



RESPONSE RATES IN THE MEXICAN HEALTH AND AGING STUDY (MHAS/ENASEM) 2003

Project Report

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by

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Introduction

The survey for MHAS/ENASEM 2003 was carried out through pencil-and-paper, face-to-face interviews by fieldwork personnel from INEGI (*Instituto Nacional de Estadística, Geografía e Informática*) in Mexico, during the months of May to September 2003, as a follow-up to the baseline survey of 2001.

The baseline survey in 2001 interviewed target individuals aged 50 or older and their spouse/partner if residing in the same household, regardless of his/her age. For the 2003 re-visit, all age-eligible persons interviewed in 2001 were targeted for follow-up, as well as their spouse/partner. This was attempted even if the household had moved from its 2001 location. If couples had split from their 2001 situation to reside in two different households, a separate interview was attempted with each individual and their new spouse if applicable. In addition, if a baseline respondent had died, an interview was sought in 2003 with a next-of-kin or informed respondent. Thus MHAS/ENASEM 2003 included three types of questionnaires according to the type of interview: a) direct, b) proxy, or c) next-of-kin. Respondents were also classified by their status in the study: a) follow-up, for those who completed an interview in the 2001 baseline, or b) new person, for those who were interviewed in 2003 for the first time, either because they were new spouses of a 2001 respondent, or because, even though they were already a spouse/partner of a respondent in 2001, they failed to complete an interview at the baseline.

A household code was created to capture changes in the situation of the individual or couple interviewed in 2001, to reflect modifications by 2003 in the couple-composition of the target individual, and the spouse/partner if applicable. This is referred to as “updated household,” and the codes reflect the type of change experienced, including divorce/separation, death, or new spouse. In the case of split couples as mentioned above, an interview was sought with both baseline respondents in their respective households and their new spouses if applicable. The updated-household codes capture also whether the household observed in 2003 contains the baseline *sampled* respondent, or the baseline *spouse* of the selected person.

The fieldwork was organized such that the personnel in each regional office of INEGI reported periodically to the central office in Aguascalientes the outcome of the interviews as they were closing the cases during the fieldwork period¹. This strategy was used by INEGI to obtain an early report of the outcome of the interviews. The tables for this report were constructed using the data file provided by the fieldwork personnel from INEGI in Aguascalientes, México.

MHAS/ENASEM 2003 had a target of re-visiting 9,718 households. Of these, 37 households reported that they had split into two, and it was possible to have information on both households. Therefore, the report contains information on the outcome of the visit to 9,755 households (9718 plus 37). Thus the tables presented are based on information from these households that were attempted for re-visit in 2003 after the baseline visit in 2001. The tables

¹ For more details on the fieldwork operations, see the Methodological Document for MHAS/ENASEM 2003.

present disaggregate information perhaps in more-detail than desired, but we decided to provide detailed information rather than group categories. The following paragraphs present a summary of the results shown in the Tables.

Results

Table 1 shows that at the household level, the overall response rate was 94.2% of completed interviews and 5.8% of non-response. From the field report at the household level, we can estimate the number of the individual interviews obtained, using the codes for outcome of the interview at the household level. Using this procedure, Table 2 shows that the household response rates translated into 93.3% response and 6.7% non-response at the individual level. Of the total number of individual interviews obtained, 88% are direct, 8% proxy, and 4% next-of-kin interviews.

The number of next-of-kin interviews obtained from the field report (about 542) is remarkably consistent with the *a priori* expected number of deaths in the MHAS/ENASEM population during a two-year interval, using Mexican life tables. And according to the *a priori* expectations of two-year losses of 15% due to refusals or migration, the resulting loss was quite low.

Table 3 shows that households in less-urban areas had slightly higher response rate (96.6%) compared to those in more-urban communities (93.0%). This was expected, as individuals in less-urban areas of Mexico are less likely to move or to refuse an interview.

A sub-sample of households had been pre-selected for anthropometric measures at the baseline, and the same households were targeted again for measures in 2003. There are similar levels of non-response by whether the household was pre-selected for anthropometric measures or not (Table 4). The response rate for households selected for anthropometric measures was 93.7% compared to 94.3% for those *without* measures.

There is little change reported in the composition of the couple (or individual) that was interviewed at baseline. Table 5 presents the distribution of the households by whether or not there was an interview in 2003 and the type of change undergone (household update) between the two waves. Compared to the household target subject(s) in 2001, most cases (92.6%) are intact in 2003, reporting neither a separation nor a death, or new spouses. In another 5.2% of households, there was one death (one of the spouses died, and there is no new spouse).

Non-response was higher among households in which a separation was reported, compared to intact households or households reporting one or more deaths. Table 6 presents the detailed distribution of the cases by the type of household-update and whether an interview was obtained or not. Among households reporting no separation or deaths (n=9119), non-response was obtained in 5.9% of households. This compares to 1.9% among households in which at least one death was reported (n=529), and 14.9% among households reporting a separation or divorce (n=107).

Non-response was slightly higher among one-person households. Table 7 shows the distribution of households and whether interviews were obtained across one- or two-person households. Of the total of non-response households (n=564), 46% were one-person households, and 54% were couple-households. These proportions compare to a total re-visited of 43% one-person- and 57% two-person-households.

Table 8 provides the distribution of households according to the result of the interview in 2003 and whether households had undergone a change from 2001 to 2003. The results show that next-of-kin interviews were obtained in 47% of the cases from households with one target person in 2001 (n= 254 cases), and another 53% (n= 288) from households with two target individuals. Total household non-response (codes 1400, 2400, and 2440 for the result of the interview), that is, when no-interviews were obtained in the household, are registered mostly (95%) as intact individual/couples².

The propensity to experience a change by the individual/couples was the same by type of area of residence. Table 9 shows the distribution of the sample households according to more/less-urban area of residence and the changes that the target households underwent between 2001 and 2003. Overall, about two-thirds of the sample households (67%) are from more-urban areas and one-third from less-urban areas. Intact households are distributed proportionately across the two areas of residence (about 93% of households in both areas are intact). Deaths also were distributed proportionately by area of residence; 34% of the households with at least one death from baseline respondents were from less-urban areas and 66% from more-urban areas.

Disaggregating the small number of households that experienced some inter-wave change yields small cell sizes. Nevertheless, from Table 9, of the 107 households that reported a separation or divorce, 79 (74%) are from more-urban areas. On the other hand, of the n=102 households reporting new spouses, 43% reside in less-urban areas, and 57% in more-urban areas. The higher-than-proportionate number of households with new spouses in less-urban areas can be explained by the possibility that reported new spouses in 2003 may have been more-common due to temporary absence of the spouse in 2001, and not due to new union formations between the two waves. This is confirmed by the fact that the majority of the cases (83 of 102) reporting new spouses are indeed *not* reporting separation/divorce or death of a spouse. Of the total number of households declaring a new spouse but no separation/divorce or deaths, 42% reside in less-urban areas and 58% in more-urban areas.

MHAS/ENASEM 2001 included an over-sample³ in 6 states of high-migration to the U.S., and Table 10 provides the distribution of responses according to residence in one of these states. About one-third of the 2003 sample (27.3%) resided in one of these states, while the rest (72.7%) lived in other states. Non-response households were under-represented in the high-

² Although a code exists that classifies these cases as intact individuals/couples, in reality the information cannot be accurate in all cases given that interviews were *not* obtained from these households. In some cases, the households had relocated and were not found, thus the information about a change in the target individual/couple status, by definition, was unknown.

³ Over-sample ratio of 1.7 to 1.

migration states; only 24.6% of the non-response households resided in these states. Table 11 shows that the propensity to undergo an inter-wave change in the individual (or couple) status was similar among those residing in high-migration versus other states. About 27% of intact targets (individuals or couples) reside in one of the over-sample states and 73% in other states of Mexico. Similarly, households reporting a separation or divorce, or a death, were distributed in the over-sample versus other-states quite proportionately (28% and 72% respectively).

Table 12 presents the distribution of the 2003 households according to the result of the interview in 2001 compared to the result in 2003. For example, the first entry in the table indicates that in 3,148 households, a single-interview and direct was obtained in 2001 and in 2003. On the other hand, in 168 households, a proxy single-interview was obtained in 2001 and converted to a direct single-one in 2003. In 212 cases, a single-direct in 2001 converted to proxy in 2003. It is important to mention that a conversion from direct- to proxy-interview does not necessarily indicate a worsening-health reason. In many cases, a proxy interview was obtained due to a temporary absence of the target individual.

For next-of-kin interviews in 2003, the table shows that 190 cases originated from single-direct interviews, while 61 from single-proxy interviews in 2001. Another 183 next-of-kin originated from couple interviews in 2001 with direct interviews for each of the two persons. The reader can refer to more details in table 12.

Traditionally certain states tend to have higher non-response rates than others in Mexico, and MHAS/ENASEM was not an exception. Table 13 shows the distribution of the household response rate according to the state of residence (for the 32 states in Mexico). The results show the heterogeneity across states in the non-response rates, from a low of less than 2% for San Luis Potosí and Durango, to a high of 10% for Baja California Norte and 13% in Veracruz.

Finally, Table 14 shows the distribution of the *individual* non-response according to the reasons for the negative outcome. Of the 1022 non-interviews at the individual level, about one-third (30%) were refusals, another 23% were due to absent respondents without a suitable proxy informant, while 27% of the interviews were not obtained due to migration of the respondent (changed location and was unable to locate).

To contrast the relative contribution of each of the covarying factors in the propensity to provide a re-interview, we conducted a simple multivariate regression analysis. We include as dependent variable the outcome YES/NO if at least one 2003 interview was completed in the household, regardless if the interview was direct, proxy or next of kin. As covariates we use the following dummy variables: if residence is in a more-urban area, if the state of residence is an over-sample (high-migration) state, if the household had been pre-selected for anthropometric measures, if a separation/divorce occurred in the inter-wave period, if a death of a target person/couple occurred, and whether the household was targeted for more-than-one interview.

The results of the regression are presented in Table 15, showing the marginal effects (the estimated change in the probability of obtaining an interview in the household) of each covariate, compared to the corresponding reference category for the covariate. The multivariate results are consistent with the univariate results presented above. Residence in a *more-urban area and reporting a separation/divorce* during the inter-wave period are associated inversely with a probability of giving an interview. On the other hand, *reporting a death* in the inter-wave is associated with a higher propensity to get a response in the household at the follow-up.

In summary, we find that the re-contact non-response rates of 5.8% at the household level, and 6.7% at the individual level for the MHAS/ENASEM 2003 follow-up were relatively low. In particular, they are low compared to the *apriori* expectations in the study. The non-response losses due to a change of residential location were also relatively few. This was expected, given the stability of the population of ages 50 and older in Mexico. Very few households underwent a change in the individual/couple composition of the target individual(s) during the two-year inter-wave period. The distribution of the household losses due to non-response was proportionate to whether the household was pre-selected for anthropometric measures or not, by whether the state of residence was an over-sample state or not, and by whether the household contained one or two persons targeted for interview in the 2003 follow-up. The non-response rate was higher among more-urban households as expected, given the mobility of more-urban residents and the propensity to refuse interviews in urban areas to a larger extent than less-urban areas. Non-response rates were also higher among those reporting a separation or divorce during follow-up, compared to intact households or those reporting a death, although the number of households reporting a separation/divorce was quite low. Perhaps the only somewhat surprising (but positive) result in our analyses was that, compared to intact households, the propensity to provide an interview was *higher* for those reporting a death in the inter-wave period.

TABLE No. 1
RESULT OF INTERVIEW - HOUSEHOLD LEVEL

	Total	%
No Interview HH	564	5.78
Completed Interview(s) HH	9191	94.22
TOTAL	9755	100.00

TABLE NO. 2
ESTIMATED INDIVIDUAL RESULT OF INTERVIEW

Individual Non Response Rate = 6.68 %

Individual Response Rate = 93.32 %

Total Number of Attempts = 15,299

Number of Individual Non-Response = 1,022

TYPE OF INTERVIEW:	TOTAL	%
Direct	12,583	88.13
Proxy	1,152	8.07
Next of Kin	542	3.80
TOTAL	14,277	100.00

TABLE No. 3
RESULT OF INTERVIEW 2003 BY AREA OF RESIDENCE

		Area of Residence		TOTAL
		Less urban	More urban	
Result Interview 2003				
No Interview HH	Number of cases	110	454	564
	% of row total	19.50	80.50	100.00
	% of column total	3.39	6.98	5.78
Completed Interview(s) HH	Number of cases	3137	6054	9191
	% of row total	34.13	65.87	100.00
	% of column total	96.61	93.02	94.22
TOTAL	Number of cases	3247	6508	9755
	% of row total	33.29	66.71	100.00
	% of column total	100.00	100.00	100.00

TABLE No. 4
RESULT OF INTERVIEW 2003 BY PRE-SELECTION FOR ANTHROPOMETRIC MEASUREMENTS

		ANTHROPOMETRIC MEASURES		TOTAL
		Not Selected	Selected	
Result Interview 2003				
No Interview HH	Number of cases	448	116	564
	% of row total	79.43	20.57	100.00
	% of column total	5.67	6.26	5.78
Completed Interview(s) HH	Number of cases	7453	1738	9191
	% of row total	81.09	18.91	100.00
	% of column total	94.33	93.74	94.22
TOTAL	Number of cases	7901	1854	9755
	% of row total	80.99	19.01	100.00
	% of column total	100.00	100.00	100.00

TABLE No. 5
DISTRIBUTION OF UPDATED HOUSEHOLDS 2003 BY TYPE

	Total	%
Neither separation nor death; no new spouse	9036	92.63
Neither separation nor death; new spouse	83	0.85
Had a separation and contains sampled resp. 2001, no new spouse	50	0.51
Had a separation and contains sampled resp. 2001, new spouse	10	0.10
Had a separation and contains spouse 2001, no new spouse	41	0.42
Had a separation and contains spouse 2001, new spouse	6	0.06
One 2001 respondent died, no new spouse	511	5.24
One 2001 respondent died, new spouse	3	0.03
Both 2001 respondents died	15	0.16
TOTAL HOUSEHOLDS	9755	100.00

TABLE No. 6
RESULT OF INTERVIEW 2003 BY UPDATED HOUSEHOLD 2003

		UPDATED HOUSEHOLD */									TOTAL
		00	01	10	11	20	21	30	31	32	
Result Interview 2003											
No Interview HH	Number of cases	538	.	8	.	8	.	9	.	1	564
	% of row total	95	.	1	.	1	.	2	.	0	100
	% of column total	6	.	16	.	20	.	2	.	7	6
Completed Interview(s) HH	Number of cases	8498	83	42	10	33	6	502	3	14	9191
	% of row total	92	1	0	0	0	0	5	0	0	100
	% of column total	94	100	84	100	80	100	98	100	93	94
TOTAL	Number of cases	9036	83	50	10	41	6	511	3	15	9755
	% of row total	93	1	1	0	0	0	5	0	0	100
	% of column total	100	100	100	100	100	100	100	100	100	100

Notes:

*/00="Neither separation nor death, no new spouse"

01="Neither separation nor death, new spouse"

02="Neither separation nor death, both sampled resp. 2001 died"

10="Had a separation and contains sampled resp. 2001, no new spouse"

11="Had a separation and contains sampled resp. 2001, new spouse"

12="Had a separation and contains sampled resp. 2001, both sampled resp. 2001 died"

20="Had a separation and contains spouse 2001, no new spouse"

21="Had a separation and contains spouse 2001, new spouse"

22="Had a separation and contains spouse 2001, both sampled resp. 2001 died"

30="One 2001 respondent died, no new spouse"

31="One 2001 respondent died, new spouse"

32="Both 2001 respondents died";

TABLE No. 7
DISTRIBUTION OF RESULT OF INTERVIEW 2003

CODE	RESULT OF INTERVIEW 2003: */	Total	%
1100	One, direct 1st int.	3391	34.76
1200	One, proxy 1st int.	313	3.21
1300	One, next of kin int.	254	2.60
1400	One, no 1st int.	257	2.63
2012	Two, direct 2nd int., proxy int. new person	1	0.01
2110	Two, direct 1st int., direct int. new person	91	0.93
2102	Two, direct 1st int., proxy int. new person	27	0.28
2104	Two, direct 1st int., no new person	3	0.03
2110	Two, direct 1st int., direct 2nd int.	4000	41.00
2120	Two, direct 1st int., proxy 2nd int.	590	6.05
2130	Two, direct 1st int., next of kin int.	230	2.36
2140	Two, direct 1st int., no 2 nd int.	141	1.45
2210	Two, proxy 1st int., direct int. new person	6	0.06
2202	Two, proxy 1st int., proxy int. new person	1	0.01
2204	Two, proxy 1st int., no new person	1	0.01
2210	Two, proxy 1st int., direct 2nd int.	3	0.03
2220	Two, proxy 1st int., proxy 2nd int.	93	0.95
2230	Two, proxy 1st int., next of kin int.	21	0.22

Notes:

*/ One= "Single person"

Two= "Resp. &/or spouse &/or new person &/or deceased person"

Three= "Resp., new person & deceased person"

(Continued)

TABLE No. 7
DISTRIBUTION OF RESULT OF INTERVIEW 2003 (CONTINUED)

CODE	RESULT OF INTERVIEW 2003: */	Total	%
2240	Two, proxy 1st int., no 2nd int.	1	0.01
2301	Two, next of kin int., direct int. new person	1	0.01
2330	Two, next of kin int., next of kin int.	14	0.14
2340	Two, next of kin int., no 2nd int.	3	0.03
2400	Two, no 1st int.	2	0.02
2401	Two, no 1st int., direct int. new person	1	0.01
2430	Two, no 1st int., next of kin int.	1	0.01
2440	Two, no 1st int., no 2nd int.	305	3.13
3131	Three, direct 1st int., next of kin int., direct int. new person	3	0.03
3231	Three, proxy 1st int., next of kin int., direct int. new person	1	0.01
	TOTAL HOUSEHOLDS	9755	100.00

Notes:

*/ One= "Single person"

Two= "Resp. &/or spouse &/or new person &/or deceased person"

Three= "Resp., new person & deceased person"

TABLE No. 8
DISTRIBUTION OF RESULT OF INTERVIEW 2003 BY UPDATED HOUSEHOLDS

CODE	RESULT OF INTERVIEW 2003: **/	UPDATED HOUSEHOLD 2003 */										TOTAL	%
		00	01	10	11	20	21	30	31	32			
		N	N	N	N	N	N	N	N	N			
1100	One, direct 1st int.	3333	2	33	1	21	.	1	.	.	3391	35	
1200	One, proxy 1st int.	306	.	4	.	3	.	.	.	.	313	3
1300	One, next of kin int.	6	.	.	.	.	.	246	.	2	254	3
1400	One, no 1st int.	236	.	8	.	8	.	5	.	.	257	3	
2012	Two, direct 2nd int., proxy int. new person	1	.	.	.	.	.	.	.	.	1	0
2101	Two, direct 1st int., direct int. new person	28	54	.	6	.	3	.	.	.	91	1	
2102	Two, direct 1st int., proxy int. new person	12	13	.	1	.	1	.	.	.	27	0	
2104	Two, direct 1st int., no new person	2	1	.	.	.	.	.	.	.	3	0
2110	Two, direct 1st int., direct 2nd int.	3989	6	2	2	1	.	.	.	.	4000	41
2120	Two, direct 1st int., proxy 2nd int.	586	2	.	.	2	.	.	.	.	590	6
2130	Two, direct 1st int., next of kin int.	5	.	.	.	.	.	225	.	.	230	2
2140	Two, direct 1st int., no 2nd int.	129	.	3	.	6	1	2	.	.	141	1	
2201	Two, proxy 1st int., direct int. new person	2	3	.	.	.	1	.	.	.	6	0	

Notes:

*/ 00="Neither separation nor death, no new spouse"
01="Neither separation nor death, new spouse"
02="Neither a separation nor death, both sampled resp. 2001 died"
10="Had a separation and contains sampled resp. 2001, no new spouse"
11="Had a separation and contains sampled resp. 2001, new spouse"
12="Had a separation and contains sampled resp. 2001, both sampled resp. 2001 died"
20="Had a separation and contains spouse 2001, no new spouse"
21="Had a separation and contains spouse 2001, new spouse"
22="Had a separation and contains spouse 2001, both sampled resp. 2001 died"
30="One 2001 respondent died, no new spouse"
31="One 2001 respondent died, new spouse"
32="Both 2001 respondents died".

**/ One= "Single person"
Two= "Resp &/or spouse &/or new person &/or deceased person"
Three= "Resp, new person & deceased person".

(Continued)

TABLE No. 8
RESULT OF INTERVIEW 2003 BY UPDATED HOUSEHOLDS (CONTINUED)

CODE	RESULT OF INTERVIEW 2003: **/	UPDATED HOUSEHOLD 2003 */									TOTAL	%
		00	01	10	11	20	21	30	31	32		
		N	N	N	N	N	N	N	N	N		
2202	Two, proxy 1st int., proxy int. new person	1	.	.	.	.	.	.	.	.	1	0
2204	Two, proxy 1st int., no new person	1	.	.	.	.	.	.	.	.	1	0
2210	Two, proxy 1st int., direct 2nd int.	3	.	.	.	.	.	.	.	.	3	0
2220	Two, proxy 1st int., proxy 2nd int.	92	1	.	.	.	.	.	.	.	93	1
2230	Two, proxy 1st int., next of kin int.	1	.	.	.	.	.	20	.	.	21	0
2240	Two, proxy 1st int., no 2nd int.	1	.	.	.	.	.	.	.	.	1	0
2301	Two, next of kin int., direct int. new person	.	.	.	.	.	.	1	.	.	1	0
2330	Two, next of kin int., next of kin int.	.	.	.	.	.	.	3	.	11	14	0
2340	Two, next of kin int., no 2nd int.	.	.	.	.	.	.	3	.	.	3	0
2400	Two, no 1st int.	2	.	.	.	.	.	.	.	.	2	0
2401	Two, no 1st int., direct int. new person	.	1	.	.	.	.	.	.	.	1	0
2430	Two, no 1st int., next of kin int.	.	.	.	.	.	.	1	.	.	1	0
2440	Two, no 1st int., no 2nd int.	300	.	.	.	.	.	4	.	1	305	3
3131	Three, direct 1st int., next of kin int., direct int. new person	.	.	.	.	.	.	.	2	1	3	0
3231	Three, proxy 1st int., next of kin int., direct int. new person	.	.	.	.	.	.	.	1	.	1	0
	TOTAL	9036	83	50	10	41	6	511	3	15	9755	100

Notes:

*/ 00="Neither separation nor death, no new spouse"
01="Neither separation nor death, new spouse"
02="Neither a separation nor death, both sampled resp. 2001 died"
10="Had a separation and contains sampled resp. 2001, no new spouse"
11="Had a separation and contains sampled resp. 2001, new spouse"
12="Had a separation and contains sampled resp. 2001, both sampled resp. 2001 died"
20="Had a separation and contains spouse 2001, no new spouse"
21="Had a separation and contains spouse 2001, new spouse"
22="Had a separation and contains spouse 2001, both sampled resp. 2001 died"
30="One 2001 respondent died, no new spouse"
31="One 2001 respondent died, new spouse"
32="Both 2001 respondents died".

**/ One= "Single person"
Two= "Resp &/or spouse &/or new person &/or deceased person"
Three= "Resp, new person & deceased person".

TABLE No. 9
UPDATED HOUSEHOLDS IN 2003 BY AREA OF RESIDENCE

		Area of Residence		TOTAL
		Less urban	More urban	
Updated Household 2003				
Neither separation nor death; no new spouse	Number of cases	3003	6033	9036
	% of row total	33.23	66.77	100.00
	% of column total	92.49	92.70	92.63
Neither separation nor death; new spouse	Number of cases	35	48	83
	% of row total	42.17	57.83	100.00
	% of column total	1.08	0.74	0.85
Had a separation and contains sampled resp. 2001, no new spouse	Number of cases	14	36	50
	% of row total	28.00	72.00	100.00
	% of column total	0.43	0.55	0.51
Had a separation and contains sampled resp. 2001, new spouse	Number of cases	3	7	10
	% of row total	30.00	70.00	100.00
	% of column total	0.09	0.11	0.10
Had a separation and contains spouse 2001, no new spouse	Number of cases	8	33	41
	% of row total	19.51	80.49	100.00
	% of column total	0.25	0.51	0.42
Had a separation and contains spouse 2001, new spouse	Number of cases	3	3	6
	% of row total	50.00	50.00	100.00
	% of column total	0.09	0.05	0.06
One 2001 respondent died, no new spouse	Number of cases	173	338	511
	% of row total	33.86	66.14	100.00
	% of column total	5.33	5.19	5.24
One 2001 respondent died, new spouse	Number of cases	3	.	3
	% of row total	100.00	.	100.00
	% of column total	0.09	.	0.03

TABLE No. 9
UPDATED HOUSEHOLDS IN 2003 BY AREA OF RESIDENCE

		Area of Residence		TOTAL
		Less urban	More urban	
Updated Household 2003				
Both 2001 respondents died	Number of cases	5	10	15
	% of row total	33.33	66.67	100.00
	% of column total	0.15	0.15	0.15
TOTAL	Number of cases	3247	6508	9755
	% of row total	33.29	66.71	100.00
	% of column total	100.00	100.00	100.00

TABLE No. 10
RESULT OF INTERVIEW 2003 BY OVER-SAMPLE STATES

		6 High-Migration States		TOTAL
		No	Yes	
Result of Interview 2003				
No Interview HH	Number of cases	425	139	564
	% of row total	75.35	24.65	100.00
	% of column total	5.99	5.22	5.78
Completed Interview(s) HH	Number of cases	6668	2523	9191
	% of row total	72.55	27.45	100.00
	% of column total	94.01	94.78	94.22
TOTAL	Number of cases	7093	2662	9755
	% of row total	72.71	27.29	100.00
	% of column total	100.00	100.00	100.00

TABLE No. 11
Updated Households in 2003 by Over-Sample States

		6 High-Migration States		TOTAL
Updated Household 2003		No	Yes	
Neither separation nor death; no new spouse	Number of cases	6572	2464	9036
	% of row total	72.73	27.27	100.00
	% of column total	92.65	92.56	92.63
Neither separation nor death; new spouse	Number of cases	64	19	83
	% of row total	77.11	22.89	100.00
	% of column total	0.90	0.71	0.85
Had a separation and contains sampled resp. 2001, no new spouse	Number of cases	43	7	50
	% of row total	86.00	14.00	100.00
	% of column total	0.61	0.26	0.51
Had a separation and contains sampled resp. 2001, new spouse	Number of cases	6	4	10
	% of row total	60.00	40.00	100.00
	% of column total	0.08	0.15	0.10
Had a separation and contains spouse 2001, no new spouse	Number of cases	35	6	41
	% of row total	85.37	14.63	100.00
	% of column total	0.49	0.23	0.42
Had a separation and contains spouse 2001, new spouse	Number of cases	5	1	6
	% of row total	83.33	16.67	100.00
	% of column total	0.07	0.04	0.06
One 2001 respondent died, no new spouse	Number of cases	355	156	511
	% of row total	69.47	30.53	100.00
	% of column total	5.01	5.86	5.24
One 2001 respondent died, new spouse	Number of cases	3	.	3
	% of row total	100.00	.	100.00
	% of column total	0.04	.	0.03

TABLE No. 11
Updated Households in 2003 by Over-Sample States

		Area of Residence		TOTAL
		Less urban	More urban	
Updated Household 2003				
Both 2001 respondents died	Number of cases	10	5	15
	% of row total	66.67	33.33	100.00
	% of column total	0.14	0.19	0.15
TOTAL	Number of cases	7093	2662	9755
	% of row total	72.71	27.29	100.00
	% of column total	100.00	100.00	100.00

TABLE No. 12
RESULTS OF INTERVIEW OBTAINED IN 2003 BY RESULTS OF INTERVIEW OBTAINED IN 2001

CODE	RESULT INTERVIEW 2003: **/	RESULT INTERVIEW 2001: */												TOTAL	%
		110	130	202	203	210	211	212	213	222	230	232	233		
		N	N	N	N	N	N	N	N	N	N	N	N		
1100	One, direct 1st int.	3148	168	17	.	8	2	44	.	4	.	.	.	3391	35
1200	One, proxy 1st int.	212	92	2	1	.	.	3	.	2	1	.	.	313	3
1300	One, next of kin int.	190	61	1	.	.	.	2	.	.	.	.	.	254	3
1400	One, no 1st int.	216	22	1	.	4	.	10	.	4	.	.	.	257	3
2012	Two, direct 2nd int., proxy int. new person	.	.	.	.	1	.	.	.	.	.	.	.	1	0
2110	Two, direct 1st int., direct int. new person	46	7	11	.	19	1	6	.	1	.	.	.	91	1
2102	Two, direct 1st int., proxy int. new person	11	4	6	.	6	.	.	.	.	.	.	.	27	0
2104	Two, direct 1st int., no new person	1	.	.	.	2	.	.	.	.	.	.	.	3	0
2110	Two, direct 1st int., direct 2nd int.	30	2	59	1	40	114	3531	23	145	3	21	31	4000	41
2120	Two, direct 1st int., proxy 2nd int.	5	1	10	1	15	37	459	5	43	.	6	8	590	6
2130	Two, direct 1st int., next of kin int.	1	.	6	.	.	21	183	3	7	.	5	4	230	2
2140	Two, direct 1st int., no 2nd int.	2	.	8	.	15	9	97	1	8	1	.	.	141	1
2210	Two, proxy 1st int., direct int. new person	4	.	.	.	1	.	1	.	.	.	.	.	6	0
2202	Two, proxy 1st int., proxy int. new person	.	.	.	.	1	.	.	.	.	.	.	.	1	0
2204	Two, proxy 1st int., no new person	1	.	.	.	.	.	.	.	.	.	.	.	1	0

Notes:

*/ 110="Sel. R, inform. provided by self"
 130="Sel. R, inform. provided by third person"
 202="Couple, Inform. on sel. R non-interview, SP by self"
 203="Couple, Inform. on sel. R non-interview, SP by third person"
 210="Couple, Inform. on sel. R by self, SP non-interview"
 211="Couple, Inform. about both provided by sel. R"
 212="Couple, Inform. provided by each one"
 213="Couple, Inform. on sel. R provided by self, SP by third person"
 222="Couple, Inform. on both by spouse"

230="Couple, Inform. on sel. R provided by third person, SP non-interview"
 232="Couple, Inform. on sel. R provided by third person, SP by self"
 233="Couple, Inform. on both provided by third person"
 **/ One= "Single person"
 Two= "Resp &/or spouse &/or new person &/or deceased person"
 Three= "Resp, new person & deceased person"

(Continued)

TABLE No. 12
RESULTS OF INTERVIEW OBTAINED IN 2003 BY RESULTS OF INTERVIEW OBTAINED IN 2001 (CONTINUED)

CODE	RESULT INTERVIEW 2003: **/	RESULT INTERVIEW 2001: */												TOTAL	%
		110	130	202	203	210	211	212	213	222	230	232	233		
		N	N	N	N	N	N	N	N	N	N	N	N	N	
2210	Two, proxy 1st int., direct 2nd int.	.	.	.	.	.	.	.	.	2	.	.	1	3	0
2220	Two, proxy 1st int., proxy 2nd int.	1	1	4	.	1	6	63	1	4	.	4	8	93	1
2230	Two, proxy 1st int., next of kin int.	.	.	.	.	1	3	14	.	.	.	1	2	21	0
2240	Two, proxy 1st int., no 2nd int.	.	.	.	.	.	.	.	.	.	.	1	.	1	0
2301	Two, next of kin int., direct int. new person	1	.	.	.	.	.	.	.	.	.	.	.	1	0
2330	Two, next of kin int., next of kin int.	.	.	2	.	.	.	7	1	1	.	1	2	14	0
2340	Two, next of kin int., no 2nd int.	.	.	.	.	.	.	3	.	.	.	.	.	3	0
2400	Two, no 1st int.	.	.	1	.	.	.	1	.	.	.	.	.	2	0
2401	Two, no 1st int., direct int. new person	1	.	.	.	.	.	.	.	.	.	.	.	1	0
2430	Two, no 1st int., next of kin int.	.	.	.	.	.	.	1	.	.	.	.	.	1	0
2440	Two, no 1st int., no 2nd int.	2	.	13	1	12	16	231	4	11	1	4	10	305	3
3131	Three, direct 1st int., next of kin int., direct int. new person	.	.	.	.	.	.	3	.	.	.	.	.	3	0
3231	Three, proxy 1st int., next of kin int., direct int. new person	.	.	.	.	.	.	1	.	.	.	.	.	1	0
	TOTAL	3872	358	141	4	126	209	4660	38	232	6	43	66	9755	100

Notes:

*/ 110="Sel. R, inform. provided by self"
130="Sel. R, inform. provided by third person"
202="Couple, Inform. on sel. R non-interview, SP by self"
203="Couple, Inform. on sel. R non-interview, SP by third person"
210="Couple, Inform. on sel. R by self, SP non-interview"
211="Couple, Inform. about both provided by sel. R"
212="Couple, Inform. provided by each one"
213="Couple, Inform. on sel. R provided by self, SP by third person"

222="Couple, Inform. on both by spouse"
230="Couple, Inform. on sel. R provided by third person, SP non-interview"
232="Couple, Inform. on sel. R provided by third person, SP by self"
233="Couple, Inform. on both provided by third person"
**/ One= "Single person"
Two= "Resp &/or spouse &/or new person &/or deceased person"
Three= "Resp, new person & deceased person"

TABLE No. 13
RESULT OF INTERVIEW 2003 BY STATES

STATES	RESULT OF INTERVIEW 2003		2003 Response Rate
	# Eligible for Re- Interview	# Re- Interviewed	
AGUASCALIENTES	280	263	263
BAJA CALIFORNIA	257	231	231
BAJA CALIFORNIA SUR	274	249	249
CAMPECHE	265	255	255
COAHUILA	297	274	274
COLIMA	265	258	258
CHIAPAS	282	265	265
CHIHUAHUA	277	261	261
DISTRITO FEDERAL	282	262	262
DURANGO	400	393	393
GUANAJUATO	510	483	94.71
GUERRERO	294	272	92.52
HIDALGO	261	254	97.32
JALISCO	466	437	93.78
ESTADO DE MÉXICO	295	279	94.58
MICHOACÁN	414	395	95.41
MORELOS	268	255	95.15
NAYARIT	444	414	93.24
NUEVO LEÓN	275	257	93.45

(continued)

TABLE No. 13
RESULT OF INTERVIEW 2003 BY STATES (CONTINUED)

STATES	RESULT OF INTERVIEW 2003		2003 Response Rate
	# Eligible for Re- Interview	# Re- Interviewed	
OAXACA	274	259	94.53
PUEBLA	284	264	92.96
QUERÉTARO	256	250	97.66
QUINTANA ROO	236	223	94.49
SAN LUIS POTOSÍ	261	257	98.47
SINALOA	290	279	96.21
SONORA	281	272	96.80
TABASCO	248	231	93.15
TAMAULIPAS	275	248	90.18
TLAXCALA	274	259	94.34
VERACRUZ	284	274	86.97
YUCATÁN	267	253	94.76
ZACATECAS	428	401	93.69
TOTAL	9755	9191	94.22

TABLE No. 14
TYPE OF INDIVIDUAL NON-INTERVIEW 2003

	Total	%
Changed location and cannot be located	274	26.81
Refused Core Interview	304	29.75
Refused Proxy Interview	14	1.37
Refused Next of Kin Interview	9	0.88
Unable without informant	23	2.25
Absent and there is no informant	237	23.19
Deceased without an informant	9	0.88
Deceased in 2001 and no interview in 2003	1	0.10
Other	113	11.06
Not specified	38	3.72
TOTAL	1022	100.00

TABLE No. 15
MULTIVARIATE ANALYSIS OF RESPONSE AT THE HOUSEHOLD LEVEL

**DEP VAR: RESPONSE. Dummy 1=Completed Interview (at least one) in 2003, 0=no
(includes direct, proxy, or next-of-kin interview).

. dprobit;

Iteration 0: log likelihood = -2155.0434
Iteration 1: log likelihood = -2111.5441
Iteration 2: log likelihood = -2110.194
Iteration 3: log likelihood = -2110.1867
Iteration 4: log likelihood = -2110.1867

Probit estimates	Number of obs = 9755
	LR chi2(6) = 89.71
	Prob > chi2 = 0.0000
Log likelihood = -2110.1867	Pseudo R2 = 0.0208

RESPONSE	dF/dx	Std. Err.	z	P>|z|	x-bar	[	95% C.I.]
murb*	-.0349133	.0044209	-7.12	0.000	.667145	-.043578	-.026249	
over_s*	.0059344	.0050007	1.16	0.245	.272886	-.003867	.015736	
anthrop*	-.0066535	.0059976	-1.14	0.254	.190056	-.018408	.005102	
separ*	-.079615	.0322159	-3.32	0.001	.010969	-.142757	-.016473	
death*	.0392167	.0062285	3.95	0.000	.054229	.027009	.051424	
one_int*	-.0022701	.0046162	-0.49	0.622	.432086	-.011318	.006778	
obs. P	.9421835							
pred. P	.9459702	(at x-bar)						

(*) dF/dx is for discrete change of dummy variable from 0 to 1
z and P>|z| are the test of the underlying coefficient being 0

RESPONSE	1=completed at least one interview in the household, 0=no (includes direct, proxy, or next-of-kin interviews).
MURB	1= more-urban area, 0= less-urban area
OVER_S	1= state of residence is over-sample state, 0=no
ANTHROP	1= household was pre-selected for anthropometric measures, 0=no
SEPAR	1= household reports a separation/divorce of target(s), 0=no
DEATH	1= household reports a death of target(s), 0=no (reference= intact; no separation or divorce or death).
ONE_INT	1= one interview-household, 0=two-interview household at baseline