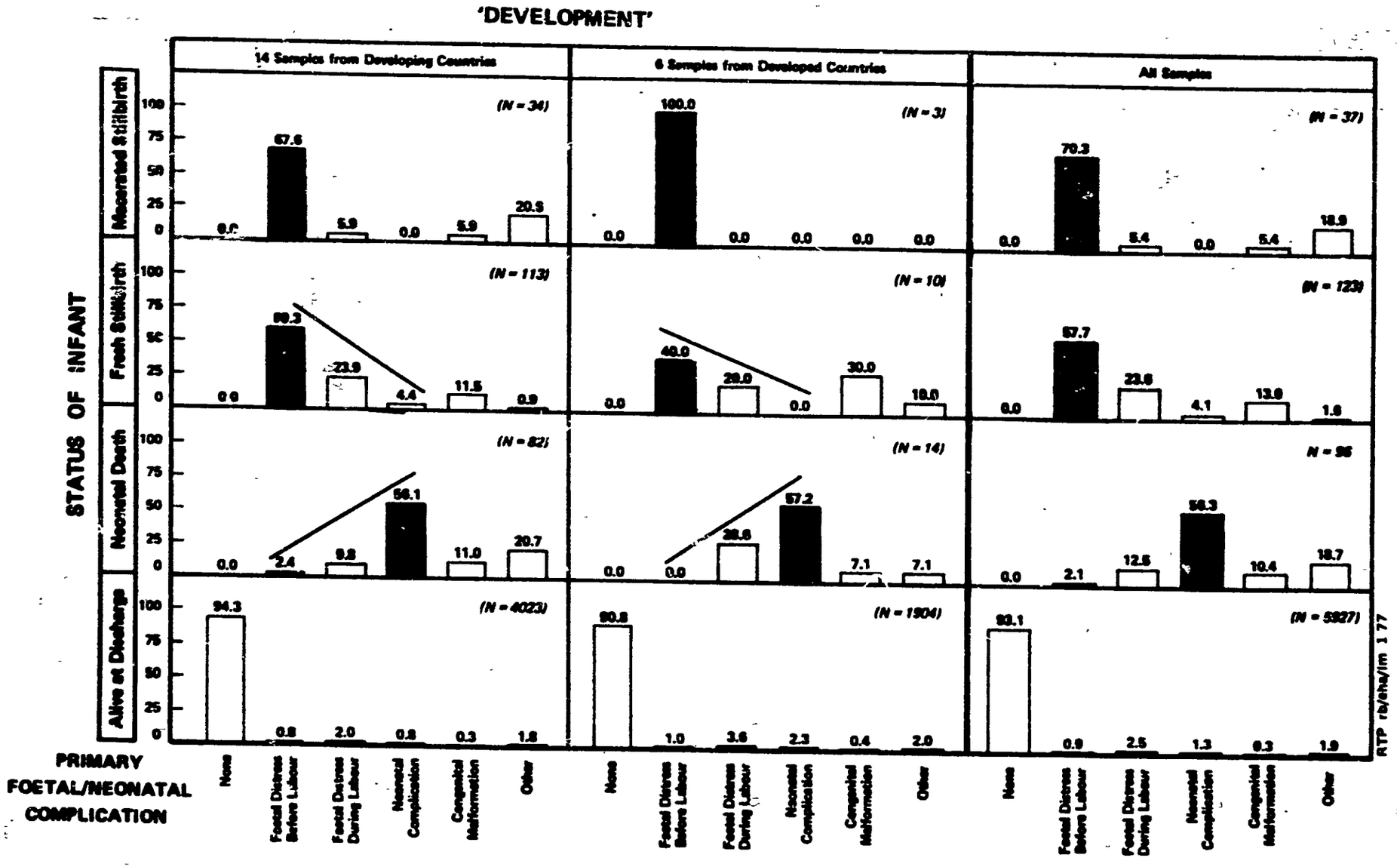


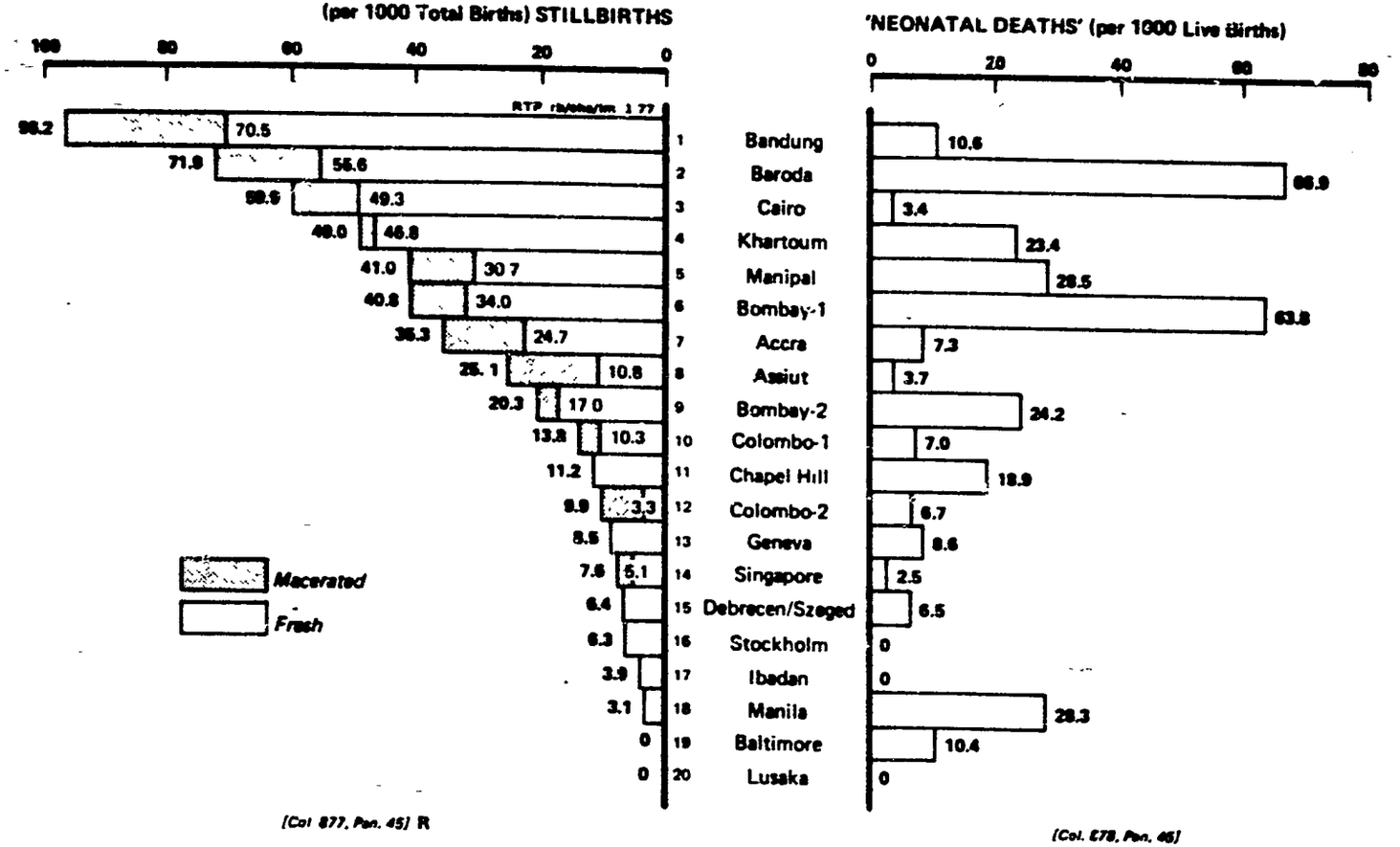
Figure 84. Primary Foetal/Neonatal Complications, by Status of Infant and Development.

Independent of 'Development,' the following associations are apparent:

1. *Stillbirth—Foetal Distress Before Labour*
2. *Neonatal Death—Neonatal Complication*

This plausible finding encourages further treatment of this data as proposed in Data Panel #48 and abstracted in Figures 89 and 90.

HOSPITAL STILLBIRTHS AND 'NEONATAL' DEATHS WITH THIS DELIVERY



[Col 877, Pan. 45] R

[Col. 878, Pan. 46]

Figure 85. Ranking in Descending Order of STILLBIRTH RATES (Left), with Dichotomy into Fresh and Macerated Stillbirth Rates. Corresponding 'NEONATAL DEATH RATES,' i.e. Postlive Birth Losses Before Discharge from Hospital (Right).

This figure is self-explanatory but experimental. It needs early expansion with continuous recording and increase of sample sizes.

PERINATAL WASTAGE FOR MATERNITY WARDS IN TWO WORLD REGIONS

Two "Regional" Data Sets

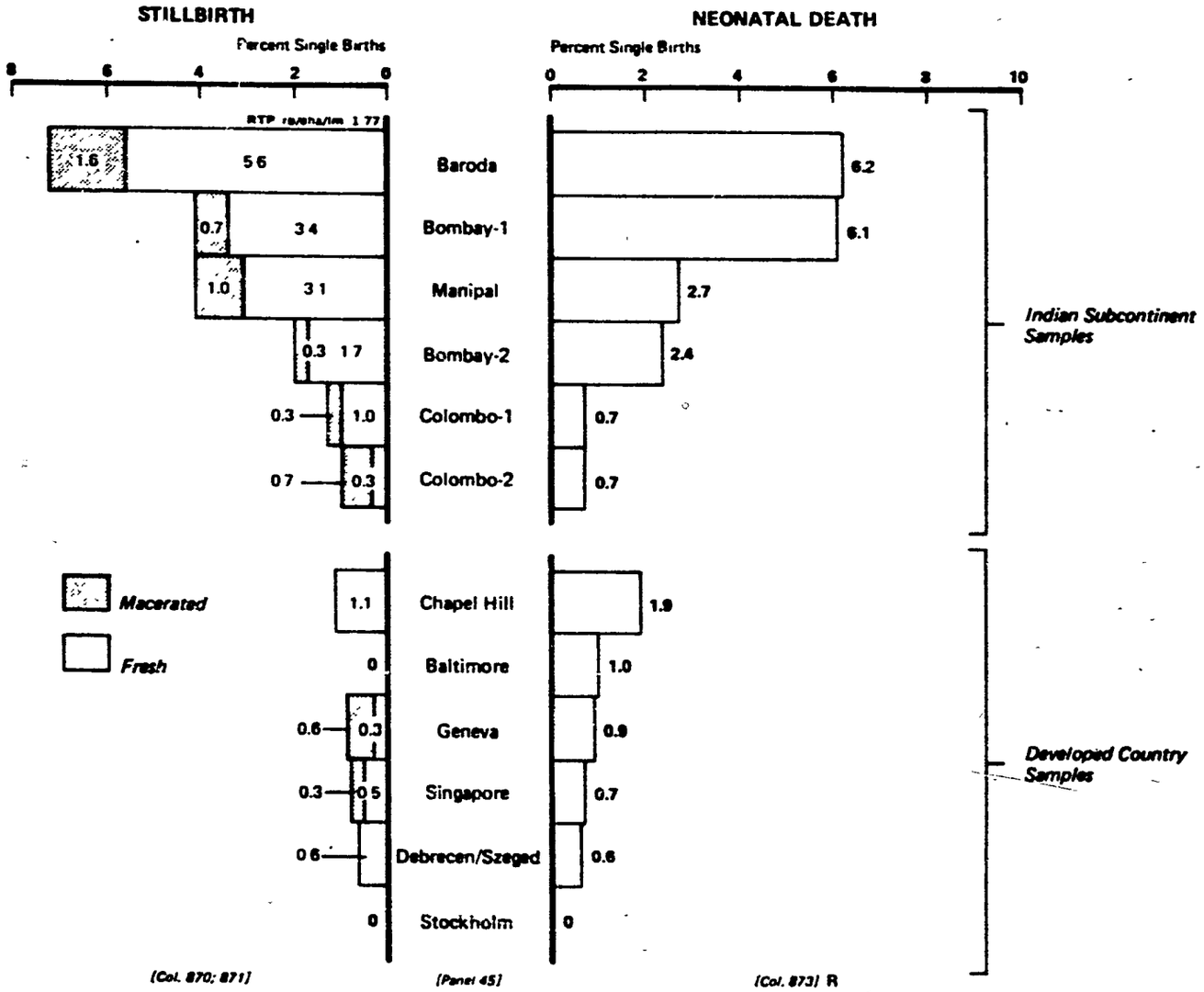


Figure 86. Ranking in Descending Order of Percent Single Births Recorded as 'Neonatal' Deaths (= prior to discharge) for the six Pretest Samples of the **Indian Subcontinent** and the samples from **Developed Countries** (Right). Corresponding Fresh and Macerated Stillbirths (Left).

While this chart is experimental, it shows a strong positive association between the two components of Perinatal Wastage, and this across the study places. Note the two Bombay and Colombo pairs. Early expansion with continuous recording will enable refined cross-sectional comparisons within regions and may lead to continuous inquiry into Regional Perinatal Mortality

STILLBIRTH BY PRESENTATION

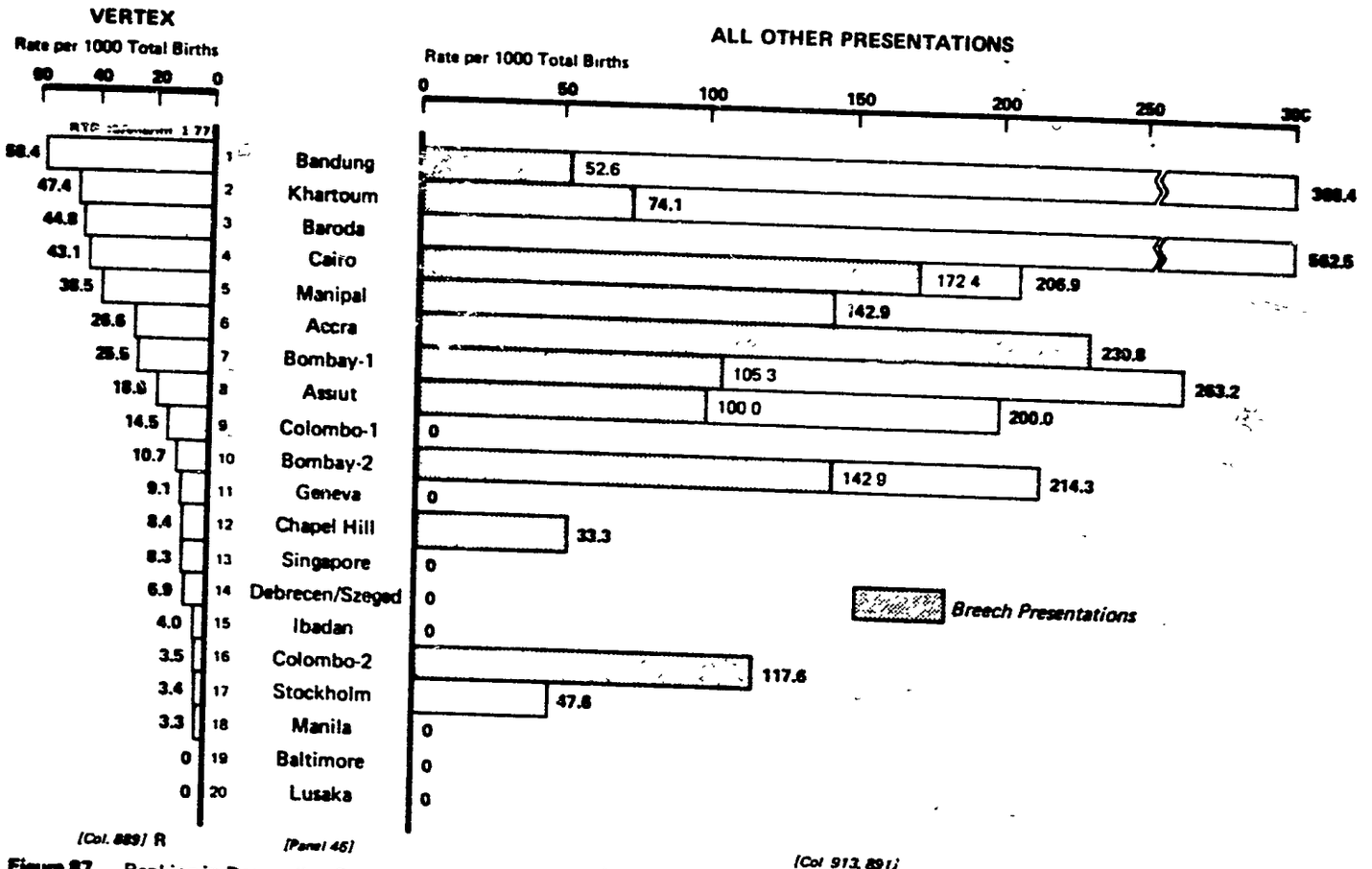


Figure 87. Ranking in Descending Order of STILLBIRTH RATES (number of stillbirths per 1000 total births) for all Single Birth VERTEX PRESENTATIONS (Left). Corresponding Stillbirth Rates for ALL OTHER PRESENTATIONS, i.e. Breech, Face, Brow, Transverse, Compound, Other and Unknown (Right), with shading of the share in stillbirth associated with breech delivery.

Stillbirth rates subsequent to VERTEX PRESENTATION across the twenty institutions range from 58.4 to zero, with a median rate of 9.9. All Developed Country samples show values below 10/1000, with a median rate of 7.6. Note the favourable positions of a few samples from Africa and Asia not only for vertex presentations but also for all other presentations. However, stillbirths among ALL OTHER THAN VERTEX PRESENTATIONS ('Nonvertex') are dramatically higher for most samples from Developing Countries (negative development effect on stillbirth incidence). Stillbirth is most often associated with BREECH DELIVERIES (shaded, preservation effect on stillbirth). This emerging transclinical baseline of Foetal Death by Presentation would suggest a need for early expansion, continuous recording and refinement (sorting out of fresh versus macerated stillbirths, adding the early neonatal span) in order to initiate systematic inquiry into causes of Perinatal Mortality.

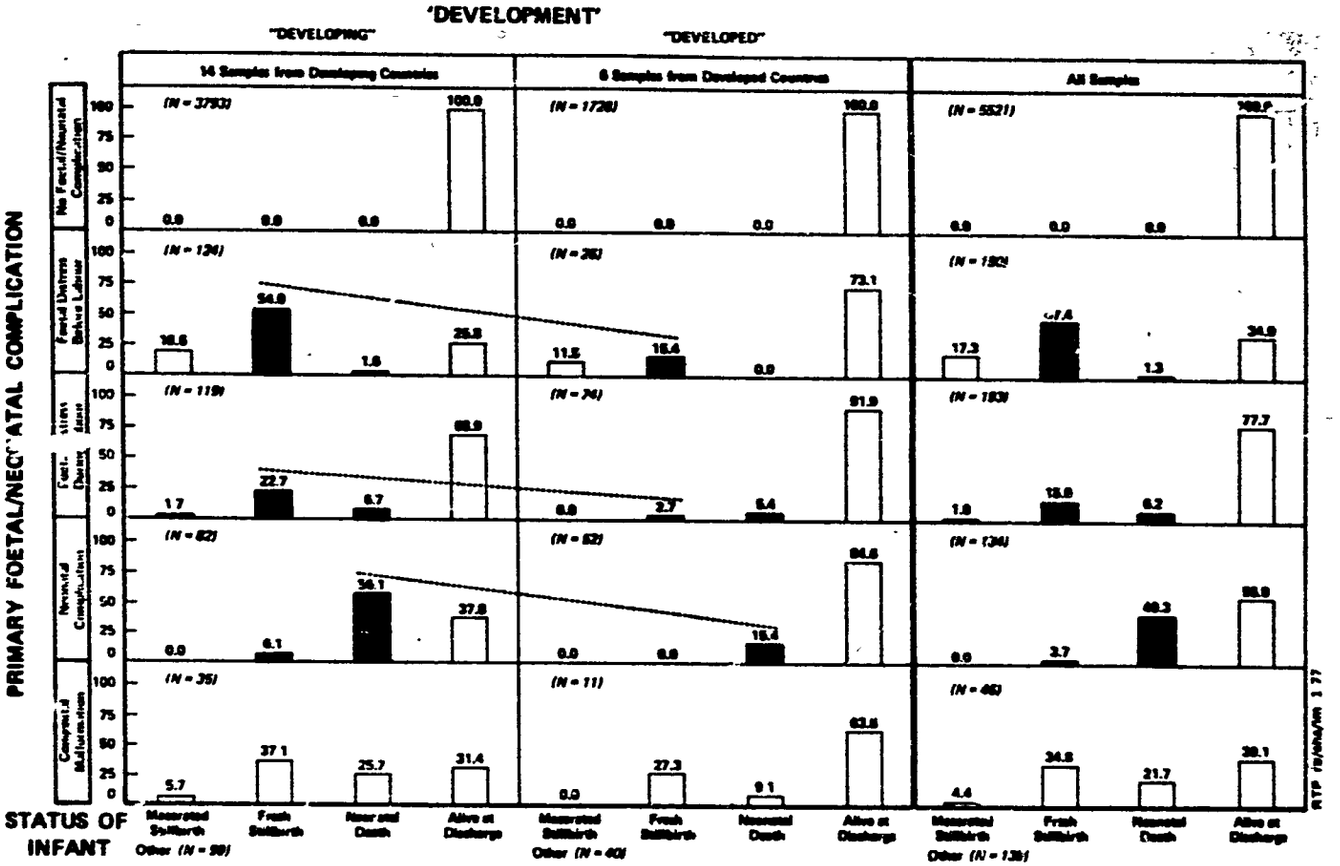


Figure 89. Status of Infant, by Primary Foetal/Neonatal Complication and 'Development.'

While this chart is based on pretest data alone (6000 women for 20 centers, Summer 1976), interesting patterns emerge:

1. *The type of F/N Complication seems to govern the status of infant which distributes very specifically across the various categories. For infants with* **Foetal Distress BEFORE Labour**, *the probability of dying in utero prior to delivery is very high (64.7% = 47.4% fresh stillbirths and 17.3% macerated stillbirths) with virtually no deaths in the early neonatal hospital phase. For infants with* **Foetal Distress DURING Labour**, *the outlook is less grim as the likelihood of stillbirth is 16.0% (15.0% fresh stillbirth); however that of neonatal death has increased to 6.2%. For infants with* **Neonatal Complications** *the (pooled) likelihood of being discharged alive from the hospital was 56.0 percent, with 40.3% of neonatal deaths. In sum, there emerges a* **complication effect** *on the status of the infant with the following specific pattern:*
   a) *Foetal distress BEFORE labour is associated with a much higher probability of both macerated and fresh stillbirth than is FOETAL distress DURING labour.*
   b) *Neonatal complication is associated with a high toll of neonatal deaths.*
2. *The location (catchment area) of the Maternity Hospital/Department governs the status of the infant, which distributes very differently across the various categories of outcome according to whether the institution is in a developed or developing country. For the three major F/N Complication categories (FD before; FD during labour and neonatal complication) the likelihood of fresh stillbirths and neonatal death before discharge is 3.5 to 8.5 times higher for the institutions in developing countries than for those in developed countries. Obviously, a* **broad development effect** *on the status of the infant is emerging here, which will have to be studied in some depth with greater samples after the definitive test of the Maternity Record will have been conducted.*

It would appear that the path is now open to quantify specific risks and to compare them against standard baselines (relative risks). Some findings are highlighted in Figure 90

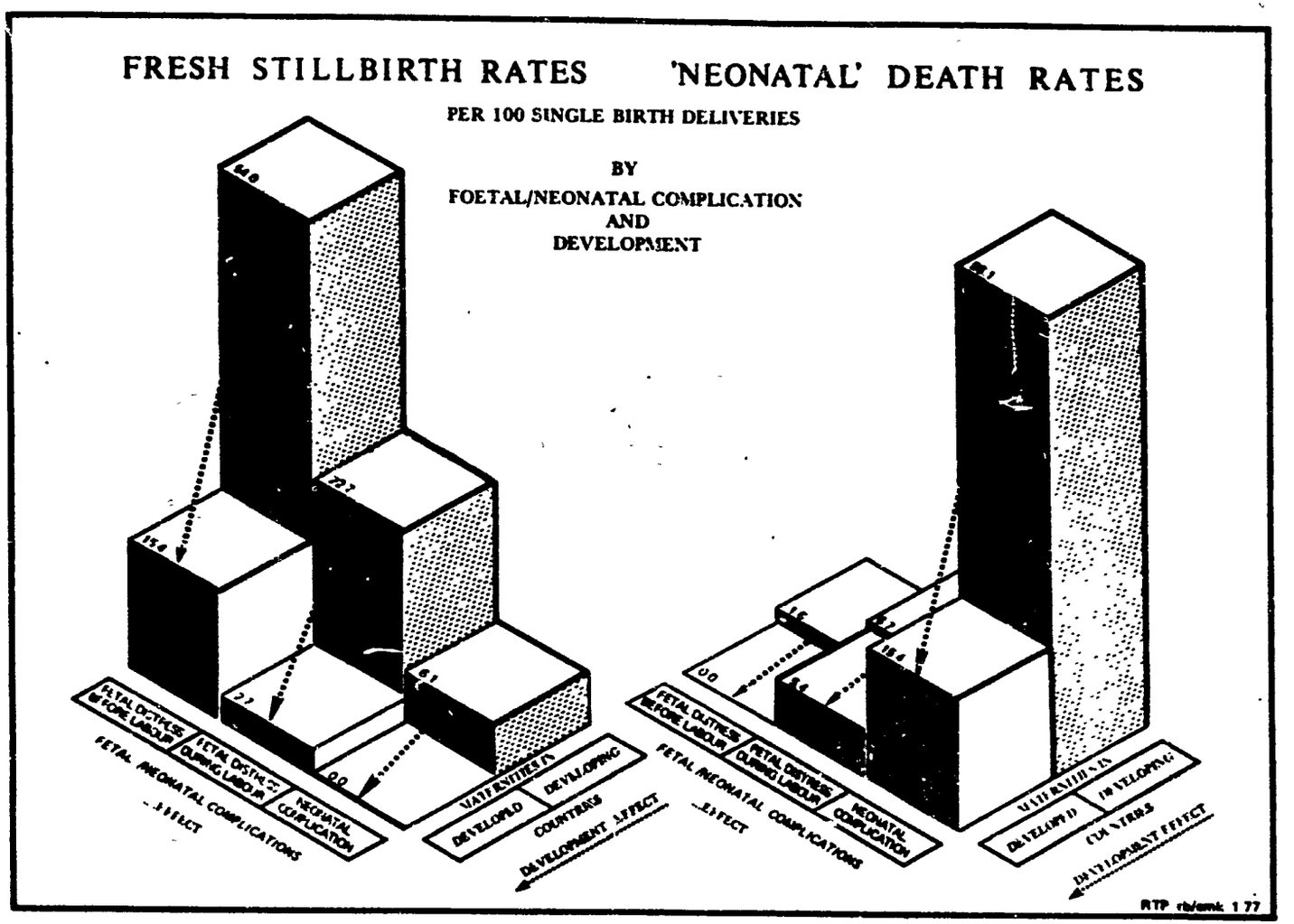


Figure 90. RISK OF FRESH STILLBIRTH and RISK OF 'NEONATAL DEATH', BY FETAL/NEONATAL COMPLICATIONS AND BY DEVELOPMENT. Derived from Figure 89.

Two effects are noteworthy (1) *Primary Fetal/Neonatal* **Complication Effect** *on both Stillbirth and Neonatal Death*

(2) **Development Effect** *on Risks of Stillbirth and Neonatal Deaths*

The various risks in various hospitals of developing countries are a multiple of the risks in the 6 hospitals enlisted from the developed countries.

This tri-variate chart should be compared with data in two to three years in order to assess the new development differential as impacting INFANT WASTAGE.

2.5 A SERVICE-CUM-RESEARCH STRATEGY

2.5.1 From MCM-SERVICE to SERVICE-RESEARCH

2.5.2 EMPIRICAL RESEARCH MODEL: A Starting Point

2.5.1 FROM MCM-SERVICE TO SERVICE-RESEARCH

The salient findings of the clinical part of the pretest, as derived from the standard computer output, were summarized in effect statements. The latter constitute statistical building blocks for the construction of models. Three such models have emerged; one each for the antepartum, intrapartum, and postpartum. In turn, these models were synthesized into an overview model that gives "development" as the central variable affecting the outcome of the following variables:

		Association			Association
1.	Fertility	(-)	5.	Birthweight	(+)
2.	Antenatal Care	(+)	6.	Professional Attendance	(+)
3.	Haemoglobin	(+)	7.	Foetal/Neonatal Complication	(-)
4.	Pregnancy Duration	(+)	8.	Perinatal Mortality	(-)

This is shown on the next page with additional areas of interest: Family Planning, Smoking, Infant Mortality, and Maternal Mortality. In short, while general development, characterized by better antenatal care, higher haemoglobin, longer pregnancy duration, higher birthweight, and more complete physician attendance, could be observed cross-sectionally, a decrease in reproduction (fertility), foetal/neonatal complications, and perinatal mortality could also be noted.

This *baseline model* is internally consistent and the 26 associations combine into a complex interactive web of factors governed by general development. Such a model, as generated from cross-sectionally collected empirical data from twenty maternity wards around the world, suggests a strategy for future research in maternity care monitoring:

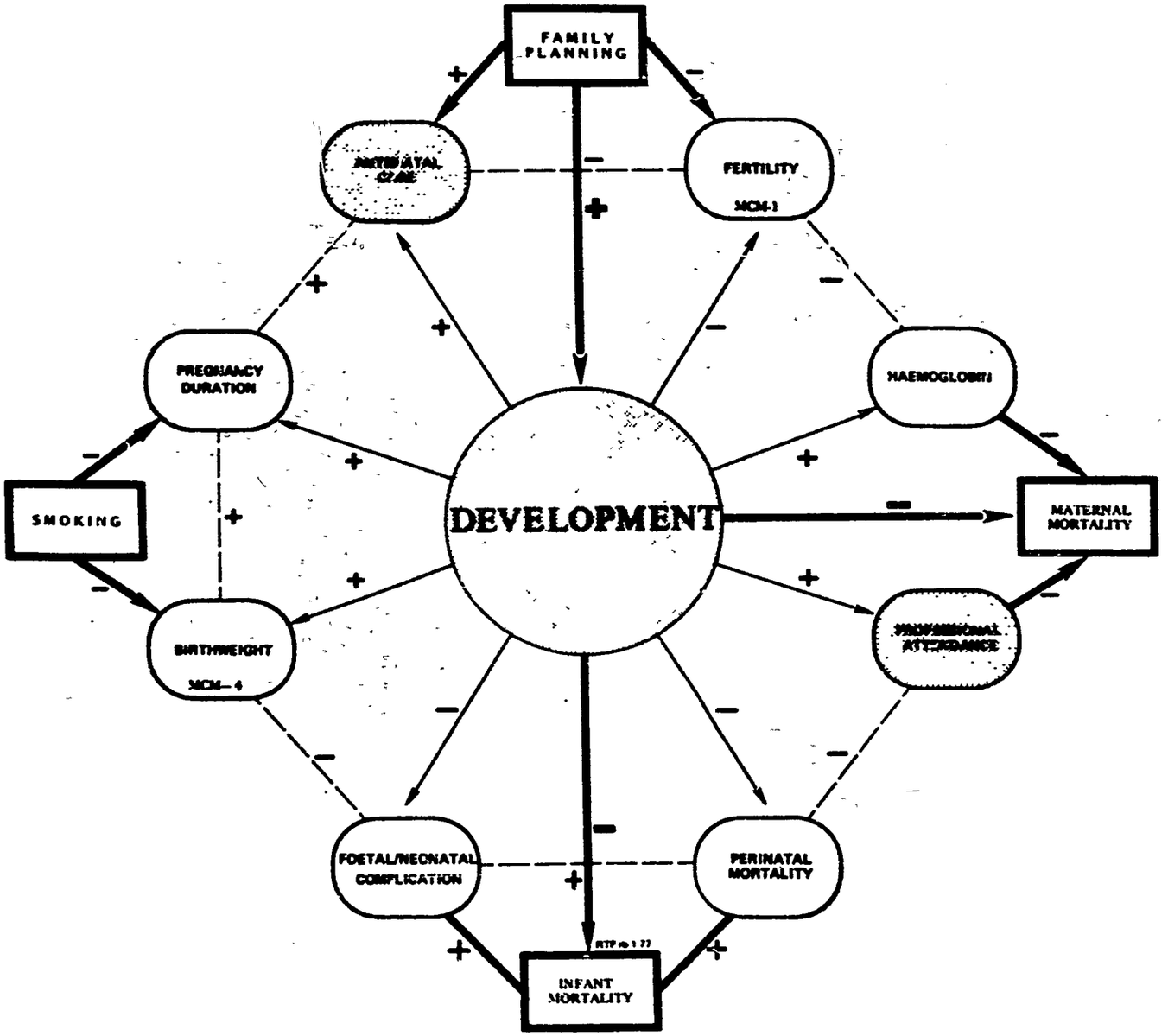
A. *Practical Model Building of Human Reproduction*
   1. Refinement of the model by examining other variables and controlling for certain key variables.
   2. Validation of the transclinical model by studying large single-place data sets from different regions.
   3. Regionalization of the model in order to pick up socio-cultural traits as well as local tradition in management.
   4. Development of an ongoing inventory to classify all statistical associations and "effects" observed so far, by region and over time. (This approach may lead to *epidemiological tracing* of today's human reproduction, by place and over time).

B. *Epidemiological Trend and Pattern Studies*
   1. An intergrated, broad-front *surveillance of risks* associated with pregnancy can be deployed in all maternity wards that apply maternity care monitoring. The evolution of these risks should be traceable in the annual report of the maternity ward.
   2. Systematic inquiry into *perinatal mortality* (present delivery) and into *infant mortality* (recall data) may become one of the most promising aspects of maternity care monitoring. Cause-effect hypotheses could be tested at short intervals by place and over time.

C. *Clinical Research in Pregnancy Management*
   1. The birth process at the clinic can be epidemiologically monitored. Interclinic comparison of the medical management of delivery shows variation. Effect of changes in clinical management can be measured over time in individual institutions or regions.

   2. Management in the early postpartum merits particular attention with regard to spacing. *Method shift* studies will show the evolution of contraceptive behavior.

2.5.2 EMPIRICAL RESEARCH MODEL



3 TOPICAL DATA BASE

3.1 Rationale
3.2 Standard Format for Data Panels
3.3 Topical Data Panels
3.3.1 Antepartum, Panels 31-35
3.3.2 Intrapartum, Panels 36-44
3.3.3 Postpartum, Panels 45-48

3.1 RATIONALE
Topical Data Base

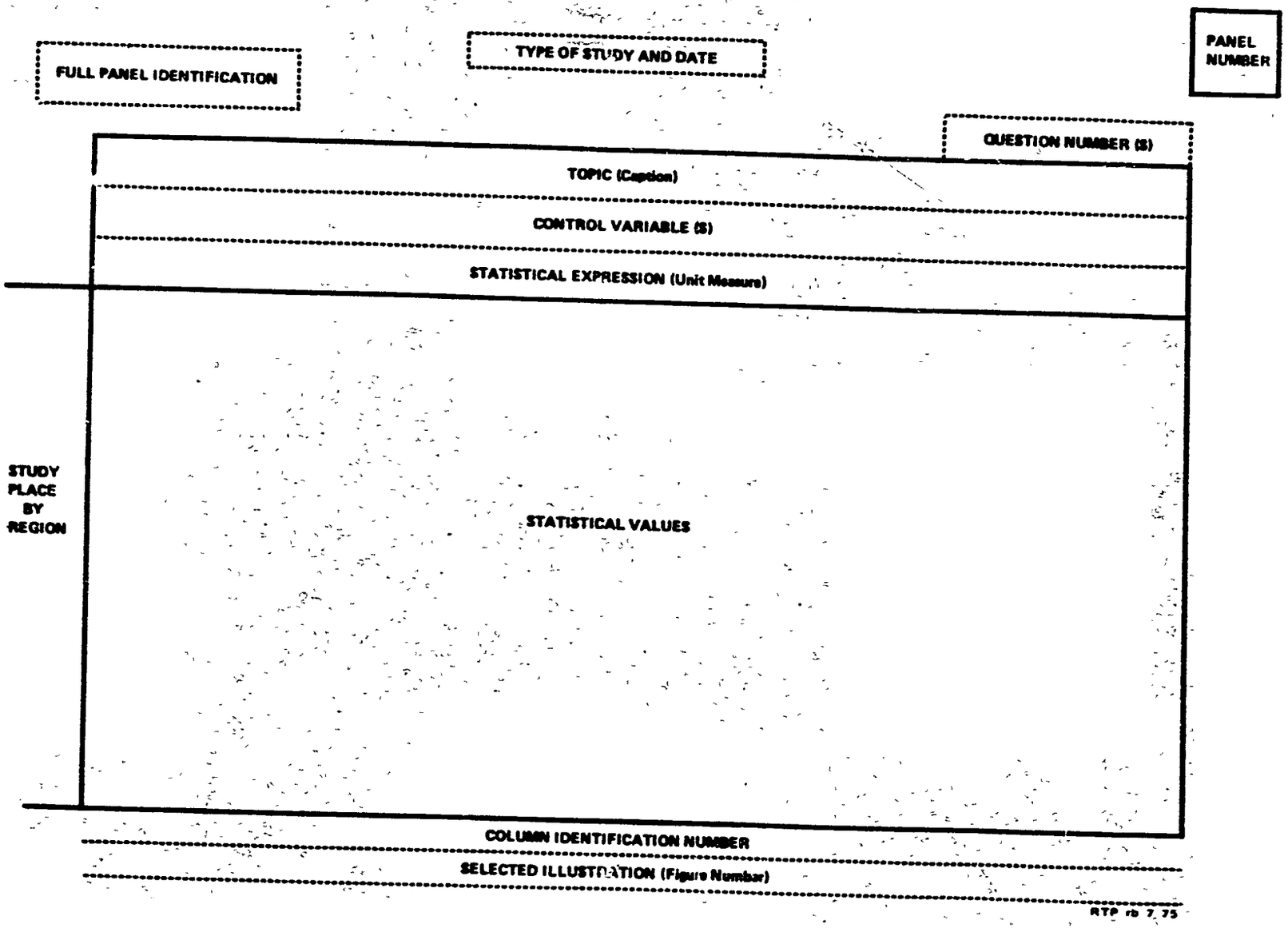
Subsequent pages in this section provide full statistical documentation for this analysis of the present delivery, MCM-5. Eighteen topical data panels present the data as transcribed from the standard computer outputs for the twenty data sets. In short, the data panels contain the findings in a bivariate arrangement. Each statistical figure is identifiable within the panels by place (codes 1-20) and among the panels by topic (column numbers 500-980), thus allowing instant identification, access, and comparison. [Example: MCM-5/641/18 stands for 37.8% physician attendance at delivery in Singapore]. The topic itself is fully documented with regard to: Place (Institution), Study Size ('300'-frequency level), Question Number in Maternity Record [Q33 = Type of Presentation during Labour], Caption of Topic, Statistical Value, Column Number, Selected Illustration, and Data Panel Number.

The topical data panels were constructed according to the following rationale:

1. Any finding derived from International Maternity Care Monitoring needs *full statistical documentation.*
2. There must be *instant access* to such statistical documentation.
3. A *standard format* for documentation should be developed that would be suited to the profession of Obstetrics and Gynaecology. This format is likely to be the foundation upon which future yearbooks of Maternity Care Monitoring will be based, at regional, national, and international levels. The design should allow instant comparisons among centers of a broad battery of variables pertaining to antepartum, intrapartum, and postpartum conditions.
4. The presentation should follow a *rigorous, functional logic* that will allow professionals to construct models dealing with the process of human reproduction.
5. Conventional statistical language should be used at a level compatible with creative dialogue with the professionals in Obstetrics and Gynaecology. A built-in routine refinement is to *control for* certain variables, such as parity, and to *restrict* certain tabular presentations to groups of special interest.
6. Each statistical figure must be identifiable by a *coded reference* that will allow instant access and unmistakeable reference.
7. Illustrations of the findings will be derived from the statistical documentation and, therefore, a *system linking all related elements* is necessary.

International Maternity Care Monitoring can grow only if successive analyses are built upon fully documented data bases that are available for future reference and comparison. Experimentation with and refinement of a format that would satisfy various requirements is encouraged.

3.2 STANDARD FORMAT FOR DATA PANELS



3.3 TOPICAL DATA PANELS

Contents

		Topic	Columns
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3.3.1 ANTEPARTUM

Panels 31—35

	Topic	Columns
Panel 31	Antenatal Visits, by Parity	500-525
Panel 31A	Antenatal Visits, by Parity; a reconsideration	500-519a
Panel 32	Primary Maternal Antenatal Condition, by Parity	526-550
Panel 33	Predelivery Hospitalization, by Parity	551-574
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Panel 35	Duration of Pregnancy in Completed Weeks	593-602
	Duration of Pregnancy in Completed Weeks, by Parity	603-611
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PANEL 31: ANTENATAL CONDITIONS - I
Antenatal Visits by Parity
(Cf. Tab. 1.1, Col. 500-525)

Q30(20)

	PLACE	Number of Women	Mean	Median	PRIMIPARAS P=1 NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	MULTIPARAS P=2-4 NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	GRAND MULTIPARAS P=5+ NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	ALL PARITIES NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	
1	CHAPEL HILL	272	6.7	7.2	6	2.2	86	31.7	128	47.2	1	0.4	82	30.3	135	49.8	-	-	4	1.5	8	3.0	7	2.6	172	63.5	271	100.0	1
2	BALTIMORE	294	6.9	7.2	3	1.0	114	38.8	166	56.5	6	2.0	72	24.5	117	39.8	-	-	7	2.4	11	3.7	9	3.1	193	65.6	294	100.0	2
3	STOCKHOLM	319	7.9	7.5	-	-	164	51.4	173	54.2	2	0.6	135	42.3	142	44.5	-	-	4	1.3	4	1.3	2	0.6	303	95.0	319	100.0	3
4	GENEVA	357	na																								na		4
5	DEBRECEN SZEGED	314	6.8	7.0	3	1.0	78	24.8	147	46.8	5	0.9	79	25.2	154	49.0	-	-	5	1.6	13	4.2	6	1.9	162	51.6	314	100.0	5
6	CAIRO	303	2.2	0.2	59	19.7	24	8.0	116	38.8	62	20.7	14	4.7	106	35.4	56	18.7	7	2.3	77	25.8	177	59.2	45	15.1	279	100.0	6
7	ASSIUT	295	2.0	0.8	21	7.3	5	1.7	50	17.4	38	13.2	6	2.1	97	33.8	48	16.7	10	3.5	140	48.8	107	37.3	21	7.3	287	100.0	7
8	KHARTOUM	469	3.3	2.0	77	16.6	29	6.2	120	25.8	73	15.7	57	12.3	203	43.7	48	10.3	41	8.8	142	30.5	198	42.6	127	27.3	465	100.0	8
9	ACCRA	293	7.1	7.4	8	2.7	95	32.6	112	38.5	11	3.8	81	27.8	101	34.7	3	1.0	69	23.7	78	26.8	22	7.6	245	84.2	291	100.0	9
10	IBADAN	272	5.4	5.3	-	-	5	1.8	16	5.9	11	4.0	55	20.2	159	58.4	5	1.8	35	12.1	97	35.7	16	5.9	93	34.2	272	100.0	10
11	LUSAKA	295	6.8	7.4	1	0.3	4	1.4	5	1.7	30	10.3	154	52.9	184	63.2	15	5.2	87	29.9	102	35.1	46	15.8	245	84.2	291	100.0	11
12	BARODA	310	2.1	0.3	43	13.9	11	3.5	95	30.7	81	26.1	14	4.5	179	57.7	16	5.2	2	0.6	36	11.6	140	45.2	27	8.7	310	100.0	12
13	BOMBAY-1	300	2.8	1.8	17	5.7	11	3.7	93	31.0	24	8.0	9	3.0	194	64.7	2	0.7	1	0.3	13	4.3	43	14.3	21	7.0	300	100.0	13
14	BOMBAY-2	299	2.4	1.6	18	6.0	1	0.3	92	30.8	28	9.4	3	1.0	166	55.5	5	1.7	1	0.3	41	13.7	51	17.1	5	1.7	299	100.0	14
15	MANIPAL	299	2.0	1.0	26	8.8	5	1.7	96	32.4	38	12.8	1	0.3	140	47.3	32	10.8	-	-	60	20.3	96	32.4	6	2.0	296	100.0	15
16	COLOMBO-1	294	5.2	4.9	6	2.0	21	7.1	131	44.6	9	3.1	16	5.4	138	46.9	2	0.7	1	0.3	25	8.5	17	5.8	38	12.9	294	100.0	16
17	COLOMBO-2	309	4.2	4.3	20	6.5	20	6.5	115	37.7	37	12.0	14	4.5	158	51.3	12	3.9	1	0.3	34	11.0	69	22.4	35	11.4	308	100.0	17
18	SINGAPORE	399	3.3	2.6	22	5.5	25	6.3	170	42.6	54	13.5	17	4.3	208	52.1	6	1.5	2	0.5	21	5.3	82	20.6	44	11.0	399	100.0	18
19	BANDUNG	318	3.2	1.0	55	17.8	23	7.4	101	32.7	47	15.2	45	14.6	124	40.1	46	14.9	19	6.1	84	27.2	148	47.9	87	28.2	309	100.0	19
20	MANILA	320	3.9	3.2	8	2.5	23	7.2	139	43.4	18	5.6	22	6.9	133	41.6	8	2.5	7	2.2	48	15.0	34	10.6	52	16.3	320	100.0	20
	Column		500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	

NUMBER OF ANTENATAL VISITS BY PARITY

Figure 33

Figure 31

PANEL 31A· ANTENATAL CONDITIONS - I
Antenatal Visits by Parity, a f consideration
(Cf. Tab. 1.1, Col. 500-519a)

MATERNITY PROFILE (Pretest, Summer 1978)
IFRP-FIGO

31A

O30(20)

	PLACE	Number of Women	Mean	Median	PRIMIPARAS P=1 NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	MULTIPARAS P=2-4 NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	GRAND MULTIPARAS P=5+ NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	P=2+ NUMBER OF VISITS None #	None %	8+ #	8+ %	Total #	Total %	
1	CHAPEL HILL	272	6.7	7.2	6	4.7	86	67.2	128	100.0	1	0.7	82	60.7	135	100.0	-	-	4	50.0	8	100.0	1	0.7	86	60.1	143	100.0	1
2	BALTIMORE	294	6.9	7.2	3	1.8	114	68.7	166	100.0	6	5.1	72	61.5	117	100.0	-	-	7	63.6	11	100.0	6	4.7	79	61.7	128	100.0	2
3	STOCKHOLM	319	7.9	7.5	-	-	164	94.8	173	100.0	2	1.4	135	95.1	142	100.0	-	-	4	100.0	4	100.0	2	1.4	139	95.2	146	100.0	3
4	GENEVA	537																									na		4
5	DEBRECEN SZEGED	314	6.8	7.0	3	2.0	78	53.1	147	100.0	3	2.0	79	51.3	154	100.0	-	-	5	38.5	13	100.0	3	2.2	84	50.3	167	100.0	5
6	CAIRO	303	2.2	0.2	59	50.9	24	20.7	116	100.0	62	58.5	14	13.2	106	100.0	56	72.7	7	9.1	77	100.0	118	64.5	21	11.5	183	100.0	6
7	ASSIUT	295	2.0	0.8	21	42.0	5	10.0	50	100.0	38	39.2	6	6.2	97	100.0	48	34.3	10	7.1	140	100.0	86	36.4	16	6.8	237	100.0	7
8	KHARTOUM	469	3.3	2.0	77	64.2	29	24.2	120	100.0	73	36.0	57	28.1	203	100.0	48	33.8	41	28.9	142	100.0	121	35.1	98	28.4	345	100.0	8
9	ACCRA	293	7.1	7.4	8	7.1	95	84.8	112	100.0	11	10.9	81	80.2	101	100.0	3	3.9	69	88.5	78	100.0	14	7.8	150	83.8	179	100.0	9
10	IBADAN	272	5.4	5.3	-	-	5	31.3	16	100.0	11	6.9	55	34.6	159	100.0	5	5.2	33	34.0	97	100.0	16	6.3	88	34.4	256	100.0	10
11	LUSAKA	295	6.8	7.4	1	20.0	4	80.0	5	100.0	30	16.3	154	83.7	184	100.0	15	14.7	87	85.3	102	100.0	45	15.7	241	84.3	286	100.0	11
12	BARODA	310	2.1	0.3	43	45.3	11	11.6	95	100.0	81	45.3	14	7.8	179	100.0	16	44.4	2	5.6	36	100.0	97	45.1	16	7.4	215	100.0	12
13	BOMBAY-1	300	2.8	1.8	17	18.3	11	11.8	93	100.0	24	12.4	9	4.6	194	100.0	2	15.4	1	7.7	13	100.0	26	12.6	10	4.8	207	100.0	13
14	BOMBAY-2	299	2.4	1.6	18	19.6	1	1.1	92	100.0	28	16.9	5	1.8	166	100.0	5	12.2	1	2.4	41	100.0	33	15.9	4	1.9	107	100.0	14
15	MANIPAL	299	2.0	1.0	26	27.1	5	5.2	96	100.0	38	27.1	1	0.7	140	100.0	32	53.3	-	-	60	100.0	70	35.0	1	0.5	200	100.0	15
16	COLOMBO-1	294	3.2	4.9	6	4.6	21	16.0	131	100.0	9	6.5	16	11.6	138	100.0	2	8.0	1	4.0	25	100.0	11	6.8	17	10.4	163	100.0	16
17	COLOMBO-2	309	3.2	4.3	20	17.2	20	17.2	116	100.0	37	23.4	14	8.9	158	100.0	12	35.3	1	2.9	34	100.0	49	25.5	15	7.8	192	100.0	17
18	SINGAPORE	359	3.3	2.6	22	12.9	25	14.7	170	100.0	54	26.0	17	8.2	208	100.0	6	28.6	2	9.5	21	100.0	60	26.2	19	8.3	229	100.0	18
19	BANDUNG	318	3.2	1.0	55	54.5	23	22.8	101	100.0	47	37.9	45	36.3	124	100.0	46	54.8	19	22.6	84	100.0	93	44.7	64	30.8	208	100.0	19
20	MANILA	320	3.9	3.2	8	5.8	23	16.6	139	100.0	18	13.5	22	16.5	133	100.0	8	16.7	7	14.6	48	100.0	26	14.4	29	16.0	181	100.0	20
	Column		500	501	502	503a	504	505a	506	507a	508	509a	510	511a	512	513a	514	515a	516	517a	518	519a	508 514	509a 515a	510 516	511a 517a	512 518	513a 519a	

Figure 32

Figure 34

IFRP-FIGO-Form 3 77

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PANEL 32: ANTENATAL CONDITIONS - II
Primary Maternal Antenatal Condition by Parity
ICL Tab. 1.2, Col 526-550

MATERNITY PROFILE (Present, Summer 1976)
IFRP-FIGO

$Q^{31[20]}$

PRIMARY MATERNAL ANTENATAL CONDITIONS, TOTAL & BY PARITY

	PLACE	Number of Women	NONE			ANAEMIA			HYPERTENSION			TOXAEMIA			HAEMORRHAGE			HYPEREMESIS			GENITAL TRACT DISEASE			SYSTEMIC DISEASE			OTHER			
			PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	PARITY 1	PARITY 2+	Total	
															100%	100%	100%													
1	CHAPEL HILL	272	61.7	60.1	61.0	3.1	4.2	3.7	7.0	4.2	5.5	13.3	1.4	7.0	1.6	0.7	1.1	-	-	-	-	-	-	-	2.1	1.1	13.3	27.3	20.6	1
2	BALTIMORE	296	80.1	75.0	77.9	7.2	10.9	8.8	6.0	3.1	4.8	-	-	-	0.6	-	0.3	-	-	-	1.2	0.8	1.0	3.0	0.8	2.0	1.8	9.4	5.1	2
3	STOCKHOLM	319	86.1	88.4	86.8	1.2	0.7	0.9	1.2	2.1	1.6	4.7	4.1	4.4	1.2	0.7	0.9	-	-	-	-	-	-	0.6	-	0.3	5.2	4.1	4.7	3
4	GENEVA	357	67.9	70.1	68.9	0.5	0.6	0.6	1.1	1.2	1.1	7.4	9.6	8.4	1.1	0.6	0.8	1.1	1.2	1.1	1.1	-	0.6	1.1	0.5	0.8	18.9	16.2	17.6	4
5	DEBRECEN SZEGED	314	59.2	50.9	54.8	21.1	20.4	20.7	0.7	1.2	1.0	8.8	8.4	8.6	2.7	4.2	3.5	1.4	1.2	1.3	0.7	2.4	1.6	2.7	1.2	1.9	2.7	10.2	6.7	5
6	CAIRO	303	86.2	80.3	82.6	3.4	3.3	3.3	-	0.6	0.3	2.6	2.2	2.3	1.7	1.6	1.7	0.9	-	0.3	0.9	-	0.3	1.7	2.2	2.0	2.6	9.8	6.9	6
7	ASSIUT	295	80.0	73.0	74.2	8.0	12.2	11.5	-	0.4	0.3	4.0	3.8	3.8	-	2.1	1.7	2.0	0.8	1.0	-	1.3	1.0	4.0	2.5	2.8	2.0	3.8	3.5	7
8	KHARTOUM	469	75.8	65.2	67.0	5.0	9.3	8.2	0.8	1.7	1.5	7.5	8.1	8.0	-	2.9	2.2	4.2	3.5	3.7	0.8	0.9	0.9	-	0.6	0.4	5.8	7.8	7.3	8
9	ACCRA	293	95.5	92.2	93.5	-	-	-	-	1.1	0.7	-	0.6	0.3	1.8	3.4	2.7	0.9	0.6	0.7	-	-	-	-	-	-	1.8	2.2	2.0	9
10	IBADAN	272	sn	94.9	95.2	sn	0.4	0.4	sn	1.2	1.1	sn	0.8	0.7	sn	-	0.4	sn	-	-	sn	-	-	sn	2.2	-	sn	2.3	2.2	10
11	LUSAKA	295	sn	77.6	78.0	sn	2.8	2.8	sn	3.2	3.1	sn	-	-	sn	0.4	0.3	sn	-	-	sn	0.4	0.3	sn	-	-	sn	15.7	15.5	11
12	BARODA	310	46.3	37.7	40.3	43.2	55.8	51.9	1.1	0.5	0.6	3.2	0.9	1.6	1.1	1.4	1.3	-	-	-	1.1	-	0.3	1.1	2.8	2.3	3.2	0.9	1.6	12
13	BOMBAY-1	300	73.1	85.5	81.7	1.1	1.5	1.3	-	0.5	0.3	12.9	2.9	6.0	-	-	-	-	0.5	0.3	2.2	-	0.7	4.3	3.9	4.0	6.5	5.3	5.7	13
14	BOMBAY-2	299	82.6	90.3	88.0	7.6	2.9	4.3	1.1	1.9	1.7	6.5	-	2.0	-	-	-	-	0.5	0.3	-	-	-	-	0.5	0.3	2.2	3.9	3.3	14
15	MANIPAL	299	83.3	86.4	85.1	3.1	9.0	7.1	-	-	-	11.5	1.0	4.4	-	0.5	0.3	-	-	-	-	-	-	-	0.5	0.3	2.1	2.5	2.4	15
16	COLOMBO-1	294	59.5	71.1	64.3	-	1.8	1.0	3.1	0.6	1.7	11.5	3.7	7.1	1.5	1.2	1.4	-	-	-	-	-	-	2.3	2.5	2.4	22.1	18.4	20.1	16
17	COLOMBO-2	309	68.1	73.2	75.1	0.9	4.7	3.2	7.8	4.2	5.5	5.2	1.6	2.9	1.7	1.0	1.3	-	0.5	0.3	1.7	-	0.6	-	-	-	14.7	8.9	11.0	17
18	SINGAPORE	399	75.3	83.0	79.7	2.9	3.1	3.0	2.9	0.9	1.8	5.9	6.1	6.0	1.2	2.2	1.8	-	-	-	-	-	-	1.2	0.9	1.0	10.6	3.9	6.8	18
19	BANDUNG	318	44.1	41.4	39.8	13.1	12.5	12.0	2.4	2.9	2.6	6.0	1.9	2.9	1.2	7.2	5.2	-	-	-	-	-	-	2.4	0.5	1.0	51.2	33.7	36.6	19
20	MANILA	320	94.2	95.0	94.7	-	-	-	1.4	-	0.6	1.4	2.8	2.2	-	-	-	2.2	1.7	1.9	-	-	-	0.7	-	0.3	-	0.6	0.3	20
	Column		526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550a	550b	550c	

Figure 37
Figure 36
Figure 35

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PANEL 33. ANTENATAL CONDITIONS - III
No. of Days Hospitalised Pre Delivery by Parity
(Cf. Tab. 1.4, Col 551-574)

MATERNITY PROFILE (Pretest, Summer 1978)
IFRP-FIGO

0^9 [illegible] 8/20

NUMBER OF DAYS HOSPITALISED PRE-DELIVERY BY PARITY

	PLACE	Number of Women	% PRIMIPARAS (P=1)						% MULTIPARAS (P=2-4)						% GRAND MULTIPARAS (P=5+)						ALL PARITIES						
			0	1-2	3-4	5-6	7+	All Days	0	1-2	3-4	5-6	7+	All Days	0	1-2	3-4	5-6	7+	All Days	0	1-2	3-4	5-6	7+	All Days	
									100%																		
1	CHAPEL HILL	272	37.3	8.1	0.7	0.4	0.7	47.2	41.0	7.0	0.4	0.4	1.1	49.8	2.2	0.4	-	-	0.4	3.0	80.6	15.5	1.1	0.7	2.2	100.0	1
2	BALTIMORE	294	40.5	13.9	1.0	0.7	0.3	56.5	33.0	5.1	-	-	1.7	39.8	2.4	0.7	0.7	-	-	3.7	75.9	19.7	1.7	0.7	2.0	100.0	2
3	STOCKHOLM	319	38.2	13.8	1.3	-	0.9	54.2	33.2	10.0	0.9	0.3	-	44.5	0.3	0.6	0.3	-	-	1.3	71.8	24.5	2.5	0.3	0.9	100.0	3
4	GENEVA	357	30.0	16.2	3.1	0.6	3.4	53.2	30.0	10.6	1.4	1.4	2.3	45.7	1.1	-	-	-	-	1.1	61.1	26.9	4.5	2.0	5.6	100.0	4
5	DEBRECEN SZEGED	314	31.2	11.1	2.2	0.3	1.9	46.8	30.3	13.4	1.9	-	3.5	49.0	2.5	0.6	-	0.3	0.6	4.1	64.0	25.2	4.1	0.6	6.1	100.0	5
6	CAIRO	303	15.1	23.1	0.3	-	0.3	38.8	20.7	11.4	0.7	0.3	2.3	35.5	13.0	9.7	1.3	-	0.7	25.7	48.8	44.2	2.3	0.3	4.4	100.0	6
7	ASSIUT	295	15.7	1.0	0.7	-	-	17.4	31.7	1.7	-	-	0.3	33.8	46.6	2.1	1.0	-	1.0	48.8	92.0	4.9	1.7	-	1.4	100.0	7
8	KHARTOUM	469	20.9	2.4	0.4	-	2.2	25.8	34.0	3.7	1.7	1.1	3.2	43.7	23.4	2.2	1.1	0.2	3.7	30.5	78.3	8.2	3.2	1.3	9.0	100.0	8
9	ACCRA	293	32.6	5.8	-	-	-	38.5	32.3	2.1	-	0.3	-	34.7	24.7	1.7	0.3	-	-	26.8	89.7	9.6	0.3	0.3	-	100.0	9
10	IBADAN	272	4.4	1.5	-	-	-	5.9	49.3	5.9	2.2	-	1.1	58.5	30.5	4.0	-	-	1.1	35.7	84.2	11.4	2.2	-	2.2	100.0	10
11	LUSAKA	295	1.7	-	-	-	-	1.7	42.3	13.4	3.4	0.7	3.4	63.2	24.7	6.5	1.0	0.7	2.1	35.1	68.7	19.9	4.5	1.4	5.5	100.0	11
12	BIRODA	310	24.2	6.5	-	-	-	30.6	49.0	7.7	1.0	-	-	57.7	10.6	1.0	-	-	-	11.6	83.9	15.2	1.0	-	-	100.0	12
13	BOMBAY-1	300	21.7	6.0	-	0.7	2.7	31.0	53.3	7.3	0.7	0.7	2.7	64.7	2.7	1.3	-	0.3	-	4.3	77.7	14.7	0.7	1.7	5.3	100.0	13
14	BOMBAY-2	299	21.7	8.7	0.3	-	-	30.8	44.5	10.4	0.3	0.3	-	55.5	11.4	2.3	-	-	-	13.7	77.6	21.4	0.7	0.3	-	100.0	14
15	MANIPAL	299	14.5	10.1	1.4	1.0	3.4	32.4	26.7	11.8	3.0	1.7	4.1	47.3	10.8	2.7	1.7	0.7	4.4	20.3	52.0	24.7	6.1	3.4	13.8	100.0	15
16	COLOMBO-1	294	16.0	18.0	5.8	1.7	3.1	44.6	24.5	15.0	3.1	1.7	2.7	46.9	4.8	2.4	0.3	0.3	0.7	8.5	45.2	35.4	9.2	3.7	6.5	100.0	16
17	COLOMBO-2	320	19.8	12.0	3.6	1.6	0.6	37.7	33.8	14.9	1.6	0.6	0.3	51.3	8.1	2.3	0.6	-	-	11.0	61.7	29.2	5.8	2.3	1.0	100.0	17
18	SINGAPORE	399	28.[illegible]	9.5	1.5	0.3	3.0	42.6	41.1	8.8	0.5	0.5	1.3	52.1	3.8	1.3	0.3	-	-	5.3	73.1	19.5	2.3	0.8	4.3	100.0	18
19	BANDUNG	318	22.3	10.0	0.3	-	-	32.7	32.7	6.9	-	-	0.6	40.1	22.0	4.9	-	-	0.3	27.2	77.0	21.7	0.3	-	1.0	100.0	19
20	MANILA	320	35.3	8.1	-	-	-	43.4	38.1	3.1	-	-	0.3	41.6	12.2	2.8	-	-	-	15.0	85.6	14.1	-	-	0.3	100.0	20
	Column		551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	

RTP [illegible] 177

Figure 38

PANEL 34: ANTENATAL CONDITIONS - IV
Hospitalisation Required Pre-Delivery, by Parity & Reason
(Cl. Tab. 1.3, Col. 575-592)

MATERNITY PROFILE (Pretest, Summer 1976)
IFRP-FIGO

0[32][20]

	PLACE	Number of Women	DAYS Mean	DAYS Median	PRE-DELIVERY HOSPITALISATION BY PARITY & REASON: PRIMIPARAS P=1 No	Yes[1]	Yes[2]	TOTAL	MULTIPARAS P=2-4 No	Yes[1]	Yes[2]	TOTAL	GRAND MULTIPARAS P=5+ No	Yes[1]	Yes[2]	TOTAL	ALL PARITIES No	Yes[1]	Yes[2]	TOTAL	
					100%																
1	CHAPEL HILL	272	0.8	0.6	41.3	4.8	1.1	47.2	44.7	4.4	0.7	49.8	2.6	0.4	-	3.0	88.6	9.6	1.8	100.0	1
2	BALTIMORE	294	0.7	0.7	51.0	5.4	-	56.5	36.4	3.1	0.3	39.8	3.1	0.7	-	3.7	90.5	9.2	0.3	100.0	2
3	STOCKHOLM	319	0.5	0.7	49.2	4.4	0.6	54.2	41.4	2.2	0.9	44.5	0.6	-	0.6	1.3	91.2	6.6	2.2	100.0	3
4	GENEVA	357	1.5	0.8	45.7	7.6	-	53.2	39.5	6.2	-	45.7	1.1	-	-	1.1	86.3	13.7	-	100.0	4
5	DEBRECEN SZEGED	314	1.6	0.8	43.9	2.9	-	46.8	43.0	4.1	1.9	49.0	3.8	0.3	-	4.1	90.8	7.3	1.9	100.0	5
6	CAIRO	303	1.5	1.0	37.5	1.3	-	38.8	32.4	2.3	0.7	35.5	22.1	3.0	0.7	25.8	92.0	6.7	1.3	100.0	6
7	ASSIUT	295	0.3	0.5	16.4	0.3	0.7	17.4	31.4	1.7	0.7	33.8	43.9	3.8	1.0	48.8	91.6	5.9	2.4	100.0	7
8	KHARTOUM	469	1.5	0.6	22.6	2.2	1.1	25.8	37.2	5.6	0.9	43.7	24.9	4.7	0.9	30.5	84.7	12.5	2.8	100.0	8
9	ACCRA	293	0.1	0.6	37.1	1.4	-	38.5	32.6	2.1	-	34.7	24.4	2.4	-	26.8	94.2	5.8	-	100.0	9
10	IBADAN	272	0.7	0.6	4.8	-	1.1	5.9	53.7	2.2	2.6	58.5	33.5	0.7	1.5	35.7	91.9	2.9	5.1	100.0	10
11	LUSAKA	295	1.7	0.7	1.7	-	-	1.7	54.6	8.6	-	63.2	28.9	6.2	-	35.1	85.2	17.8	-	100.0	11
12	BARODA	310	0.2	0.6	28.1	2.6	-	30.6	54.5	2.3	1.0	57.7	10.6	1.0	-	11.6	93.2	5.8	1.0	100.0	12
13	BOMBAY-1	300	1.7	0.6	25.3	3.3	2.3	31.0	57.7	4.0	3.0	64.7	3.7	-	0.7	4.3	86.7	7.3	6.0	100.0	13
14	BOMBAY-2	299	0.3	0.6	29.1	1.7	-	30.8	54.5	1.0	-	55.5	13.7	-	-	13.7	97.3	2.7	-	100.0	14
15	MANIPAL	299	3.5	1.0	22.6	2.4	7.4	32.4	38.2	1.4	7.8	47.3	13.5	1.7	5.1	20.3	74.3	5.4	20.3	100.0	15
16	COLOMBO-1	294	1.8	1.2	27.6	17.0	-	44.6	33.3	13.6	-	46.9	6.5	2.0	-	8.5	67.3	32.7	-	100.0	16
17	COLOMBO-2	309	0.7	0.8	30.2	6.8	0.7	37.7	47.1	3.6	0.6	51.3	9.7	1.3	-	11.0	87.0	11.7	1.3	100.0	17
18	SINGAPORE	399	1.1	0.7	35.8	6.3	0.5	42.6	46.4	5.3	0.5	52.1	3.8	1.5	-	5.3	86.0	13.0	1.0	100.0	18
19	BANDUNG	318	0.3	0.7	32.0	0.3	0.3	32.7	36.9	2.9	0.3	40.1	24.9	1.6	0.6	27.2	93.8	4.9	1.3	100.0	19
20	MANILA	320	0.2	0.6	42.2	1.3	-	43.4	40.3	1.3	-	41.6	15.0	-	-	15.0	97.5	2.5	-	100.0	20
	Column		575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	

Figure 39

Figure 40

1) Anemia, Hypertension, Toxemia, Haemorrhage, Hyperemesis, Genital Tract Disease, Systemic Disease
2) For other diseases

PANEL 35 ANTENATAL CONDITIONS - V
Three Considerations
(Cf. Tab. 2.1, 2.5, Col. 593-613)

	PLACE	Number of Women	DURATION OF PREGNANCY IN COMPLETED WEEKS (a40) Mean	Median	<28	28-31	32-35	36-37	38	39	40	41-42	>42	DURATION OF PREGNANCY BY PARITY (a40[20]) PRIMIPARAS P=1 Completed Weeks ≤37	38-40	41+	MULTIPARAS P=2+ Completed Weeks ≤37	38-40	41+	ALL PARITIES Completed Weeks ≤37	38-40	41+	Haemoglobin at Admission (a41) Grams per 100 ml Mean	Median	
					100%									100%			100%			100%					
1	CHAPEL HILL	272	38.8	39.9	0.7	2.9	7.0	14.0	27.2		26.1	18.4	3.7	22.[illegible]	52.3	25.0	26.6	53.8	19.6	24.7	53.1	22.1	12.3	12.7	1
2	BALTIMORE	294	39.2	40.1	0.3	3.1	4.4	11.6	29.3		25.9	19.4	6.1	21.7	54.8	23.5	16.4	55.5	28.1	19.4	55.1	25.5	11.6	12.1	2
3	STOCKHOLM	319	39.5	40.0	0.3	0.6	0.6	2.8	43.9		36.4	15.0	0.3	5.8	82.6	11.6	2.7	77.4	19.9	4.4	80.2	15.4	12.0	12.5	3
4	GENEVA	357	38.6	39.3	0.8	1.1	2.5	15.4	46.8		21.8	11.2	0.3	18.9	67.4	13.7	21.0	69.9	9.2	19.9	68.6	11.5	12.4	12.9	4
5	DEBRECEN SZEGED	314	38.8	39.8	0.6	1.9	3.8	8.6	39.5		31.8	13.4	0.3	14.3	72.1	13.6	15.6	70.6	13.8	15.0	71.3	13.7	11.6	12.2	5
6	CAIRO	303	39.2	40.4	-	2.3	1.7	4.0	12.9		78.9	-	0.3	6.9	93.1	-	8.2	91.3	0.5	7.9	91.8	0.3	11.0	11.0	6
7	ASSIUT	295	39.5	40.4	-	2.4	1.4	2.4	5.8		87.8	-	0.3	6.1	93.6	0.3	6.8	92.8	0.4	6.1	93.6	0.3	8.4	8.5	7
8	KHARTOUM	469	39.2	40.3	0.2	1.7	1.3	5.8	20.0		67.6	3.2	0.2	8.4	90.8	0.8	9.3	86.4	4.3	9.0	87.6	3.4	10.5	11.1	8
9	ACCRA	293	37.7	38.5	-	1.4	2.7	17.7	62.5		15.7	-	-	15.2	84.8	-	26.3	73.7	-	21.8	78.2	-	10.3	10.7	9
10	IBADAN	272	38.4	38.7	-	0.4	2.2	14.3	50.4		30.5	1.8	0.4	25.0	75.0	-	16.5	81.2	2.3	16.9	80.9	2.2	11.6	12.2	10
11	LUSAKA	295	37.2	38.4	0.3	2.4	10.8	10.8	73.6		2.0	-	-	20.0	80.0 (m=16, m=5)	-	24.1	75.9	-	24.4	75.6	-	. . na . .		11
12	BARODA	310	36.6	37.5	0.3	5.5	15.2	29.4	29.4		20.3	-	-	52.6	47.4	-	49.3	50.7	-	50.3	49.7	-	10.0	10.6	12
13	BOMBAY-1	300	38.3	39.4	0.7	3.3	5.0	12.0	46.7		26.3	5.3	0.7	29.0	64.5	6.5	17.4	76.8	5.8	21.0	73.0	6.0	9.8	10.4	13
14	BOMBAY-2	299	37.9	40.1	-	1.0	7.4	36.5	2.0		52.5	-	0.7	64.1	34.8	1.1	36.2	63.3	0.5	44.8	54.5	0.7	9.9	10.5	14
15	MANIPAL	299	38.4	40.0	0.3	1.7	8.0	10.0	27.8		52.2	-	-	20.8	79.2	-	19.0	81.0	-	20.1	79.9	-	9.8	10.5	15
16	COLOMBO-1	294	39.4	40.2	-	0.3	3.1	10.9	28.6		37.1	17.3	2.7	19.9	59.5	20.6	9.8	70.6	19.6	14.3	65.7	20.1	10.1	10.6	16
17	COLOMBO-2	320	38.8	40.0	0.3	1.6	3.9	12.6	32.0		42.1	7.1	0.3	19.8	73.3	6.9	17.2	75.0	7.8	18.5	74.1	7.4	9.3	8.7	17
18	SINGAPORE	399	39.2	39.8	-	0.8	2.3	10.3	41.9		27.8	14.5	2.5	13.5	70.5	16.5	13.1	69.4	17.5	13.3	69.7	17.0	10.9	11.3	18
19	BANDUNG	318	38.8	40.0	-	0.6	7.9	10.1	32.1		41.2	7.5	0.6	23.8	70.3	5.9	16.4	74.5	9.1	18.5	73.3	8.2	9.2	8.9	19
20	MANILA	320	38.1	39.2	0.6	2.5	10.3	12.5	43.8		23.7	5.6	0.9	34.5	59.7	5.8	19.3	73.5	7.2	25.9	67.5	6.6	9.7	8.9	20
	Column		593	594	595	596	597	598	599		600	601	602	603	604	605	606	607	608	609	610	611	612	613	
			Figure 41											Figure 43						Figure 42			Figure 44		

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3.3.2 INTRAPARTUM

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PANEL 38: CONDITIONS OF LABOUR
Three Considerations
(Cl. Tab. 2.2, 2.3, 2.4; Col. 614-634)

	PLACE	Number of Women	TYPE OF PRESENTATION DURING LABOUR (Q33)									ARTIFICIAL RUPTURE OF MEMBRANES (Q34)						OXYTOCICS ADMINISTERED (Q35)						
			Vertex (OA/T) 1)	Vertex (OP) 2)	Breech	Face	Brow	Trans-verse	Compound	Other	Unknown	None	Labour Induction	Labour Acceleration	Because of Complications	Other	Unknown	None	Induction	Acceleration	Complications	Other	Unknown	
			100%									100%						100%						
1	CHAPEL HILL	272	82.7	5.9	6.3	0.4	-	0.4	0.4	-	4.0	69.9	3.7	26.1	-	0.4	-	72.8	14.0	13.2	-	-	-	1
2	BALTIMORE	294	84.4	12.9	2.7	-	-	-	-	-	-	79.9	1.0	19.0	-	-	-	86.4	10.5	3.1	-	-	-	2
3	STOCKHOLM	319	84.0	8.8	4.1	-	-	0.3	-	2.2	0.6	63.6	0.6	35.4	-	-	0.3	85.9	5.6	7.8	-	0.6	-	3
4	GENEVA	357	89.6	3.9	6.2	-	-	-	-	-	0.3	59.1	3.6	37.3	-	-	-	71.4	16.8	11.8	-	-	-	4
5	DEBRECEN SZEGED	314	88.9	3.5	6.4	-	-	0.6	-	0.6	-	44.3	9.9	44.9	1.0	-	-	71.7	8.0	13.4	7.0	-	-	5
6	CAIRO	303	69.3	19.1	8.6	1.0	-	1.3	0.3	-	0.3	97.4	1.3	1.0	-	-	0.3	84.8	3.3	10.9	0.7	-	0.3	6
7	ASSIUT	295	82.7	13.6	2.7	1.0	-	-	-	-	-	93.6	1.7	4.1	0.7	-	-	90.5	0.7	8.8	-	-	-	7
8	KHARTOUM	469	87.8	5.1	5.3	0.2	0.2	0.4	0.2	0.4	0.2	93.0	4.5	1.7	0.4	0.2	0.2	89.1	7.5	3.0	-	0.2	0.2	8
9	ACCRA	293	88.4	6.1	4.4	0.3	-	0.3	-	-	0.3	82.6	12.3	1.0	-	-	4.1	-	-	-	-	99.3	0.7	9
10	IBADAN	272	79.0	16.5	3.3	0.7	-	-	-	0.4	-	91.9	3.7	4.4	-	-	-	96.0	2.2	0.7	1.1	-	-	10
11	LUSAKA	295	97.6	1.4	1.0	-	-	-	-	-	-	92.2	5.4	0.3	1.4	0.3	0.3	92.9	5.1	0.3	1.4	0.3	-	11
12	BARODA	310	91.3	3.5	1.6	0.6	-	2.3	-	0.6	-	97.4	-	2.3	0.3	-	-	92.6	0.6	5.2	1.0	0.6	-	12
13	BOMBAY-1	300	90.7	2.3	4.7	0.3	-	1.7	0.3	-	-	97.0	-	0.7	2.0	0.3	-	99.0	0.3	-	0.7	-	-	13
14	BOMBAY-2	299	95.3	-	3.3	0.3	-	0.3	0.7	-	-	99.7	-	0.3	-	-	-	98.7	1.0	0.3	-	-	-	14
15	MANIPAL	299	97.3	-	2.3	-	-	-	0.3	-	-	88.6	2.7	8.7	-	-	-	69.2	2.0	18.4	10.4	-	-	15
16	COLOMBO-1	294	89.1	6.1	3.7	-	-	-	0.7	-	0.3	77.6	11.2	10.5	-	0.3	0.3	78.9	0.7	19.4	-	0.7	0.3	16
17	COLOMBO-2	309	91.3	2.6	4.9	0.3	-	0.3	-	0.6	-	75.7	12.3	12.0	-	-	-	70.9	3.6	23.9	1.6	-	-	17
18	SINGAPORE	399	91.0	1.3	6.8	-	-	0.3	-	0.8	-	34.6	9.3	56.1	-	-	-	79.4	4.5	15.3	-	-	0.8	18
19	BANDUNG	318	84.6	2.2	4.7	0.3	0.3	2.2	-	5.7	-	80.8	6.3	11.3	1.6	-	-	88.4	6.3	4.4	0.9	-	-	19
20	MANILA	320	95.9	-	3.7	0.3	-	-	-	-	-	99.1	-	0.6	0.3	-	-	99.7	-	-	0.3	-	-	20
	Column		614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	
				Figure 51									Figure 53						Figure 54					

1) Vertex, occiput anterior or transverse
2) Vertex, occiput posterior

PANEL 37: CONDITIONS OF DELIVERY - I
Three Considerations
(Cl. Tab. 3.1, 2.6; Col. 635-657)

	PLACE	Number of Women	ATTENDANT AT DELIVERY: None	Nurse	Midwife	Student Nurse/ Midwife	Para-Medic	Medical Student	Physician	Other	Unknown	TYPE OF LABOUR & DELIVERY — SPONTANEOUS LABOUR: Delivery: Sponta-neous	Forceps/ Vacuum	Caesarean	SUB TOTAL	INDUCED LABOUR: Delivery: Sponta-neous	Forceps/ Vacuum	Caesarean	SUB TOTAL	NO LABOR: Caesarean	Other Delivery	TYPE OF DELIVERY: Sponta-neous	Forceps/ Vacuum	Caesarean	Other	
			100%									100%				100%						100%				
1	CHAPEL HILL	272	0.4	0.4	-	0.4	-	12.5	86.4	-	-	53.7	13.6	8.8	76.1	7.4	1.5	4.8	13.6	9.2	1.1	61.0	15.1	22.8	1.1	1
2	BALTIMORE	294	1.7	-	1.4	1.4	-	0.3	94.9	-	0.3	61.2	20.4	4.1	85.7	7.1	2.7	-	9.9	3.7	0.7	68.4	23.1	7.8	0.7	2
3	STOCKHOLM	319	15.0	0.9	58.3	11.6	-	0.3	9.4	3.8	0.6	81.2	3.8	1.6	86.5	6.0	0.6	1.9	8.5	5.0	-	87.1	4.4	8.5	-	3
4	GENEVA	357	-	-	-	-	-	-	99.7	-	0.3	64.1	12.6	1.7	78.4	9.0	2.2	1.7	12.9	4.5	4.2	73.1	14.8	7.9	4.2	4
5	DEBRECEN/ SZEGED	314	1.3	0.3	-	-	0.3	-	61.6	36.6	0.3	82.8	4.5	3.2	90.4	5.7	1.0	0.6	7.3	1.6	0.6	88.5	5.5	5.4	0.6	5
6	CAIRO	303	6.9	1.7	-	0.7	-	-	90.1	0.3	0.3	84.2	5.0	6.9	96.0	0.3	1.0	-	1.3	0.3	2.3	84.5	5.9	7.3	2.3	6
7	ASSIUT	295	18.6	6.1	25.4	1.7	2.4	-	34.2	11.2	0.3	88.1	6.8	2.7	97.6	1.0	-	0.7	1.7	0.3	0.3	89.2	6.8	3.7	0.3	7
8	KHARTOUM	469	4.5	13.9	61.6	-	-	-	15.1	4.9	-	80.2	3.2	11.1	94.5	1.1	-	1.5	2.6	3.0	-	81.2	3.2	15.6	-	8
9	ACCRA	293	2.0	3.4	74.4	3.8	-	-	16.4	-	-	84.6	2.7	9.6	96.9	1.0	-	1.0	2.0	0.7	0.3	85.7	2.7	11.3	0.3	9
10	IBADAN	272	5.9	-	73.5	12.1	-	2.6	5.5	-	0.4	94.1	0.7	1.5	96.3	1.5	0.4	0.7	2.6	0.7	0.4	95.6	1.1	2.9	0.4	10
11	LUSAKA	295	7.1	28.1	32.2	5.1	0.3	6.1	21.0	-	-	83.7	3.7	1.4	88.8	0.3	-	7.8	8.1	-	3.1	84.0	3.7	9.2	3.1	11
12	BARODA	310	-	7.7	1.9	18.4	-	5.5	66.1	0.3	-	90.0	3.2	3.9	97.1	-	-	0.3	0.3	0.3	2.3	90.0	3.2	4.5	2.3	12
13	BOMBAY-1	300	4.0	0.3	7.0	72.0	-	-	16.7	-	-	90.3	3.3	5.0	98.7	0.3	-	-	0.3	0.3	0.7	90.7	3.3	5.3	0.7	13
14	BOMBAY-2	299	4.3	56.5	1.3	23.1	0.3	3.7	10.4	0.3	-	94.6	1.7	2.3	98.7	-	-	0.7	0.7	-	0.7	94.6	1.7	3.0	0.7	14
15	MANIPAL	299	-	-	-	-	0.7	-	99.3	-	-	74.9	13.0	6.4	94.3	1.3	0.3	0.3	2.0	2.7	1.0	76.2	13.4	9.4	1.0	15
16	COLOMBO-1	294	0.3	0.7	64.6	19.4	-	-	14.6	-	0.3	81.3	2.0	2.7	86.1	7.8	0.7	1.0	9.5	4.4	-	89.1	2.7	8.2	-	16
17	COLOMBO-2	309	0.3	7.1	61.2	20.4	-	-	10.7	-	0.3	85.1	2.3	4.2	91.6	7.1	1.0	-	8.1	0.3	-	92.2	3.3	4.5	-	17
18	SINGAPORE	399	2.3	4.0	45.9	9.0	-	1.0	37.8	-	-	67.9	12.3	6.5	86.7	6.0	1.3	2.0	9.3	3.8	0.3	73.9	13.5	12.3	0.3	18
19	BANDUNG	318	2.5	0.3	3.1	1.6	0.9	13.2	78.3	-	-	71.1	4.1	5.0	80.2	11.3	2.5	1.9	15.7	-	4.1	82.4	6.6	6.9	4.1	19
20	MANILA	320	0.6	-	-	63.1	-	16.9	19.4	-	-	91.6	1.9	1.9	95.3	-	-	0.3	0.3	1.3	3.1	91.6	1.9	3.4	3.1	20
	Column		635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	

Figure 62

Figure 55

Figure 57

Figure 59

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Panel 38: CONDITIONS OF DELIVERY – II
Four Considerations
(CLTab. 3.3, 3.4, 3.5, 3.6; Col. 658-681)

	PLACE	Number of Women	PRIMARY COMPLICATION OF DELIVERY (Q37)									UMBILICAL CORD (Q38)									POSTPARTUM MATERNAL STATUS (Q46)				BLOOD TRANSFUSION (Q47)		
			None	Premature Rupture of Membranes	Prolonged Labour	Obstructed Labour	Abnormal Uterine Contractions	PPH/RET Placenta 1)	Placenta Praevia	Maternal Injury	Other	No Abnormalities	Cord Presentation	Cord Prolapse	Short Cord 2)	Long Cord 3)	Loops Around Neck	True Knots	Insertion Abnormalities	Other	Normal	Complications without Treatment	Complications with Treatment	Death	NO	YES	
1	CHAPEL HILL	272	64.7	17.6	1.1	1.5	1.5	0.4	1.5	5.1	6.6	86.4	–	0.4	–	–	11.8	0.4	–	1.1	89.7	1.5	8.8	–	93.7	6.3	1
2	BALTIMORE	294	74.8	11.2	5.1	–	1.0	0.3	–	–	7.5	100.0	–	–	–	–	–	–	–	–	92.9	1.4	5.8	–	100.0	–	2
3	[illegible]	310	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.3	0.3	0.6	4.1	3.1	0.3	0.6	2.5	93.4	–	6.6	–	98.4	1.6	3
4	GENEVA	357	62.2	28.3	0.8	3.4	0.3	3.6	0.8	0.6	–	89.1	–	–	–	0.3	9.2	0.6	0.8	–	82.4	–	17.6	–	92.4	7.6	4
5	DEBRECEN SZEGED	314	58.0	20.1	1.9	0.6	7.6	2.9	–	4.8	4.1	85.7	–	1.0	1.0	–	11.8	0.6	–	–	92.3	1.0	6.7	–	97.5	2.5	5
6	CAIRO	303	73.9	15.2	2.3	1.3	–	1.0	1.3	0.7	4.3	90.8	–	1.3	2.3	3.0	1.7	1.0	–	–	96.4	1.3	2.0	0.3	96.0	4.0	6
7	ASSIUT	295	76.6	5.4	11.2	2.4	0.7	2.0	–	1.4	0.3	97.6	0.3	–	0.3	0.3	0.7	0.7	–	–	85.4	7.5	7.1	–	98.3	1.7	7
8	KHARTOUM	469	82.3	2.1	3.4	3.8	0.2	1.1	0.6	0.9	5.5	98.9	0.2	0.6	–	–	0.2	–	–	–	96.9	0.4	2.3	0.4	89.1	10.9	8
9	ACCRA	293	71.0	10.2	5.1	3.8	2.4	2.4	2.0	1.0	2.0	98.3	0.3	0.7	–	0.3	0.3	–	–	–	92.6	1.0	6.1	0.3	95.6	4.4	9
10	IBADAN	272	91.9	1.8	2.2	0.7	0.4	1.8	–	–	1.1	99.3	–	–	–	–	0.7	–	–	–	99.6	0.4	–	–	96.7	3.3	10
11	LUSAKA	295	67.8	2.4	25.4	0.3	2.4	–	1.0	–	0.7	58.7	11.2	0.7	3.7	20.0	5.4	–	0.3	–	98.3	0.3	1.4	–	95.6	4.4	11
12	BARODA	310	80.6	1.3	2.3	1.3	0.3	1.3	1.6	10.0	1.3	91.0	0.3	0.3	–	0.3	7.7	–	0.3	–	93.9	0.6	5.5	–	96.8	3.2	12
13	BOMBAY-1	300	90.0	1.0	2.7	2.7	–	0.3	1.0	0.3	2.0	99.3	–	–	–	0.3	0.3	–	–	–	98.4	–	1.3	0.3	96.3	3.7	13
14	BOMBAY-2	299	93.3	0.3	2.0	0.7	–	–	1.3	–	2.3	98.7	0.3	0.3	–	–	–	–	–	0.7	98.3	–	1.7	–	99.7	0.3	14
15	MANIPAL	299	65.6	0.7	1.7	7.4	17.4	2.0	0.3	–	5.0	97.3	–	1.3	0.7	–	–	0.7	–	–	97.4	–	2.3	0.3	96.3	3.7	15
16	COLOMBO-1	294	42.5	1.0	6.8	–	–	1.4	–	8.5	39.8	94.9	–	0.3	–	–	4.8	–	–	–	90.8	1.0	8.2	–	98.0	2.0	16
17	COLOMBO-2	309	66.3	2.3	2.6	1.3	–	3.2	0.3	22.3	1.6	93.5	–	0.3	0.6	1.3	3.9	0.3	–	–	94.2	2.9	2.9	–	99.4	0.6	17
18	SINGAPORE	399	82.0	0.5	7.8	0.3	–	4.0	0.8	–	4.8	96.2	–	0.5	–	–	2.8	–	–	0.5	95.5	1.0	3.5	–	97.2	2.8	18
19	BANDUNG	318	73.0	3.8	3.1	1.3	4.7	3.8	6.3	0.3	3.8	92.5	–	0.6	–	0.6	5.7	–	–	0.6	86.2	2.5	11.0	0.3	85.8	14.2	19
20	MANILA	320	91.9	0.9	1.3	–	–	0.3	0.6	0.3	4.7	99.4	0.6	–	–	–	–	–	–	–	98.7	–	1.3	–	98.1	1.9	20
	Column		658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	
			Figure 64				Figure 69							Figure 67							Figure 68				Figure 69		

1) Postpartum Haemorrhage/Retained Placenta
2) Short cord: Up to 12 inches or 30 cms
3) Long cord: More than 30 inches or 75 cms

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PANEL 39: TYPE OF DELIVERY
By Type of Labour
(Cl.Tab. 4, Col. 682-698)

TYPE OF DELIVERY BY TYPE OF LABOUR

	PLACE	Number of Women	SPONTANEOUS LABOUR: Spontaneous #	%	Forceps/Vacuum #	%	Caesarean #	%	TOTAL #	%	INDUCED LABOUR: Spontaneous #	%	Forceps/Vacuum #	%	Caesarean #	%	TOTAL #	%	NO LABOUR: Spontaneous #	%	Forceps/Vacuum #	%	Caesarean #	%	TOTAL #	%	ALL LABOURS: Spontaneous #	%	Forceps/Vacuum #	%	Caesarean #	%	Unknown #	%	TOTAL #	%	
1	CHAPEL HILL	272	146	70.5	37	17.9	24	11.6	207	100.0	20	54.1	4	10.8	13	35.1	37	100.0	-	-	-	-	25	100.0	25	100.0	166	61.0	41	15.1	62	22.8	3	1.1	272	100.0	1
2	BALTIMORE	294	180	71.4	60	23.8	12	4.8	252	100.0	21	72.4	8	27.6	-	-	29	100.0	-	-	-	-	11	100.0	11	100.0	201	68.4	68	23.1	23	7.8	2	0.7	294	100.0	2
3	STOCKHOLM	319	259	93.8	12	4.3	5	1.8	276	100.0	19	70.4	2	7.4	6	22.2	27	100.0	-	-	-	-	16	100.0	16	100.0	278	87.1	14	4.4	27	8.5	-	-	319	100.0	3
4	GENEVA	357	229	81.8	45	16.1	6	2.1	280	100.0	32	69.6	8	17.4	6	13.0	46	100.0	-	-	-	-	16	100.0	16	100.0	261	73.1	53	14.8	28	7.8	15	4.2	357	100.0	4
5	DEBRECEN SZEGED	314	260	91.5	14	4.9	10	3.5	284	100.0	18	78.3	3	13.0	2	8.7	23	100.0	-	-	-	-	5	100.0	5	100.0	278	88.5	17	5.4	17	5.4	2	0.6	314	100.0	5
6	CAIRO	303	255	87.6	15	5.2	21	7.2	291	100.0	1	25.0	3	75.0	-	-	4	100.0	-	-	-	-	1	100.0	1	100.0	256	84.5	18	5.9	22	7.3	7	2.3	303	100.0	6
7	ASSIUT	295	260	90.3	20	6.9	8	2.8	288	100.0	3	60.0	-	-	2	40.0	5	100.0	-	-	-	-	1	100.0	1	100.0	263	89.2	20	6.8	11	3.7	1	0.3	295	100.0	7
8	KHARTOUM	469	376	84.9	15	3.4	52	11.8	443	100.0	5	41.7	-	-	7	58.3	12	100.0	-	-	-	-	14	100.0	14	100.0	381	81.2	15	3.2	73	15.6	-	-	469	100.0	8
9	ACCRA	293	248	87.3	8	2.8	28	9.9	284	100.0	3	50.0	-	-	3	50.0	6	100.0	-	-	-	-	2	100.0	2	100.0	251	85.7	8	2.7	33	11.3	1	0.3	293	100.0	9
10	IBADAN	272	256	97.7	2	0.8	4	1.5	262	100.0	4	57.1	1	14.3	2	28.6	7	100.0	-	-	-	-	2	100.0	2	100.0	260	95.6	3	1.1	8	2.9	1	0.4	272	100.0	10
11	OSAKA	295	247	94.3	11	4.2	4	1.5	262	100.0	1	4.2	-	-	23	95.8	24	100.0	-	-	-	-	-	-	-	-	248	84.1	11	3.7	27	9.2	9	3.1	295	100.0	11
12	BARODA	310	279	92.7	10	3.3	12	4.0	301	100.0	-		-		1	100.0	1	100.0	-	-	-	-	1	100.0	1	100.0	279	90.0	10	3.2	14	4.5	7	2.3	310	100.0	12
13	BOMBAY-1	300	271	91.6	10	3.4	15	5.1	296	100.0	1	100.0	-		-		1	100.0	-	-	-	-	1	100.0	1	100.0	272	90.7	10	3.3	16	5.3	2	0.7	300	100.0	13
14	BOMBAY-2	299	283	95.9	5	1.7	7	2.4	295	100.0	-		-		2	100.0	2	100.0	-	-	-	-	-	-	-	-	283	94.6	5	1.7	9	3.0	2	0.7	299	100.0	14
15	MUNICIPAL	299	224	79.4	39	13.8	19	6.7	282	100.0	4	66.7	1	16.7	1	16.7	6	100.0	-	-	-	-	8	100.0	8	100.0	228	76.3	40	13.4	28	9.4	3	1.0	299	100.0	15
16	COLOMBO-1	294	239	94.5	6	2.4	8	3.2	253	100.0	23	82.2	2	7.1	3	10.7	28	100.0	-	-	-	-	13	100.0	13	100.0	262	89.1	8	2.7	24	8.2	-	-	294	100.0	16
17	COLOMBO-2	309	263	92.9	7	2.5	13	4.6	283	100.0	22	88.0	3	12.0	-	-	25	100.0	-	-	-	-	1	100.0	1	100.0	285	92.2	10	3.2	14	4.5	-	-	309	100.0	17
18	SINGAPORE	399	271	78.3	49	14.2	26	7.5	346	100.0	24	64.9	5	13.5	8	21.6	37	100.0	-	-	-	-	15	100.0	15	100.0	295	73.9	54	13.5	49	12.3	1	0.3	399	100.0	18
19	BANDUNG	318	226	88.6	13	5.1	16	6.3	255	100.0	36	72.0	8	16.0	6	12.0	50	100.0	-	-	-	-	-	-	-	-	262	82.4	21	6.6	22	6.9	13	4.1	318	100.0	19
20	MANILA	320	293	96.1	6	2.0	6	2.0	305	100.0	-		-		1	100.0	1	100.0	-	-	-	-	4	100.0	4	100.0	293	91.6	6	1.9	11	3.4	10	3.1	320	100.0	20
	Column		682		683		684		685		686		687		688		689		690		691		692		693		694		695		696		697		698		

Figure 58 — Figure 59 — Figure 57

PANEL 40 TYPE OF PRESENTATION
By Type of Delivery
(Cl.Tab. 5, Col. 695 730)

0 33136

TYPE OF PRESENTATION BY TYPE OF DELIVERY
(Percent & Number)

	PLACE	Number of Women	SPONTANEOUS DELIVERY: Vertex Occiput Ant/Tran	Vertex Occiput Post.	Breech	Face	Brow	Transverse	Compound/Other	TOTAL	FORCEPS/VACUUM DELIVERY: Vertex Occiput Ant/Tran	Vertex Occiput Post.	Breech	Face	Brow	Transverse	Compound/Other	TOTAL	CAESAREAN SECTION: Vertex Occiput Ant/Tran	Vertex Occiput Post.	Breech	Face	Brow	Transverse	Compound/Other	TOTAL	ALL DELIVERIES 1): Vertex Occiput Ant/Tran	Vertex Occiput Post.	Breech	Face	Brow	Transverse	Compound/Other	TOTAL	
1	CHAPEL HILL	272	93.9	4.3	1.8	-	-	-	-	100.0	79.5	10.3	7.7	-	-	2.6	-	100.0	69.6	8.9	17.9	1.8	-	-	1.8	100.0	86.2	6.1	6.5	0.4	-	0.4	0.4	100.0	1
			154	7	3	-	-	-	-	164	31	4	3	-	-	1	-	39	39	5	10	1	-	-	1	56	225	16	17	1	-	1	1	261	
2	BALTIMORE	294	93.0	6.0	1.0	-	-	-	-	100.0	67.6	32.4	-	-	-	-	-	100.0	65.2	17.4	17.4	-	-	-	-	100.0	84.4	12.9	2.7	-	-	-	-	100.0	2
			187	12	2	-	-	-	-	201	46	22	-	-	-	-	-	68	15	4	4	-	-	-	-	23	248	38	8	-	-	-	-	294	
3	STOCKHOLM	319	88.4	8.3	2.9	-	-	-	0.4	100.0	85.7	14.3	-	-	-	-	-	100.0	42.3	11.5	19.2	-	-	3.8	23.1	100.0	84.5	8.8	4.1	-	-	0.3	2.2	100.0	3
			245	23	8	-	-	-	1	277	12	2	-	-	-	-	-	14	11	3	5	-	-	1	6	26	268	28	13	-	-	1	7	317	
4	GENEVA	357	96.1	3.5	0.4	-	-	-	-	100.0	90.6	9.4	-	-	-	-	-	100.0	78.6	-	21.4	-	-	-	-	100.0	89.9	3.9	6.2	-	-	-	-	100.0	4
			250	9	1	-	-	-	-	260	48	5	-	-	-	-	-	53	22	-	6	-	-	-	-	28	320	14	22	-	-	-	-	356	
5	DEBRECEN SZEGED	314	92.5	3.2	3.6	-	-	-	0.7	100.0	88.2	11.8	-	-	-	-	-	100.0	41.2	-	47.1	-	-	11.7	-	100.0	88.9	3.5	6.4	-	-	0.6	0.6	100.0	5
			257	9	10	-	-	-	2	278	15	2	-	-	-	-	-	17	7	-	8	-	-	2	-	17	279	11	20	-	-	2	2	[illegible]	
6	CAIRO	303	72.2	18.4	8.2	0.8	-	-	0.4	100.0	72.2	22.2	5.6	-	-	-	-	100.0	54.6	27.3	9.1	6.5	-	4.5	-	100.0	69.5	19.2	8.6	1.0	-	1.3	0.3	100.0	6
			184	47	21	2	-	-	1	255	13	4	1	-	-	-	-	18	12	6	2	1	-	1	-	22	210	58	26	3	-	4	1	302	
7	ASSIUT	295	85.9	11.4	2.3	0.4	-	-	-	100.0	65.0	35.0	-	-	-	-	-	100.0	45.4	27.3	9.1	18.2	-	-	-	100.0	82.7	13.6	2.7	1.0	-	-	-	100.0	7
			226	30	6	1	-	-	-	263	13	7	-	-	-	-	-	20	5	3	1	2	-	-	-	11	244	40	8	3	-	-	-	295	
8	KHARTOUM	469	90.3	3.4	5.5	-	-	-	0.8	100.0	86.7	13.3	-	-	-	-	-	100.0	76.4	12.5	5.5	1.4	1.4	2.8	-	100.0	88.1	5.1	5.3	0.2	0.2	0.4	0.6	100.0	8
			344	13	21	-	-	-	3	381	13	2	-	-	-	-	-	15	55	9	4	1	1	2	-	72	412	24	25	1	1	2	3	468	
9	ACCRA	293	89.6	5.6	4.8	-	-	-	-	100.0	100.0	-	-	-	-	-	-	100.0	78.8	12.1	3.0	3.0	-	3.0	-	100.0	88.7	6.2	4.4	0.3	-	0.3	-	100.0	9
			224	14	12	-	-	-	-	250	8	-	-	-	-	-	-	8	26	4	1	1	-	1	-	33	259	18	13	1	-	1	-	292	
10	IBADAN	272	80.4	15.8	2.7	0.8	-	-	0.4	100.0	33.3	66.7	-	-	-	-	-	100.0	50.0	25.0	25.0	-	-	-	-	100.0	79.0	16.5	3.3	0.7	-	-	0.4	100.0	10
			209	41	7	2	-	-	1	260	1	2	-	-	-	-	-	3	3	2	2	-	-	-	-	8	215	45	9	2	-	-	1	[illegible]	
11	LUSAKA	295	98.4	1.2	0.4	-	-	-	-	100.0	100.0	-	-	-	-	-	-	100.0	100	-	-	-	-	-	-	100.0	97.6	1.4	1.0	-	-	-	-	100.0	11
			244	3	1	-	-	-	-	248	11	-	-	-	-	-	-	11	27	-	-	-	-	-	-	27	288	4	3	-	-	-	-	295	
12	BARODA	310	95.3	1.4	1.1	0.7	-	1.1	0.4	100.0	80.0	10.0	-	-	-	-	10.0	100.0	64.3	28.6	-	-	-	7.1	-	100.0	91.3	3.5	3.6	0.6	-	2.3	0.6	100.0	12
			246	4	3	2	-	3	1	279	8	1	-	-	-	-	1	10	9	4	-	-	-	1	-	14	283	11	5	2	-	7	2	310	
13	BOMBAY-1	100	92.6	1.8	5.1	0.4	-	-	-	100.0	80.0	20.0	-	-	-	-	-	100.0	75.0	-	-	-	-	18.8	6.2	100.0	90.7	2.3	4.7	0.3	-	1.7	0.3	100.0	13
			252	5	14	1	-	-	-	272	8	2	-	-	-	-	-	10	12	-	-	-	-	3	1	16	272	7	14	1	-	5	1	[illegible]	
14	BOMBAY-2	299	95.8	-	3.2	0.3	-	-	0.7	100.0	100.0	-	-	-	-	-	-	100.0	77.8	-	11.1	-	-	11.1	-	100.0	95.3	-	3.3	0.3	-	0.3	0.7	100.0	14
			271	-	9	1	-	-	2	283	5	-	-	-	-	-	-	5	7	-	1	-	-	1	-	9	285	-	10	1	-	1	2	[illegible]	
15	MANIPAL	299	98.2	-	1.8	-	-	-	-	100.0	100.0	-	-	-	-	-	-	100.0	89.3	-	7.1	-	-	-	3.6	100.0	97.3	-	2.3	-	-	-	0.3	100.0	15
			224	-	4	-	-	-	-	228	40	-	-	-	-	-	-	40	25	-	2	-	-	-	1	28	291	-	7	-	-	-	1	[illegible]	
16	COLOMBO-1	294	92.3	3.4	3.4	-	-	-	0.8	100.0	50.0	37.5	12.5	-	-	-	-	100.0	70.8	25.0	4.2	-	-	-	-	100.0	89.4	6.1	3.8	-	-	-	0.7	100.0	16
			241	9	9	-	-	-	2	261	4	3	1	-	-	-	-	8	17	6	1	-	-	-	-	24	262	18	11	-	-	-	2	295	
17	COLOMBO-2	309	93.7	1.8	3.9	0.3	-	-	3	100.0	50.0	30.0	20.0	-	-	-	-	100.0	71.4	-	14.3	-	-	7.1	7.1	100.0	91.3	2.6	4.9	0.3	-	0.3	0.6	100.0	17
			267	5	11	1	-	-	1	285	5	3	2	-	-	-	-	10	10	-	2	-	-	1	1	14	282	8	15	1	-	1	2	[illegible]	
18	SINGAPORE	399	96.6	1.4	2.0	-	-	-	-	100.0	81.5	1.8	16.7	-	-	-	-	100.0	69.4	-	22.4	-	-	2.0	6.1	100.0	91.0	1.3	6.8	-	-	0.2	0.8	100.0	18
			285	4	6	-	-	-	-	295	44	1	9	-	-	-	-	54	34	-	11	-	-	1	3	49	363	5	27	-	-	1	3	[illegible]	
19	BANGKOK	318	93.1	1.1	4.6	0.4	0.4	-	0.4	100.0	81.0	19.0	-	-	-	-	-	100.0	18.2	-	4.5	-	-	9.1	68.2	100.0	84.6	2.2	4.7	0.3	0.3	2.2	5.7	100.0	19
			244	3	12	1	1	-	1	262	17	4	-	-	-	-	-	21	4	-	1	-	-	2	15	22	269	7	15	1	1	7	16	316	
20	MANILA	320	99.3	-	0.3	0.3	-	-	-	100.0	100.0	-	-	-	-	-	-	100.0	91.0	9.0	-	-	-	-	-	100.0	96.0	-	3.8	0.3	-	-	-	100.0	20
			291	-	1	1	-	-	-	293	6	-	-	-	-	-	-	6	10	1	-	-	-	-	-	11	307	-	12	1	-	-	-	[illegible]	
	COLUMN		699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	

1) including a few "Other" Deliveries

Figure 52

PANEL 41. TYPE OF DELIVERY
By Type of Labour & Presentation
(CL Tab. 6, Col 731 766)

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TYPE OF DELIVERY BY TYPE OF LABOUR & PRESENTATION
(Number & Percent)

	PLACE	Number of Women	SPONTANEOUS LABOUR									INDUCED LABOUR									NO LABOUR									ALL LABOURS										
	Type of Presentation		VERTEX			BREECH			OTHER			VERTEX			BREECH			OTHER			VERTEX			BREECH			OTHER			VERTEX			BREECH			OTHER			
	Type of Delivery		Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	Spontaneous	Forceps/Vacuum	Caesarean Section	
			100%			100%			100%			100%			100%			100%			100%			100%			100%			100%			100%			100%			
1	CHAPEL HILL	272	75.4	16.6	8.0	25.0	25.0	50.0	-	50.0	50.0	55.6	11.1	33.3	-	-	-	-	-	100	-	-	100	-	-	100	-	-	-	67.1	14.6	18.3	18.7	18.7	62.5	-	33.3	66.7	1
			141	31	15	3	3	6	-	1	1	20	4	12	-	-	-	-	-	1	-	-	17	-	-	4	-	-	-	161	35	44	3	3	10	-	1	2	
2	BALTIMORE	294	73.1	24.3	3.6	40.0	-	60.0	-	-	-	72.4	27.6	-	-	-	-	-	-	-	-	-	100	-	-	100	-	-	-	69.6	23.8	6.6	33.3	-	66.7	-	-	-	2
			176	60	9	2	-	3	-	-	-	21	8	-	-	-	-	-	-	-	-	-	10	-	-	1	-	-	-	199	68	19	2	-	4	-	-	-	
3	ST CATHOLY	319	94.4	4.5	1.1	100	-	-	-	-	100	73.9	8.7	17.4	33.3	-	66.7	100	-	-	-	-	100	-	-	100	-	-	100	90.5	4.7	4.7	61.5	-	38.5	12.5	-	87.5	3
			251	12	3	1	-	-	-	-	1	17	2	4	1	-	2	1	-	-	-	-	7	-	-	3	-	-	6	268	14	14	8	-	5	1	-	7	
4	ATHENA	357	91.9	16.2	1.8	50.0	-	50.0	-	-	-	69.6	17.4	13.0	-	-	-	-	-	-	-	-	100	-	-	100	-	-	-	77.5	15.9	6.6	14.3	-	85.7	-	-	-	4
			227	45	5	1	-	1	-	-	-	32	8	6	-	-	-	-	-	-	-	-	11	-	-	5	-	-	-	259	53	22	1	-	6	-	-	-	
5	COLPECEN BREED	314	93.2	5.3	1.5	66.7	-	33.3	66.7	-	33.3	81.8	13.6	4.5	-	-	-	-	-	100	-	-	100	-	-	100	-	-	-	91.7	5.9	2.4	55.6	-	44.4	50.0	-	50.0	5
			248	14	4	10	-	5	2	-	1	18	3	1	-	-	-	-	-	1	-	-	2	-	-	3	-	-	-	266	17	7	10	-	8	2	-	2	
6	CAIRO	303	88.1	5.4	6.5	87.5	4.2	8.3	60.0	-	40.0	25.0	75.0	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	86.8	6.4	6.8	87.5	4.2	8.3	60.0	-	40.0	6
			230	14	17	21	1	2	3	-	2	1	3	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	231	17	18	21	1	2	3	-	2	
7	ARSIIT	395	91.0	7.2	1.8	85.7	-	14.3	33.3	-	66.7	60.0	-	40.0	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	90.1	7.0	2.8	85.7	-	14.3	33.3	-	66.7	7
			253	20	5	6	-	1	1	-	2	3	-	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	256	20	8	6	-	1	1	-	2	
8	KHARTOUM	469	85.4	3.6	10.9	57.5	-	12.5	50.0	-	50.0	41.7	-	58.3	-	-	-	-	-	-	-	-	100	-	-	100	-	-	100	81.9	3.4	14.7	84.0	-	16.0	42.9	-	57.1	8
			352	15	45	21	-	3	3	-	3	5	-	7	-	-	-	-	-	-	-	-	12	-	-	1	-	-	1	357	15	64	21	-	4	3	-	4	
9	ACCRA	293	87.7	3.0	9.3	92.3	-	7.7	-	-	100	50.0	-	50.0	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	86.2	2.9	10.9	92.3	-	7.7	-	-	100	9
			235	8	25	12	-	1	-	-	2	3	-	3	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	238	8	30	12	-	1	-	-	2	
10	IBADAN	272	98.4	0.8	0.8	77.8	-	22.2	100	-	-	57.1	14.3	28.6	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	96.5	1.2	2.3	77.8	-	22.2	100	-	-	10
			246	2	2	7	-	2	3	-	-	4	1	2	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	250	3	6	7	-	2	3	-	-	
11	LAGOS	295	94.3	4.2	1.5	100	-	-	-	-	-	4.2	-	95.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86.7	3.8	9.5	100	-	-	-	-	-	11
			246	11	4	1	-	-	-	-	-	1	-	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	247	11	27	1	-	-	-	-	-	
12	ENUGU	310	93.1	3.1	3.8	100	-	-	75.0	12.5	12.5	-	-	100	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	92.5	3.1	4.4	100	-	-	75.0	12.5	12.5	12
			270	9	11	3	-	-	6	1	1	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	270	9	13	3	-	-	6	1	1	
13	BOMBAY-1	300	92.4	3.6	4.0	100	-	-	20.0	-	80.0	100	-	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	92.1	3.6	4.3	100	-	-	20.0	-	80.0	13
			256	10	11	14	-	-	1	-	4	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	257	10	12	14	-	-	1	-	4	
14	BOMBAY-2	299	96.1	1.8	2.1	100	-	-	75.0	-	25.0	-	-	100	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	95.8	1.7	2.5	90.0	-	10.0	75.0	-	25.0	14
			271	5	6	9	-	-	3	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	271	5	7	9	-	1	3	-	1	
15	MANIPAL	299	80.0	14.2	5.8	66.7	-	33.3	-	-	100	66.7	16.7	16.7	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	77.5	13.8	8.7	66.7	-	33.3	-	-	100	15
			220	39	16	4	-	2	-	-	1	4	1	1	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	224	40	25	4	-	2	-	-	1	
16	COLOMBO-1	294	94.6	2.1	3.3	80.0	10.0	-	100	-	-	82.1	7.1	10.7	-	-	-	-	-	-	-	-	100	-	-	100	-	-	-	89.3	2.5	8.2	81.8	9.1	9.1	100	-	-	16
			227	5	3	9	1	-	2	-	-	23	2	3	-	-	-	-	-	-	-	-	12	-	-	1	-	-	-	250	7	23	9	1	1	2	-	-	
17	COLOMBO-2	309	94.4	1.9	3.7	75.0	16.7	8.3	50.0	-	50.0	87.0	13.0	-	100	-	-	-	-	-	-	-	-	-	-	100	-	-	-	93.8	2.8	3.4	73.3	13.3	13.3	50.0	-	50.0	17
			252	5	10	9	2	1	2	-	2	20	3	-	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	272	8	10	11	2	2	2	-	2	
18	SINGAPORE	399	82.0	12.4	5.6	27.3	40.9	31.8	-	-	100	64.9	13.5	21.6	-	-	-	-	-	-	-	-	100	-	-	100	-	-	100	78.5	12.2	9.2	23.1	34.6	42.3	-	-	100	18
			265	40	18	3	9	7	-	-	1	24	5	8	-	-	-	-	-	-	-	-	8	-	-	4	-	-	3	289	45	34	6	9	11	-	-	4	
19	BANDUNG	318	93.5	5.6	0.9	90.0	-	10.0	7.1	-	92.9	75.6	19.5	4.9	100	-	-	33.3	-	66.7	-	-	-	-	-	-	-	-	-	90.8	7.7	1.5	92.3	-	7.7	15.0	-	85.0	19
			216	13	2	9	-	1	1	-	13	31	8	2	3	-	-	2		4	-	-	-	-	-	-	-	-	-	247	21	4	12	-	1	3	-	17	
20	MANILA	320	96.4	2.0	1.6	50.0	-	50.0	100	-	-	-	-	100	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	94.8	2.0	3.2	50.0	-	50.0	100	-	-	20
			291	6	5	1	-	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	291	6	10	1	-	1	1	-	-	
	Column		731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	

Figure 61

Figure 60

PANEL 42 PRIMARY COMPLICATION OF DELIVERY

By Type of Delivery After Spontaneous Labour

(CL Tab. 7, Col. 767-796)

0371261

SPONTANEOUS LABOUR (Percent & Number)

	PLACE	Number of Women	SPONTANEOUS DELIVERY: None	Premature Rupture of Membranes	Prolonged Labour	Obstructed Labour	Abnormal Uterine Contractions	Postpartum Haemor./ Retained Placenta	Placenta Praevia	Maternal Injuries	Other	TOTAL
1	CHAPEL HILL	272	76.7	12.3	2.1	-	-	-	-	6.8	2.1	100
			112	18	3	-	-	-	-	10	3	146
2	BALTIMORE	294	92.8	4.4	1.1	-	0.4	0.6	-	-	0.6	100
			167	8	2	-	1	1	-	-	1	180
3	STOCKHOLM	319	94.2	1.9	-	-	0.4	2.7	-	0.8	-	100
			244	5	-	-	1	7	-	2	-	259
4	GENEVA	357	67.7	28.4	-	0.4	-	3.5	-	-	-	100
			155	65	-	1	-	8	-	-	-	229
5	DUBROVNIK SZEGED	314	61.2	19.6	0.4	-	7.7	3.5	-	5.4	2.3	100
			159	51	1	-	20	9	-	14	6	260
6	CAIRO	303	78.4	15.7	1.2	-	-	1.2	0.4	0.4	2.7	100
			200	40	3	-	-	3	1	1	7	255
7	ASSIUT	295	80.0	5.8	10.0	-	0.4	2.3	-	1.5	-	100
			208	15	26	-	1	6	-	4	-	260
8	KHARTOUM	469	92.3	2.7	1.1	0.8	-	0.8	-	0.8	1.6	100
			347	10	4	3	-	3	-	3	6	376
9	ACCRA	293	82.3	11.3	1.6	-	-	2.8	-	1.2	0.8	100
			204	28	4	-	-	7	-	3	2	248
10	IBADAN	272	94.1	1.6	1.6	0.4	-	1.6	-	-	0.8	100
			241	4	4	1	-	4	-	-	2	256
11	LUSAKA	295	76.9	2.4	19.4	-	0.4	-	0.4	-	0.4	100
			190	6	48	-	1	-	1	-	1	247
	BARODA	310	84.2	0.4	0.7	-	0.4	1.4	1.1	11.1	0.7	100
			235	1	2	-	1	4	3	32	2	279
12	BOMBAY-1	300	95.9	0.7	-	0.4	-	0.4	0.7	0.4	1.5	100
			260	2	-	1	-	1	2	1	4	271
13	BOMBAY-2	299	97.9	0.4	-	-	-	-	0.4	-	1.4	100
			277	1	-	-	-	-	1	-	4	283
14	MUNIPAL	299	82.6	-	-	-	12.5	2.2	0.4	-	2.2	100
			185	-	-	-	28	5	1	-	5	224
15	COLUMBO-1	294	44.8	1.3	1.3	-	-	1.7	-	10.0	41.0	100
			102	3	3	-	-	4	-	24	98	239
16	COLUMBO-2	309	67.3	2.7	0.4	0.4	-	3.8	-	25.1	0.4	100
			177	7	1	1	-	10	-	66	1	263
17	SINGAPORE	399	91.9	0.4	1.5	-	-	4.1	-	-	2.2	100
			249	1	4	-	-	11	-	-	6	271
18	BANGKOK	318	89.4	4.0	-	-	0.9	4.0	0.4	-	1.3	100
			202	9	-	-	2	9	1	-	3	226
19	MANILA	320	96.9	1.0	-	-	-	0.3	-	0.3	1.4	100
			284	3	-	-	-	1	-	1	4	293
	Column		767	768	769	770	771	772	773	774	775	776

	VACUUM/FORCEPS DELIVERY: None	Premature Rupture of Membranes	Prolonged Labour	Obstructed Labour	Abnormal Uterine Contractions	Postpartum Haemor./ Retained Placenta	Placenta Praevia	Maternal Injuries	Other	TOTAL
1	64.9	24.3	-	-	-	2.7	2.7	5.4	-	100
	24	9	-	-	-	1	1	2	-	37
2	68.3	5.0	20.0	-	-	-	-	-	6.7	100
	41	3	12	-	-	-	-	-	4	60
3	25.0	-	16.7	16.7	25.0	8.3	-	8.3	-	100
	3	-	2	2	3	1	-	2	-	12
4	57.8	24.4	2.2	6.7	2.2	4.4	-	2.2	-	100
	26	11	1	3	1	2	-	1	-	45
5	14.3	28.6	14.3	-	14.3	-	-	7.1	21.4	100
	2	4	2	-	2	-	-	1	3	14
6	66.7	20.0	13.3	-	-	-	-	-	-	100
	10	3	2	-	-	-	-	-	-	15
7	65.0	5.0	25.0	-	-	-	-	-	5.0	100
	13	1	5	-	-	-	-	-	1	20
8	60.0	-	20.0	-	6.7	6.7	-	-	6.7	100
	9	-	3	-	1	1	-	-	1	15
9	37.5	12.5	25.0	-	25.0	-	-	-	-	100
	3	1	2	-	2	-	-	-	-	8
10	-	-	100	-	-	-	-	-	-	100
	-	-	2	-	-	-	-	-	-	2
11	9.1	9.1	72.7	-	-	-	9.1	-	-	100
	1	1	8	-	-	-	1	-	-	11
	40.0	10.0	40.0	-	-	-	-	-	10.0	100
	4	1	4	-	-	-	-	-	1	10
12	40.0	-	50.0	10.0	-	-	-	-	-	100
	4	-	5	1	-	-	-	-	-	10
13	-	-	100	-	-	-	-	-	-	100
	-	-	5	-	-	-	-	-	-	5
14	7.7	5.1	10.3	7.7	61.5	2.6	-	-	5.1	100
	3	2	4	3	24	1	-	-	2	39
15	16.7	-	66.7	-	-	-	-	-	16.7	100
	1	-	4	-	-	-	-	-	1	6
16	28.6	-	28.6	28.6	-	-	-	14.3	-	100
	2	-	2	2	-	-	-	1	-	7
17	55.1	-	32.7	-	-	4.1	-	-	8.2	100
	27	-	16	-	-	2	-	-	4	49
18	53.8	7.7	23.1	-	7.7	-	-	-	7.7	100
	7	1	3	-	1	-	-	-	1	13
19	-	-	66.7	-	-	-	-	-	33.3	100
	-	-	4	-	-	-	-	-	2	6
Column	777	778	779	780	781	782	783	784	785	786

	CAESAREAN SECTION: None	Premature Rupture of Membranes	Prolonged Labour	Obstructed Labour	Abnormal Uterine Contractions	Postpartum Haemor./ Retained Placenta	Placenta Praevia	Maternal Injuries	Other	TOTAL
1	33.3	4.2	-	16.7	8.3	-	8.3	-	29.2	100
	8	1	-	4	2	-	2	-	7	24
2	16.7	-	-	-	16.7	-	-	-	66.7	100
	2	-	-	-	2	-	-	-	8	12
3	-	20.0	-	-	-	-	60.0	-	20.0	100
	-	1	-	-	-	-	3	-	1	5
4	33.3	33.3	-	33.3	-	-	-	-	-	100
	2	2	-	2	-	-	-	-	-	6
5	20.0	20.0	10.0	10.0	10.0	-	-	-	30.0	100
	2	2	1	1	1	-	-	-	3	12
6	28.6	9.5	9.5	19.0	-	-	14.3	-	19.0	100
	6	2	2	4	-	-	3	-	4	21
7	-	-	12.5	87.5	-	-	-	-	-	100
	-	-	1	7	-	-	-	-	-	8
8	23.1	-	9.6	25.0	-	-	5.8	1.9	34.6	100
	12	-	5	13	-	-	3	1	18	52
9	-	-	25.0	39.3	14.3	-	14.3	-	7.1	100
	-	-	7	11	4	-	4	-	2	28
10	75.0	-	-	25.0	-	-	-	-	-	100
	3	-	-	1	-	-	-	-	-	4
11	-	-	100	-	-	-	-	-	-	100
	-	-	4	-	-	-	-	-	-	4
	58.3	16.7	8.3	-	-	-	16.7	-	-	100
	7	2	1	-	-	-	2	-	-	12
12	26.7	6.7	20.0	26.7	-	-	6.7	-	13.3	100
	4	1	3	4	-	-	1	-	2	15
13	-	-	14.3	28.6	-	-	28.6	-	28.6	100
	-	-	1	2	-	-	2	-	2	7
14	-	-	-	89.5	-	-	-	-	10.5	100
	-	-	-	17	-	-	-	-	2	19
15	12.5	-	87.5	-	-	-	-	-	-	100
	1	-	7	-	-	-	-	-	-	8
16	53.8	-	15.4	-	-	-	7.7	-	23.1	100
	7	-	2	-	-	-	1	-	3	13
17	42.3	-	30.8	3.8	-	3.8	3.8	-	15.4	100
	11	-	8	1	-	1	1	-	4	26
18	-	-	6.3	-	6.3	-	75.0	-	12.5	100
	-	-	1	-	1	-	12	-	2	16
19	-	-	-	-	-	-	-	-	100	100
	-	-	-	-	-	-	-	-	6	6
Column	787	788	789	790	791	792	793	794	795	796

RTP (Form 1.77)

Figure 56

FIGURE 43 TYPE OF ATTENDANT AT DELIVERY
By Type of Delivery After Spontaneous Labour
Data: 9 Cor 797 829

Type of Labour	SPONTANEOUS LABOUR (Percent & Number)																																		PHYSICIAN ATTENDANTS*		
Type of Delivery	SPONTANEOUS DELIVERY											FORCEPS/VACUUM DELIVERY											CAESAREAN SECTION													
Type of Attendant / Number of Women	None	Nurse	Midwife	Student Nurse/ Midwife	Paramedic	Medical Student	Physician	Other	Unknown	TOTAL	None	Nurse	Midwife	Student Nurse/ Midwife	Paramedic	Medical Student	Physician	Other	Unknown	TOTAL	None	Nurse	Midwife	Student Nurse/ Midwife	Paramedic	Medical Student	Physician	Other	Unknown	TOTAL	P1 (Physician/Nurse)	P2 (Physician/Midwife)	P3 (Physician/Paramedic)
472	0.7	0.7	-	0.7	-	19.2	78.7	-	-	100	-	-	-	-	-	2.7	97.3	-	-	100	-	-	-	-	-	4.2	95.8	-	-	100	97.9	100	[illegible]
	1	1	-	1	-	28	115	-	-	146	-	-	-	-	-	1	36	-	-	37	-	-	-	-	-	1	23	-	-	24	143	[illegible]	
294	2.2	-	1.7	1.7	-	-	94.4	-	-	100	1.7	-	-	-	-	1.7	96.7	-	-	100	-	-	-	-	-	-	100	-	-	100	[illegible]	[illegible]	[illegible]
	4	-	3	3	-	-	170	-	-	180	1	-	-	-	-	1	58	-	-	60	-	-	-	-	-	-	12	-	-	12	[illegible]		
329	17.8	0.8	64.4	12.4	-	0.4	1.5	2.3	0.4	100	-	-	8.3	33.3	-	-	41.7	15.7	-	100	-	-	-	-	-	-	80.0	-	20.0	100	1.9	52.9	51.8
	46	2	167	32	-	1	4	6	1	259	-	-	1	4	-	-	5	2	-	12	-	-	-	-	-	-	4	-	1	5	5	[illegible]	
317	-	-	-	-	-	-	99.6	-	0.4	100	-	-	-	-	-	-	100	-	-	100	-	-	-	-	-	-	100	-	-	100	99.6	100	[illegible]
	-	-	-	-	-	-	228	-	1	229	-	-	-	-	-	-	45	-	-	45	-	-	-	-	-	-	6	-	-	6	226	[illegible]	
316	1.2	0.4	-	-	0.4	-	65.4	32.3	0.3	[illegible]	-	-	-	-	-	-	21.4	78.6	-	100	-	-	-	-	-	-	30.0	70.0	-	100	65.4	25.[illegible]	[illegible]
	3	1	-	-	1	-	170	84	1	260	-	-	-	-	-	-	3	11	-	14	-	-	-	-	-	-	3	7	-	10	[illegible]	[illegible]	
3[illegible]3	7.1	2.0	-	0.8	-	-	89.8	-	0.4	100	-	-	-	-	-	-	100	-	-	100	14.3	-	-	-	-	-	85.7	-	-	100	89.8	[illegible]	[illegible]
	16	5	-	2	-	-	229	-	1	255	-	-	-	-	-	-	15	-	-	15	3	-	-	-	-	-	18	-	-	21	[illegible]	[illegible]	
295	20.8	6.9	28.5	1.9	2.7	-	26.5	12.7	-	[illegible]	5.0	-	-	-	-	-	90.0	-	5.0	100	-	-	-	-	-	-	100	-	-	100	26.5	92.6	[illegible]
	56	18	74	5	7	-	69	33	-	262	1	-	-	-	-	-	18	-	1	20	-	-	-	-	-	-	3	-	-	3	[illegible]	[illegible]	
469	5.1	17.0	73.7	-	-	-	1.6	2.7	-	100	6.7	6.7	26.7	-	-	-	53.3	6.7	-	100	-	-	5.8	-	-	-	73.1	21.2	-	100	1.6	80.7	[illegible]
	19	64	277	-	-	-	6	10	-	376	1	1	4	-	-	-	8	1	-	15	-	-	3	-	-	-	38	11	-	52	6	[illegible]	
293	2.0	4.0	86.7	4.4	-	-	2.8	-	-	100	-	-	-	-	-	-	100	-	-	100	3.6	-	-	-	-	-	96.4	-	-	100	2.8	97.[illegible]	[illegible]
	5	10	215	11	-	-	7	-	-	248	-	-	-	-	-	-	8	-	-	8	1	-	-	-	-	-	27	-	-	28	[illegible]	[illegible]	
272	6.3	-	77.0	12.5	-	2.7	1.2	-	0.4	100	-	-	-	-	-	-	100	-	-	100	-	-	-	-	-	-	100	-	-	100	3.9	100	[illegible]
	16	-	197	32	-	7	3	-	1	256	-	-	-	-	-	-	2	-	-	2	-	-	-	-	-	-	4	-	-	6	[illegible]	[illegible]	
295	7.7	33.2	36.4	6.1	0.4	7.3	8.9	-	-	100	-	-	9.1	-	-	-	90.9	-	-	100	-	-	-	-	-	-	100	-	-	100	16.2	93.3	[illegible]
	19	82	90	15	1	18	22	-	-	247	-	-	1	-	-	-	10	-	-	11	-	-	-	-	-	-	4	-	-	4	[illegible]	[illegible]	
310	-	8.6	2.2	20.4		6.1	62.4	0.4		100	-	-	-	-	-	-	100	-	-	100	-	-	-	-	-	-	100	-	-	100	68.5	100	[illegible]
	-	24	6	57	-	17	174	1	-	279	-	-	-	-	-	-	10	-	-	10	-	-	-	-	-	-	12	-	-	12	191	[illegible]	
300	4.1	0.4	7.7	79.3			8.5			100	10.0	-	-	-	-	-	90.0	-	-	100	-	-	-	-	-	-	100	-	-	100	8.5	96.[illegible]	[illegible]
	11	1	21	215	-	-	23	-	-	271	1	-	-	-	-	-	9	-	-	10	-	-	-	-	-	-	15	-	-	15	23	[illegible]	
299	4.2	59.0	1.4	24.4	0.4	3.9	6.7			100	-	20.0	-	-	-	-	80.0	-	-	100	-	-	-	-	-	-	85.7	14.3	-	100	10.6	93.[illegible]	[illegible]
	12	167	4	69	1	11	19	-	-	283	-	1	-	-	-	-	4	-	-	5	-	-	-	-	-	-	6	1	-	7	[illegible]	[illegible]	
299	-	-	-	-	0.9	-	99.1	-	-	100	-	-	-	-	-	-	100	-	-	100	-	-	-	-	-	-	100	-	-	100	99.1	100	[illegible]
	-	-	-	-	2	-	222	-	-	224	-	-	-	-	-	-	39	-	-	39	-	-	-	-	-	-	19	-	-	19	222	[illegible]	
294	0.4	0.4	70.7	23.4	-	-	4.6	-	0.4	100	-	-	-	-	-	-	100	-	-	100	-	12.5	-	-	-	-	87.5	-	-	100	4.6	92.9	[illegible]
	1	1	169	56	-	-	11	-	1	239	-	-	-	-	-	-	6	-	-	6	-	1	-	-	-	-	7	-	-	8	11	[illegible]	
309	0.5	8.0	65.8	23.2	-	-	2.3	-	0.4	100	-	-	-	-	-	-	100	-	-	100	-	-	-	-	-	-	100	-	-	100	2.3	100	[illegible]
	1	21	175	61	-	-	6	-	1	263	-	-	-	-	-	-	7	-	-	7	-	-	-	-	-	-	13	-	-	13	[illegible]	[illegible]	
329	3.0	5.5	65.3	9.6	-	1.1	15.5	-	-	100	2.0	-	-	-	-	-	98.0	-	-	100	-	-	-	-	-	-	100	-	-	100	16.6	95.[illegible]	[illegible]
	8	15	177	26	-	3	42	-	-	271	1	-	-	-	-	-	48	-	-	49	-	-	-	-	-	-	26	-	-	26	45	[illegible]	
318	2.7	0.4	4.4	1.8	1.3	16.4	73.0	-	-	100	-	-	-	-	-	-	100	-	-	100	-	-	-	-	-	-	100	-	-	100	89.1	100	[illegible]
	6	1	10	4	3	37	165	-	-	226	-	-	-	-	-	-	13	-	-	13	-	-	-	-	-	-	16	-	-	16	[illegible]	[illegible]	
320	0.7	-	-	68.9	-	18.4	11.9	-	-	100	-	-	-	-	-	-	100	-	-	100	-	-	-	-	-	-	100	-	-	100	30.3	100	[illegible]
	2	-	-	202	-	54	35	-	-	293	-	-	-	-	-	-	6	-	-	6	-	-	-	-	-	-	6	-	-	6	89	[illegible]	
	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827 (602/3	828 [illegible]	829 [illegible]

*Inclusive of the few Medical Students

Figure 65

PANEL 44: PRIMARY COMPLICATION OF & ATTENDANT AT DELIVERY
For Normal Postpartum Maternal Status
(Cf. Tab. B, NB: Col. 830-854)

o46

o37,39(46:

	PLACE	Number of Women	POSTPARTUM MATERNAL STATUS (Percent & Number) Normal	COMPLICATION Requiring Treatment No	COMPLICATION Requiring Treatment Yes	Death	TOTAL
1	CHAPEL HILL	272	89.7	1.5	8.8	-	100
			244	4	24	-	272
2	BALTIMORE	294	92.9	1.4	5.8	-	100
			273	4	17	-	294
3	STOCKHOLM	319	93.4	-	6.6	-	100
			298	-	21	-	319
4	GENEVA	357	82.4	-	17.6	-	100
			294	-	63	-	357
5	DEBRECEN SZEGED	314	92.3	1.0	6.7	-	100
			290	3	21	-	314
6	CAIRO	303	96.4	1.3	2.0	0.3	100
			292	4	6	1	303
7	ASSIUT	295	85.4	7.5	7.1	-	100
			252	22	21	-	295
8	KHARTOUM	469	96.9	0.4	2.3	0.4	100
			454	2	11	2	469
9	ACCRA	293	92.6	1.0	6.1	0.3	100
			271	3	18	1	293
10	IBADAN	272	99.6	0.4	-	-	100
			271	1	-	-	272
11	LUSAKA	295	98.3	0.3	1.4	-	100
			290	1	4	-	295
12	BARODA	310	93.9	0.6	5.5	-	100
			291	2	17	-	310
13	BOMBAY-1	300	98.4	-	1.3	0.3	100
			295	-	4	1	300
14	BOMBAY-2	299	98.3	-	1.7	-	100
			294	-	5	-	299
15	MANIPAL	299	97.4	-	2.3	0.3	100
			291	-	7	1	299
16	COLOMBO-1	294	90.8	1.0	8.2	-	100
			267	3	24	-	294
17	COLOMBO-2	309	94.2	2.9	2.9	-	100
			291	9	9	-	309
18	SINGAPORE	399	95.5	1.0	3.5	-	100
			381	4	14	-	399
19	BANDUNG	318	86.2	2.5	11.0	0.3	100
			274	8	35	1	318
20	MANILA	320	98.7	-	1.3	-	100
			316	-	4	-	320
	Column		830	831	832	833	834

Figure 68
(see also Panel 30, Col. 830-834)

	NORMAL POSTPARTUM MATERNAL STATUS (Percent & Number) PRIMARY COMPLICATION None	Premature Rupture of Membranes	Prolonged Labour	Obstructed Labour	Abnormal Uterine Contractions	Postpartum Haemor./ Retained Placenta	Placenta Praevia	Maternal Injury	Other	TOTAL
1	57.6	18.9	1.2	0.8	0.4	0.4	1.2	4.5	4.9	100
	165	46	3	2	1	1	3	11	12	244
2	77.7	11.7	4.8	-	0.7	-	-	-	5.1	100
	212	32	13	-	2	-	-	-	14	273
3	87.9	3.0	1.0	1.0	1.3	2.0	0.7	1.0	2.0	100
	262	9	3	3	4	6	2	3	6	298
4	62.9	28.6	0.7	2.4	0.3	4.1	0.7	0.3	-	100
	185	84	2	7	1	12	2	1	-	294
5	59.3	20.3	2.1	0.7	7.2	1.7	-	5.2	3.4	100
	172	59	6	2	21	5	-	15	10	290
6	76.4	14.0	2.4	1.0	-	0.7	1.4	-	4.1	100
	223	41	7	3	-	2	4	-	12	292
7	78.6	4.8	11.9	2.0	0.8	1.2	-	0.8	-	100
	198	12	30	5	2	3	-	2	-	252
8	83.5	1.8	3.3	3.7	0.2	1.1	0.4	0.9	5.1	100
	379	8	15	17	1	5	2	4	23	454
9	75.3	10.3	5.2	3.0	2.2	0.7	1.5	1.1	0.7	100
	204	28	14	8	6	2	4	3	2	271
10	92.3	1.8	1.8	0.7	0.4	1.8	-	-	1.1	100
	250	5	5	2	1	5	-	-	3	271
11	69.0	2.4	24.5	0.3	2.4	-	0.7	-	0.7	100
	200	7	71	1	7	-	2	-	2	290
12	81.4	1.4	7.7	1.4	0.3	0.7	1.7	10.3	1.0	100
	237	4	5	4	1	2	5	30	3	291
13	91.2	1.0	2.7	2.4	-	-	0.7	0.3	1.7	100
	269	3	8	7	-	-	2	1	5	295
14	93.2	0.3	2.0	0.7	-	-	1.4	-	2.4	100
	274	1	6	2	-	-	4	-	7	294
15	65.6	0.7	1.7	7.2	17.9	1.4	0.3	-	5.2	100
	191	2	5	21	52	4	1	-	15	291
16	43.4	1.1	5.2	-	-	0.7	-	9.0	40.5	100
	116	3	14	-	-	2	-	24	108	267
17	67.0	2.1	2.7	1.0	-	3.1	0.3	22.7	1.0	100
	195	6	8	3	-	9	1	66	3	291
18	83.2	0.5	6.3	0.3	-	4.2	0.8	-	4.7	100
	317	2	24	1	-	16	3	-	18	381
19	81.0	4.0	2.6	1.5	4.4	1.1	4.0	-	1.5	100
	222	11	7	4	12	3	11	-	4	274
20	92.4	0.9	1.3	-	-	-	0.6	-	4.7	100
	292	3	4	-	-	-	2	-	15	316
Column	835	836	837	838	839	840	841	842	843	844

	ATTENDANT AT DELIVERY None	Nurse	Midwife	Student Nurse/ Midwife	Paramedic	Medical Student	Physician	Other	Unknown	TOTAL
1	0.4	0.4	-	0.4	-	12.7	86.1	-	-	100
	1	1	-	1	-	31	210	-	-	244
2	1.8	-	1.5	1.5	-	0.4	84.5	-	0.4	100
	5	-	4	4	-	1	258	-	1	273
3	15.8	1.0	60.4	12.4	-	0.3	6.0	3.4	0.7	100
	47	3	180	37	-	1	18	10	2	298
4	-	-	-	-	-	-	99.7	-	0.3	100
	-	-	-	-	-	-	293	-	1	293
5	1.4	0.3	-	-	0.3	-	61.4	36.6	-	100
	4	1	-	-	1	-	178	106	-	290
6	7.2	1.7	-	0.7	-	-	90.1	-	0.3	100
	21	5	-	2	-	-	263	-	1	292
7	19.8	4.0	26.6	1.6	2.8	-	34.5	10.3	0.4	100
	50	10	67	4	7	-	87	26	1	252
8	4.4	14.3	61.9	-	-	-	14.3	5.1	-	100
	20	65	281	-	-	-	65	23	-	454
9	2.2	3.3	79.0	3.3	-	-	12.2	-	-	100
	6	9	214	9	-	-	33	-	-	271
10	5.9	-	73.8	12.2	-	2.6	3.2	-	0.4	100
	16	-	200	33	-	7	14	-	1	271
11	7.2	28.3	32.4	5.2	0.3	6.2	20.3	-	-	100
	21	82	94	15	1	18	59	-	-	290
12	-	7.6	2.1	18.9	-	5.8	65.3	0.3	-	100
	-	22	6	55	-	17	190	1	-	291
13	4.1	0.3	6.8	72.9	-	-	15.9	-	-	100
	12	1	20	215	-	-	47	-	-	295
14	4.1	56.8	1.4	23.5	0.3	3.7	9.9	0.3	-	100
	12	167	4	69	1	11	29	1	-	294
15	-	-	-	-	0.3	-	99.7	-	-	100
	-	-	-	-	1	-	290	-	-	291
16	0.4	-	65.9	20.2	-	-	13.1	-	0.4	100
	1	-	176	54	-	-	35	-	1	267
17	0.3	7.6	62.2	19.9	-	-	9.6	-	0.3	100
	1	22	181	58	-	-	28	-	1	291
18	2.4	4.2	47.5	8.4	-	1.1	36.5	-	-	100
	9	16	181	32	-	4	139	-	-	381
19	2.6	0.4	3.3	1.8	1.1	15.0	75.9	-	-	100
	7	1	9	5	3	41	208	-	-	274
20	0.6	-	-	63.0	-	17.1	19.3	-	-	100
	2	-	-	199	-	54	61	-	-	316
Column	845	846	847	848	849	850	851	852	853	854

Figure 65

RTP (Annex 1 77)

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3.3.3 POSTPARTUM

Panels 45—48

Panel 45	Tubal Ligation	855-861
	Hospital Stay After Delivery	862-869
	Single Birth Outcome	870-880
	Primary Foetal/Neonatal Complication	881-886
Panel 46	Stillbirth, by Presentation	887-916
Panel 47	Primary Foetal/Neonatal Complication, by Status of Infant	917-948
Panel 48	Primary Foetal/Neonatal Complication, by Status of Infant and by 'Development'; a reconsideration	949-980
	Status of Infant, by Primary Foetal/Neonatal Complication and by 'Development'	949-980

PANEL 45 POSTPARTUM STATUS OF MOTHER & CHILD - I
Fertility Termination, Hospital Stay, Single Birth Outcome, Primary Offspring Complication
(Cl. Tab. 15.5, 3.7, 23, 19.6, Col 355-886)

MATERNITY PROFILE (Pretest, Summer 1976)
IFRP FIGO

	PLACE	Number of Women	TUBAL LIGATION AT THIS DELIVERY (Percent & Number) None	Before Delivery	Immediately Post-Deliv.	Same Day as Delivery	1-2 Days Later	Unknown	TOTAL	HOSPITALISATION AFTER DELIVERY Days Mean	Days Median	% Women Days None	1-2	3-4	5-6	7-10	11+
1	CHAPEL HILL	272	91.5	5.1	-	2.6	0.4*	0.4	100	3.7	3.5	0.4	34.2	39.3	15.1	8.8	2.2
			249	14	-	7	1	1	272								
2	BALTIMORE	294	98.0	1.7	-	0.3	-	-	100	3.4	3.4	1.0	28.2	57.8	4.4	7.1	1.4
			288	5	-	1	-	-	294								
3	STOCKHOLM	319	98.4	0.9	-	-	0.3	0.3	100	6.3	6.7	4.5	-	0.9	65.8	30.1	0.6
			314	3	-	-	1	1	319								
4	CORDOBA	357	95.8	0.8	-	-	3.4	-	100	7.6	7.6	0.3	0.3	0.3	21.3	70.6	7.2
			342	3	-	-	12	-	357								
5	HARPERN SWEDEN	314	97.8	2.2	-	-	-	-	100	5.7	5.7	3.8	5.4	29.0	40.4	15.0	6.4
			307	7	-	-	-	-	314								
6	CAIRO	303	98.7	0.7	-	-	0.7	-	100	1.6	1.5	13.2	77.2	1.3	-	7.6	0.7
			298	2	-	-	2	-	302								
7	A. FIUT	295	99.0	1.0	-	-	-	-	100	0.7	0.8	65.4	29.5	2.0	0.3	2.0	0.7
			292	3	-	-	-	-	295								
8	[illegible]AMPTON	469	98.3	1.5	0.2	-	-	-	100	4.5	3.0	5.1	45.4	7.5	18.6	17.5	6.0
			459	7	1	-	-	-	467								
9	[illegible]RA	293	95.3	1.0	-	-	0.7*	-	100	2.6	1.7	0.7	79.2	5.1	1.0	7.2	6.8
			287	3	-	-	2	-	292								
10	[illegible]RAMAN	272	99.6	0.4	-	-	-	-	100	2.0	1.6	34.6	42.6	12.5	2.6	5.9	1.8
			271	1	-	-	-	-	[illegible]								
11	[illegible]NA	295	100	-	-	-	-	-	100	1.6	1.4	28.5	60.3	2.7	0.7	5.8	2.0
			295	-	-	-	-	-	295								
12	[illegible]DA	310	89.1	1.3	-	2.3	9.4	-	100	5.6	5.3	1.0	6.1	37.1	29.4	18.7	7.7
			273	4	-	7	26	-	310								
13	[illegible]-1	300	80.3	1.3	-	5.4	13.0	-	100	5.6	4.8	1.0	22.0	30.7	10.3	27.3	8.7
			240	4	-	16	39	-	299								
14	[illegible]	299	76.6	1.7	-	9.0	14.7	-	100	4.8	4.5	0.7	26.1	28.8	17.4	22.7	4.3
			223	5	-	27	44	-	299								
15	[illegible]IPAI	299	68.1	3.0	0.3	4.0	24.5	-	100	9.4	9.1	0.7	-	3.0	20.1	49.8	26.4
			203	9	1	12	73	-	298								
16	[illegible]-2	296	87.1	1.4	0.3	8.8	2.0	0.3	100	3.1	2.6	0.7	63.9	17.0	5.4	9.9	3.1
			256	4	1	26	6	1	294								
17	[illegible]-2	309	82.5	1.3	0.6	13.9	1.6	-	100	2.8	2.8	1.6	54.4	30.1	8.1	5.5	0.3
			255	4	2	43	5	-	309								
18	[illegible]HIRE	399	82.0	2.0	0.8	15.3	-	-	100	2.4	2.3	2.0	70.7	16.0	6.0	4.8	0.5
			327	8	3	61	-	-	399								
19	[illegible]	318	85.5	1.9	0.6	8.5	3.5	-	100	4.5	4.2	0.9	9.1	59.4	13.5	14.5	2.5
			271	6	2	27	11	-	317								
20	[illegible]ELA	320	94.4	0.6	-	3.1	1.9	-	100	3.1	2.9	-	54.7	30.6	7.5	5.0	2.2
			302	2	-	10	6	-	320								

	SINGLE BIRTH OUTCOME (Percent & Number) STILLBORN Macerated	Fresh	SUBTOTAL	LIVEBORN Neonatal Death	Discharged Alive	SUBTOTAL	TOTAL	STILL-BIRTHS Rate Per 1000 Total Births	NEONATAL DEATHS Rate Per 1000 Live Births	SEX RATIO All Infants Born	All Infants Discharged Alive	PRIMARY FOETAL/NEONATAL COMPLICATION (Percent) None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Malformation	Other
1	-	1.1	1.1	1.9	97.0	98.9	100	11.2	18.9	103.8	105.6	88.2	1.5	6.6	1.1	1.8	0.7
	-	3	3	5	259	264	267										
2	-	-	-	1.0	99.0	100	100	0.0	10.4	110.9	111.9	84.7	0.3	1.0	3.7	1.0	9.2
	-	-	-	3	286	289	289										
3	-	0.6	0.6	-	97.4	97.4	100	6.3	0.0	112.8	114.4	91.2	0.6	3.4	2.8	0.6	1.3
	-	2	2	-	313	313	315										
4	0.6	0.3	0.9	0.9	98.3	99.1	100	8.5	8.6	95.0	93.9	93.3	1.4	4.5	0.8	-	-
	2	1	3	3	347	350	353										
5	-	0.6	0.6	0.6	98.7	99.4	100	6.4	6.5	88.5	89.5	84.1	4.1	2.9	8.0	-	1.0
	-	2	2	2	307	309	311										
6	1.1	4.9	6.0	0.4	93.6	94.0	100	59.9	3.4	140.7	137.5	90.4	6.6	2.0	0.7	0.3	-
	3	14	17	1	266	267	284										
7	1.4	1.1	2.5	0.4	97.1	97.5	100	25.1	3.7	103.6	105.3	88.5	1.4	6.4	1.7	1.0	1.0
	4	3	7	1	271	272	279										
8	0.2	4.7	4.9	2.2	92.9	95.1	100	49.0	23.4	144.0	136.9	91.9	2.8	1.9	2.3	0.8	0.2
	1	21	22	10	417	427	449										
9	1.1	2.5	3.5	0.7	95.8	96.5	100	35.3	7.3	130.1	131.6	89.1	3.8	4.4	0.7	0.7	1.4
	3	7	10	2	271	273	283										
10	-	0.4	0.4	-	99.6	99.6	100	3.9	0.0	109.7	110.6	97.4	0.7	-	1.1	0.7	-
	-	1	1	-	259	259	260										
11	-	-	-	-	100	100	100	0.0	0.0	107.2	107.2	97.0	2.0	0.3	-	-	-
	-	-	-	-	286	286	286										
12	1.6	5.6	7.2	6.2	86.6	92.8	100	71.9	66.9	105.4	103.8	81.9	5.5	2.6	8.4	1.6	-
	5	17	22	19	265	284	306										
13	0.7	3.4	4.1	6.1	89.8	95.9	100	40.8	63.8	116.2	114.6	84.7	3.3	5.7	2.3	1.7	2.3
	2	10	12	18	264	282	294										
14	0.3	1.7	2.0	2.4	95.6	98.0	100	20.3	24.2	103.4	98.6	88.6	2.0	0.3	2.3	0.7	6.0
	1	5	6	7	282	289	295										
15	1.0	3.1	4.1	2.7	93.2	95.9	100	41.0	28.5	92.8	95.0	92.6	2.7	1.3	2.7	0.6	-
	3	9	12	8	273	281	293										
16	0.3	1.0	1.3	0.7	97.9	98.6	100	13.8	7.0	121.4	125.4	76.5	2.0	2.7	1.4	1.0	16.3
	1	3	4	2	284	286	290										
17	0.7	0.3	1.0	0.7	98.3	99.0	100	9.9	6.7	105.4	106.3	87.7	2.6	4.9	1.0	-	2.9
	2	1	3	2	297	299	302										
18	0.3	0.5	0.7	0.3	99.0	99.3	100	7.6	2.5	103.1	101.0	92.5	1.3	4.3	0.8	0.3	1.3
	1	2	3	1	392	393	396										
19	2.6	7.0	9.6	1.0	89.4	90.4	100	96.2	10.6	109.4	108.2	82.7	6.6	5.7	1.6	0.3	3.1
	8	22	30	3	279	282	312										
20	-	0.3	0.3	2.8	96.9	99.7	100	3.1	28.3	84.4	85.0	94.4	0.3	0.6	2.2	0.3	2.2
	-	1	1	9	309	318	319										

Column 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886

Figure 81 · Figure 49 · Figure 86 · Figure 85 · Figure 88 · Figure 82

* 3 or more days later

PANEL 46: POSTPARTUM STATUS OF MOTHER & CHILD - II
Stillbirth by Presentation
(Cf. Tab 24 2, Col 887 916)

C45,33

STILLBIRTH BY PRESENTATION (Single Births Only)

	PLACE	Number of Women	VERTEX # Live Births	VERTEX STILLBIRTH #	VERTEX STILLBIRTH Rate per 1000 Total Births	BREECH # Live Births	BREECH STILLBIRTH #	BREECH STILLBIRTH Rate per 1000 Total Births	FACE # Live Births	FACE STILLBIRTH #	FACE STILLBIRTH Rate per 1000 Total Births	BROW # Live Births	BROW STILLBIRTH #	BROW STILLBIRTH Rate per 1000 Total Births	TRANSVERSE # Live Births	TRANSVERSE STILLBIRTH #	TRANSVERSE STILLBIRTH Rate per 1000 Total Births	COMPOUND # Live Births	COMPOUND STILLBIRTH #	COMPOUND STILLBIRTH Rate per 1000 Total Births	OTHER # Live Births	OTHER STILLBIRTH #	OTHER STILLBIRTH Rate per 1000 Total Births	UNKNOWN # Live Births	UNKNOWN STILLBIRTH #	UNKNOWN STILLBIRTH Rate per 1000 Total Births	ALL EXCEPT VERTEX # Live Births	ALL EXCEPT VERTEX STILLBIRTH #	ALL EXCEPT VERTEX STILLBIRTH Rate per 1000 Total Births	TOTAL # Live Births	TOTAL STILLBIRTH #	TOTAL STILLBIRTH Rate per 1000 Total Births	
1	CHAPEL HILL	272	235	2	8.4	15	1	62.5	1	0	0.0	-	-	-	1	0	0.0	1	0	0.0	-	-	-	11	0	0.0	29	1	33.3	264	3	11.2	1
2	BALTIMORE	294	282	0	0.0	7	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	0	0.0	289	0	0.0	2
3	STOCKHOLM	319	293	1	3.4	12	0	0.0	-	-	-	-	-	-	1	0	0.0	-	-	-	5	1	166.7	2	0	0.0	20	1	47.6	313	2	6.3	3
4	GENEVA	357	328	3	9.1	21	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0	0.0	22	0	0.0	350	3	8.5	4
5	DEBRECEN SZEGED	314	287	2	6.9	19	0	0.0	-	-	-	-	-	-	2	0	0.0	-	-	-	1	0	0.0	-	-	-	22	0	0.0	309	2	6.4	5
6	CAIRO	303	244	11	43.1	14	5	238.1	3	0	0.0	-	-	-	2	1	333.3	1	0	0.0	-	-	-	1	0	0.0	23	7	206.9	267	17	59.9	6
7	ASSIUT	295	264	5	18.6	7	1	142.9	2	1	333.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	2	200.0	272	7	25.1	7
8	KHARTOUM	469	402	20	47.4	19	2	95.2	1	0	0.0	1	0	0.0	2	0	0.0	1	0	0.0	-	-	-	1	0	0.0	25	2	74.1	427	22	49.0	8
9	ACCRA	293	263	7	26.6	7	3	300.0	1	0	0.0	-	-	-	1	0	0.0	-	-	-	-	-	-	1	0	0.0	10	3	230.8	273	10	35.3	9
10	IBADAN	272	251	1	4.0	7	0	0.0	1	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	0	0.0	259	1	3.9	10
11	LUSAKA	295	286	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	286	0	0.0	11
12	BARODA	310	277	12	44.8	5	0	0.0	1	1	500.0	-	-	-	0	7	1000.0	-	-	-	1	1	500.0	-	-	-	7	9	562.5	284	22	71.9	12
13	BOMBAY-1	300	268	7	25.5	10	2	166.7	1	0	0.0	-	-	-	2	3	600.0	1	0	0.0	-	-	-	-	-	-	14	5	263.2	282	12	40.8	13
14	BOMBAY-2	299	278	3	10.7	8	2	200.0	1	0	0.0	-	-	-	1	0	0.0	1	1	500.0	-	-	-	-	-	-	11	3	214.3	289	6	20.3	14
15	MANIPAL	299	275	11	38.5	5	1	166.7	-	-	-	-	-	-	-	-	-	1	0	0.0	-	-	-	-	-	-	6	1	142.9	281	12	41.0	15
16	COLOMBO-1	294	272	4	14.5	11	0	0.0	-	-	-	-	-	-	-	-	-	2	0	0.0	-	-	-	1	0	0.0	14	0	0.0	286	4	13.8	16
17	COLOMBO-2	309	284	1	3.5	11	2	153.8	1	0	0.0	-	-	-	1	0	0.0	-	-	-	2	0	0.0	-	-	-	15	2	117.6	299	3	9.9	17
18	SINGAPORE	399	363	3	8.3	26	0	0.0	-	-	-	-	-	-	1	0	0.0	-	-	-	3	0	0.0	-	-	-	30	0	0.0	393	3	7.6	18
19	BANDUNG	318	258	16	58.4	11	2	153.8	1	0	0.0	-	-	-	2	5	714.3	-	-	-	10	7	411.8	-	-	-	24	14	368.4	282	30	96.2	19
20	MANILA	320	305	1	3.3	12	0	0.0	1	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	0	0.0	318	1	3.1	20
	Columns		887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	

Figure 87

Figure 85

PANEL 47 POSTPARTUM STATUS OF MOTHER & CHILD - III
Primary Foetal/Neonatal Complication by Status of Infant
(Cl. Tab. 21, Col. 917 948)

0481434-5

PRIMARY FOETAL/NEONATAL COMPLICATION BY STATUS OF INFANT (Single Births Only)
(Percent & Number)

	Status of Infant		MACERATED STILLBIRTH								FRESH STILLBIRTH								NEONATAL DEATH								ALIVE AT DISCHARGE								
	Primary Foetal Neonatal Complication		None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL	None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL	None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL	None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL	
	PLACE	Number of Women																																	
1	CHAPEL HILL	272	-	-	-	-	-	-	-	-	-	-	-	-	66.7	33.3	-	100	-	-	40.0	40.0	20.0	-	-	100	91.5	0.8	6.1	0.4	0.8	0.4	-	100	1
			-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	3	-	-	2	2	1	-	-	5	237	2	16	1	2	1	-	259	
2	BALTIMORE	294	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66.7	-	33.3	-	100	85.3	0.4	1.0	3.2	1.0	9.1	-	100	2
			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	3	244	1	3	9	3	26	-	286	
3	STOCKHOLM	319	-	-	-	-	-	-	-	-	-	-	50.0	-	50.0	-	-	100	-	-	-	-	-	-	-	-	92.0	0.6	3.2	2.5	0.3	1.3	-	100	3
			-	100	-	-	-	-	-	100	-	100	-	-	-	-	-	2	-	-	-	-	-	-	-	-	288	2	10	8	1	4	-	313	
4	GENEVA	357	-	2	-	-	-	-	-	2	-	1	-	-	1	-	-	100	-	-	-	100	-	-	-	100	95.1	0.3	4.6	-	-	-	-	100	4
			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	3	-	-	-	3	330	1	16	-	-	-	-	347	
5	DEBRECEN SZEGED	314	-	-	-	-	-	-	-	-	-	50.0	50.0	-	-	-	-	100	-	-	50.0	50.0	-	-	-	100	85.3	3.9	2.3	7.5	-	1.0	-	100	5
			-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	2	-	-	1	1	-	-	-	2	262	12	7	23	-	3	-	307	
6	CAIRO	303	-	100	-	-	-	-	-	100	-	78.6	21.4	-	-	-	-	100	-	-	-	-	100	-	-	100	93.1	0.4	0.8	0.8	-	-	-	100	6
			-	3	-	-	-	-	-	3	-	11	3	-	-	-	-	14	-	-	-	-	1	-	-	1	261	1	2	2	-	-	-	266	
7	ASSIUT	295	-	25.0	-	-	25.0	50.0	-	100	-	33.3	-	-	33.3	33.3	-	100	-	-	-	100	-	-	-	100	91.9	-	6.6	1.1	0.4	-	-	100	7
			-	1	-	-	1	2	-	4	-	1	-	-	1	1	-	3	-	-	-	1	-	-	-	1	249	-	18	5	1	-	-	271	
8	KHARTOUM	469	-	100	-	-	-	-	-	100	-	57.1	23.8	9.5	9.5	-	-	100	-	-	10.0	70.0	10.0	10.0	-	100	99.1	-	0.7	0.1	-	-	-	100	8
			-	1	-	-	-	-	-	1	-	12	5	2	2	-	-	21	-	-	1	7	1	1	-	10	313	-	3	1	-	-	-	317	
9	ACCRA	293	-	100	-	-	-	-	-	100	-	-	85.7	-	14.3	-	-	100	-	-	-	100	-	-	-	100	93.7	2.6	2.6	-	0.4	0.7	-	100	9
			-	3	-	-	-	-	-	3	-	-	6	-	1	-	-	7	-	-	-	2	-	-	-	2	254	7	7	-	1	2	-	271	
10	IBADAN	272	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	100	-	-	-	-	-	-	-	-	97.6	0.4	-	1.2	0.8	-	-	100	10
			-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	253	1	-	3	2	-	-	259	
11	LUSAKA	295	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97.5	2.1	0.4	-	-	-	-	100	11
			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	279	6	1	-	-	-	-	286	
12	BARODA	310	-	80.0	-	-	20.0	-	-	100	-	70.6	17.6	-	11.8	-	-	100	-	-	10.5	84.2	5.3	-	-	100	95.5	0.4	1.1	2.6	0.4	-	-	100	12
			-	4	-	-	1	-	-	5	-	12	3	-	2	-	-	17	-	-	2	16	1	-	-	19	255	1	3	7	1	-	-	265	
13	BOMBAY-1	300	-	100	-	-	-	-	-	100	-	60.0	30.0	-	10.0	-	-	100	-	-	11.1	33.3	16.7	38.9	-	100	93.9	0.8	4.5	0.4	0.4	-	-	100	13
			-	2	-	-	-	-	-	2	-	6	3	-	1	-	-	10	-	-	2	6	3	7	-	18	248	2	12	1	1	-	-	264	
14	BOMBAY-2	299	-	100	-	-	-	-	-	100	-	100	-	-	-	-	-	100	-	-	14.3	57.1	28.6	-	-	100	93.6	-	-	0.4	-	6.0	-	100	14
			-	1	-	-	-	-	-	1	-	5	-	-	-	-	-	5	-	-	1	4	2	-	-	7	264	-	-	1	-	17	-	282	
15	MANIPAL	299	-	66.7	33.3	-	-	-	-	100	-	66.7	22.2	-	11.1	-	-	100	-	-	12.5	87.5	-	-	-	100	99.6	-	-	-	0.4	-	-	100	15
			-	2	1	-	-	-	-	3	-	6	2	-	1	-	-	9	-	-	1	7	-	-	-	8	272	-	-	-	1	-	-	275	
16	COLOMBO-1	294	-	100	-	-	-	-	-	100	-	100	-	-	-	-	-	100	-	-	-	-	50.0	50.0	-	100	78.2	0.7	2.8	1.4	0.7	16.2	-	100	16
			-	3	-	-	-	-	-	3	-	1	-	-	-	-	-	1	-	-	-	-	1	1	-	2	222	2	8	4	2	46	-	284	
17	COLOMBO-2	309	-	100	-	-	-	-	-	100	-	50.0	50.0	-	-	-	-	100	-	-	-	50.0	-	50.0	-	100	89.6	2.0	4.7	0.7	-	3.0	-	100	17
			-	1	-	-	-	-	-	1	-	1	1	-	-	-	-	2	-	-	-	1	-	1	-	2	266	6	14	2	-	9	-	297	
18	SINGAPORE	399	-	100	-	-	-	-	-	100	-	100	-	-	-	-	-	100	-	-	100	-	-	-	-	100	93.5	0.3	4.1	0.8	0.3	1.0	-	100	18
			-	1	-	-	-	-	-	1	-	2	-	-	-	-	-	2	-	-	1	-	-	-	-	1	367	1	16	3	1	4	-	392	
19	BANDUNG	318	-	25.0	12.5	-	-	62.5	-	100	-	45.5	18.2	13.6	22.7	-	-	100	-	66.7	33.3	-	-	-	-	100	92.5	2.2	4.3	0.7	0.4	-	-	100	19
			-	2	1	-	-	5	-	8	-	10	4	3	5	-	-	22	-	2	1	-	-	-	-	3	258	6	12	2	1	-	-	279	
20	MANILA	320	-	-	-	-	-	-	-	-	-	100	-	-	-	-	-	100	-	-	-	22.2	-	77.8	-	100	97.4	-	0.7	1.6	0.3	-	-	100	20
			-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	2	-	7	-	9	301	-	2	5	1	-	-	309	
	Column		917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	

IFRP rounds 1-77

Figure 84 Figure 83

PANEL 48 POSTPARTUM STATUS OF MOTHER & CHILD
Complication & Development Effect on Status of Infant
A. Primary Foetal/Neonatal Complication, by Status of Infant & Development
B. Status of Infant, by Primary Foetal/Neonatal Complication & Development
ICI Tab. 21, a Recomposition Col 948-980

Q48[43-45] and graphs

A — PRIMARY FOETAL/NEONATAL COMPLICATION, BY STATUS OF INFANT & DEVELOPMENT

	Centre Numbers	Number of women		MACERATED STILLBIRTH: None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL	FRESH STILLBIRTH: None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL
ALL HOSPITAL SAMPLES	1-20	6331	%	-	70.3	5.4	-	5.4	18.9	-	100	-	57.7	23.6	4.1	13.9	1.6	-	100
			#	-	26	2	-	2	7	-	37	-	71	29	5	16	2	-	123
DEVELOPED COUNTRY HOSPITAL SAMPLES	1-5,18	1955	%	-	100	-	-	-	-	-	100	-	40.0	20.0	-	30.0	10.0	-	100
			#	-	3	-	-	-	-	-	3	-	4	2	-	3	1	-	10
DEVELOPING COUNTRY HOSPITAL SAMPLES	6-17,19,20	4376	%	-	67.6	5.9	-	5.9	20.6	-	100	-	59.3	23.9	4.4	11.5	0.9	-	100
			#	-	23	2	-	2	7	-	34	-	67	27	5	13	1	-	113

	NEONATAL DEATH: None	Foetal Distress During Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL	ALIVE AT DISCHARGE: None	Foetal Distress Before Labour	Foetal Distress During Labour	Neonatal Complication	Congenital Mal-formation Alone	Other	Unknown	TOTAL
ALL HOSPITAL SAMPLES	-	2.1	12.5	56.3	10.4	18.7	-	100	93.1	0.9	2.5	1.3	0.3	1.9	-	100
	-	2	12	54	10	18	-	96	5521	51	150	75	18	112	-	5927
DEVELOPED COUNTRY HOSPITAL SAMPLES	-	-	28.6	57.2	7.1	7.1	-	100	90.8	1.0	3.6	2.3	0.4	2.0	-	100
	-	-	4	8	1	1	-	14	1728	19	68	44	7	38	-	1904
DEVELOPING COUNTRY HOSPITAL SAMPLES	-	2.4	9.8	56.1	11.0	20.7	-	100	94.3	0.3	2.0	0.8	0.3	1.8	-	100
	-	2	8	46	9	17	-	82	3793	32	82	31	11	74	-	4023

Figure 84

Q43-45[48] and graphs

B — STATUS OF INFANT, BY PRIMARY FOETAL/NEONATAL COMPLICATION & DEVELOPMENT

				a	+		b	+		c	+		d		
ALL HOSPITAL SAMPLES	1-20	6331	%	- 17.3 1.0 - 4.4	5.0 -	0.6	- 47.4 15.0 3.7 34.8	1.4 -	2.0	- 1.3 6.2 40.3 21.7	13.0 -	1.6	100 34.0 77.7 56.0 39.1	80.6 -	95.8
			#	- 26 2 - 2	7 -	37	- 71 29 5 16	2 -	123	- 2 12 54 10	8 -	96	5521 51 150 75 18	112 -	5927
DEVELOPED COUNTRY HOSPITAL SAMPLES	1-15,18	1955	%	- 11.5 - - -	- -	0.2	- 15.4 2.7 - 27.3	2.5 -	0.5	- - 5.4 15.4 9.1	2.5 -	0.7	100 73.1 91.9 84.6 63.6	95.0 -	98.6
			#	- 3 - - -	- -	3	- 4 2 - 3	1 -	10	- - 4 8 1	1 -	14	1728 19 68 44 7	38 -	1904
DEVELOPING COUNTRY HOSPITAL SAMPLES	6-17,19,20	4376	%	- 18.6 1.7 - 5.7	7.1 -	0.8	- 54.0 22.7 6.1 37.1	1.0 -	2.7	- 1.6 6.7 56.1 25.7	17.2 -	1.9	100 25.8 68.9 37.8 31.4	74.7 -	94.6
			#	- 23 2 - 2	7 -	34	- 67 27 5 13	1 -	113	- 2 8 46 9	17 -	82	3793 32 82 31 11	74 -	4023

		=100%						
	%	100	100 100 100 100 100	100 -	100			
	#	5521	150 193 134 46 139		6183			
	%	100	100 100 100 100 100	100 -	100			
	#	1728	26 74 52 11 40		1931			
	%	100	100 100 100 100 100	100 -	100			
	#	3793	124 119 82 35 99		4252			

949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980

Figure 89 Figure 90

ACKNOWLEDGEMENT & OUTLOOK

During the entire analysis, we were concerned with the question of how contributors could draw maximal advantage from the data presented herein. We felt that the richly illustrated Section II might come closest to this goal. We shall continue the routine illustration of feedback to the contributors and it is hoped that a vivid dialogue among contributors will ensue. The contributors should also keep in mind that these analyses could benefit from suggestions on format and substance. Suggestions will always be welcomed. There remains, however, one possible limitation to the success of the Maternity Record: suboptimal recording. The quality of continuous recording must remain consistently high to ensure meaningful feedback: in this spirit, Maternity Care Monitoring may improve pregnancy outcome worldwide during the next few years.

I would wish to express my gratitude to Dr. Elton Kessel, Director, IFRP, and Dr. Hubert de Watteville, Secretary-General Emeritus, FIGO, whose confidence in my work set the stage for moving forward with the present analysis. I am also very grateful to Dr. Gary Berger, Associate Director of Research & Training, IFRP, who provided insight into some questions at a time when his input was critically needed. However, any shortcomings remain with me and some of the limitations of the present version of the standard computer output.

May Linda Lewis, Editor, IFRP, forgive me for having drawn so copiously on the expertise of Edgar Adcock and Linda Marco, Graphic Assistants. Without their help this fascicule could not have been accomplished in the short time it was. The quality of the figures attest to a remarkable growth in skill and creativity. Perhaps as important, the contributors to the Maternity Record will know to value both the beauty and transparency of these illustrations. Finally, I would wish to thank Ellen Kendall who served as my assistant during the month of January during which MCM-5 was created. She showed total commitment to this major task and was involved in virtually every aspect of its creation. Her dependable data extraction and data panel creation has given MCM-5 a subdued luster.

The greatest lesson I have learned from this work during January is that Maternity Care Monitoring is feasible. I hope that its implementation is also feasible because of the enormous benefit that would be derived for mother and child.

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