

ANNEX III

METHODOLOGICAL NOTE ON THE POSSIBLE UNDERESTIMATION OF OLDER INDIVIDUALS LIVING WITH CHILDREN

The household composition of older persons in the present publication is classified into mutually exclusive categories, including living alone, living with spouse only, living with children/children-in-law, living with grandchild (without children), living with other relatives and living with non-relatives. Since the living arrangement is inferred from the information regarding the relationship of each household member to the head of the household, the classification is straightforward whenever the older person is either the head of the household, the spouse of the head, or the parent or parent-in-law of the head. In the cases where the older person has another relationship to the household head, it is often not clear whether the household also contains a child of that person. Most of these ambiguous cases were classified in this publication as “living with other relatives, but not with children”. The present annex discusses the number of cases that may have been misclassified.

Uncertainties in classification derive from the way in which relationship to the head of household was coded, particularly in the Demographic and Health Surveys (DHS), which provided much of the information employed in the present report (see the box). For example, if an older person is the brother of the household head, and the household also contains someone listed as “other relative”, the latter person could be the child of the brother of the head. If two “other relatives” are present, one might be the parent of the other.

In order to assess the extent of this problem, a special tabulation was conducted for the set of DHS available for this publication, to examine the proportion of older persons who could have been living with children but might have been misclassified as living with other relatives or non-relatives instead. More specifically, older persons were classified into three categories:

1. Those for whom the determination whether at least one of an individual's

RELATIONSHIP TO HEAD OF HOUSEHOLD AS CODED IN DHS SURVEYS

1. Head
2. Wife or husband
3. Son or daughter
4. Son- or daughter-in-law
5. Grandchild
6. Parent
7. Parent-in-law
8. Brother or sister
9. Co-spouse^a
10. Other relative
11. Adopted or foster child
12. Not related

In addition, for a small number of persons the relationship was unknown or the information was missing. In South Africa, an additional category, “niece or nephew”, was added.

^a This category appears infrequently in the coding, and only in some countries.

children or children-in-law is in the household is straightforward. This includes cases where the older person is the household head, the spouse of the head or the parent or parent-in-law of the head.

2. Those for whom the determination of the classification of “living with children” is not straightforward, in that they do not belong to the groups in category (1), but for whom there are no other persons in the household who might be the individual's child.
3. Those for whom the determination of the classification of “living with children” is not straightforward and who might have a child in the household.

The second category includes: (a) those whose relationship to the head is sibling, grandchild or “other relative”, whenever there is no “other relative” in the household who is at least 15 years younger than the reference person; (b) those who are children of the head, whenever the household contains no grandchild of the head at least 15 years younger than the reference person; and (c) non-relatives and those with an unknown relationship to the head, whenever there is no other “non-relative” at least 15 years younger than themselves. The third category comprises: (a) those whose relationship to the head is sibling, grandchild or “other relative”, if the household contains an “other relative” at least 15 years younger than themselves; (b) those who are children of the head, if there is a grandchild of the head at least 15 years younger than themselves; and (c) non-relatives and those with an unknown relationship to the head if there is another “non-relative” at least 15 years younger than themselves. It should be noted that some of these combinations are very infrequent for the over-60 age group: for instance, older persons are rarely listed as the child of the household head.

In this publication, persons in group (3), cases (a) and (b), were considered to be living with other relatives, but not with children or grandchildren. Those in group (3), case (c), were considered to be living with non-relatives only. The size of group (3) provides an upper-bound estimate of the proportion who may have been living with children but were classified as living with other relatives or non-relatives.

A summary of the results is displayed in table A.III.1. The classification is based on the “de jure” population of the Demographic and Health Surveys—that is to say, usual residents of the household, as reported by the survey respondents. For older persons under the Group 1 and Group 2 headings of the table, there was enough information to determine whether or not the person was living with a child. Group 3 covers the ambiguous cases, persons who may have been living with a child. Thus, the proportion in the third situation gives an idea of the maximum extent to which the proportion of older persons living with children might be underestimated in the present publication.

The results indicate that the potential underestimation of the number of older persons living with children usually amounts to only a few percentage points. The main reason is that, on average, 94 per cent of older persons are the spouse of the head, a parent or parent-in-law of the head, or the head of the household themselves, and in these cases, the determination from the “relationship to head” variable of whether the person has a child or child-in-law in the household is straightforward. The proportion of older persons for whom classification is straightforward ranges from about 80 per cent in the Comoros to more than 98 per cent in Turkey, Kyrgyzstan and Rwanda. Only in four African countries is the proportion lower than 90 per cent. In all cases but that of the Dominican Republic and Rwanda, the proportion is higher for older men than older women.

Even when co-residence with children cannot be inferred directly from information on the relationship to the head of the household, in many cases the absence of possible matches in the household means that it is possible to exclude the possibility that an individual’s child is present. The proportion of older persons in this situation (under the Group 2 heading in table A.III.1) ranges from 0.1 per cent in Turkey to more than 11 per cent in the Comoros. In all but five countries, this situation is more common among older women than older men.

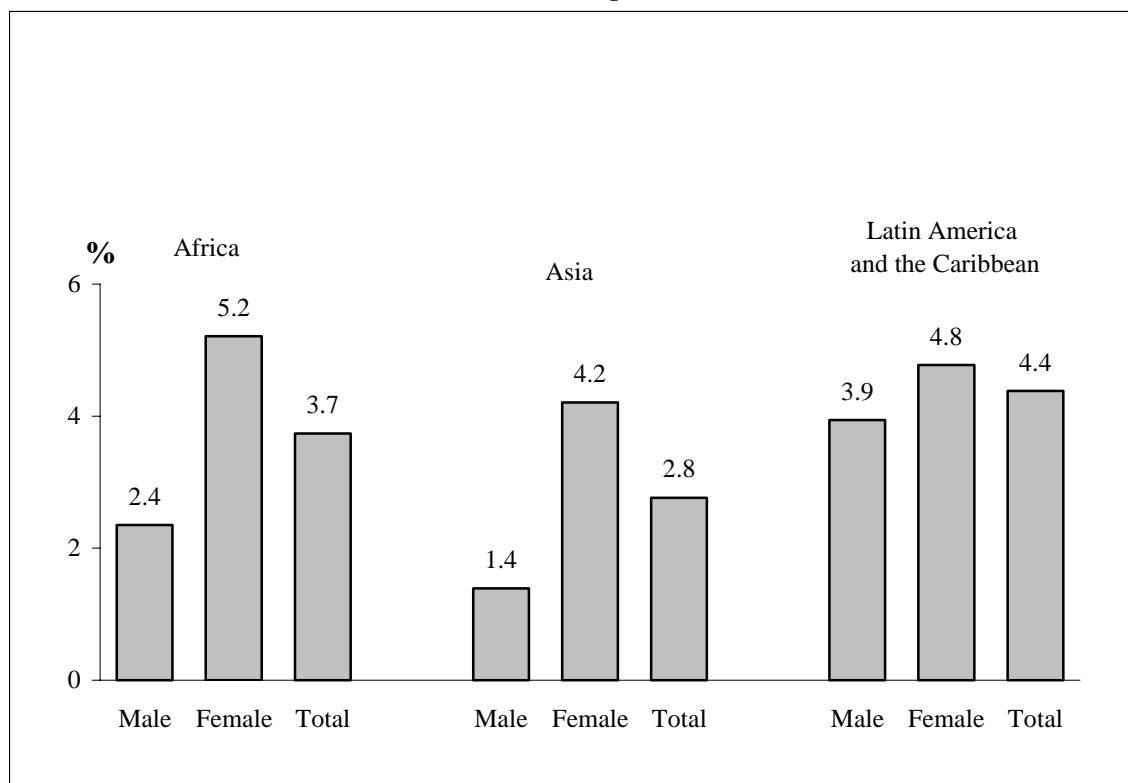
Finally, for the third group, where persons actually living with a child might have been misclassified as not residing with children when they actually were (under Group 3 heading in table A.III.1), the proportion ranges from under 1 per cent in Rwanda to nearly 10 per cent in Gabon, with a mean of 3.7 per cent. Because it is likely that many persons in this category were not actually living with a child, the magnitude of the underestimation of older persons living with children is, in fact, lower than that suggested by the proportions of older persons in this situation.

Averaging the proportions for countries in each region, the percentage of older persons for whom co-residence is indeterminate is slightly higher in Latin America and the Caribbean (4.4 per cent) than in Africa (3.7 per cent) or Asia (2.8

per cent). In all regions underestimation of co-residence with children appears to be more likely for women than men (see figure A.III.1). Among women, the proportion of possibly misclassified cases was higher in Africa (5.2 per cent) than in the other regions, while among men the proportion was highest in Latin America and the Caribbean (3.9 per cent). Although the proportions of potentially misclassified cases were generally low, there are some countries where the

proportions were substantially higher. Among women, for instance, the figures for the Comoros, Gabon and Yemen were particularly high, above 10 per cent. The variation among older males was smaller, with the highest values found in the Comoros (7.2 per cent) and Colombia (6.1 per cent). For both sexes, the classification problem appears to be less serious in Asia (except for the case of older females in Yemen) than in either Africa or Latin America and the Caribbean.

Figure A.III.1. Proportion of cases for which classification of co-residence with children is indeterminate, by sex and region (Percentage)



Source: Table A.III.1.

TABLE A.III.1. PERCENTAGE DISTRIBUTION OF OLDER PERSONS ACCORDING TO WHETHER DETERMINATION OF CO-RESIDENCE WITH CHILDREN IS STRAIGHTFORWARD, IS NOT STRAIGHTFORWARD BUT CAN BE INFERRED, OR IS INDETERMINATE, BY SEX, DEMOGRAPHIC AND HEALTH SURVEYS

Country	Date	Group 1 <i>Determination of co-residence with child is straightforward</i>			Group 2 <i>No one in household who could be the older person's child</i>			Group 3 <i>Indeterminate</i>		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Africa										
Benin	2001	97.7	92.7	95.2	0.9	2.2	1.6	1.4	5.0	3.2
Burkina Faso.....	1998/99	97.8	89.3	94.1	1.0	5.1	2.8	1.1	5.7	3.1
Cameroon	1998	93.7	83.4	88.1	2.9	9.7	6.5	3.4	7.0	5.4
Central African Republic.....	1994/95	95.2	90.5	92.8	1.9	3.9	3.0	2.9	5.6	4.3
Chad	1996/97	95.8	85.3	90.8	2.0	4.8	3.3	2.2	9.9	5.9
Comoros	1996	83.3	77.3	80.3	9.5	12.6	11.1	7.2	10.1	8.7
Côte d'Ivoire	1998/99	93.3	79.3	86.6	4.9	16.3	10.3	1.9	4.5	3.1
Egypt	2000	98.6	94.7	96.7	0.5	0.9	0.7	1.0	4.4	2.6
Ethiopia	2000	96.5	92.9	94.7	1.0	2.3	1.7	2.4	4.8	3.6
Gabon	2000	90.9	80.7	85.3	3.3	6.0	4.8	5.8	13.3	9.9
Ghana	1998	98.3	95.9	97.0	0.5	1.0	0.8	1.2	3.2	2.2
Guinea	1999	97.1	87.9	93.0	1.5	6.4	3.7	1.4	5.7	3.3
Kenya	1998	98.2	97.9	98.0	0.4	0.7	0.5	1.4	1.5	1.5
Madagascar.....	1997	98.8	94.6	96.6	0.6	1.2	0.9	0.7	4.2	2.5
Malawi.....	2000	97.6	96.2	96.9	0.5	1.7	1.2	1.9	2.1	2.0
Mali	2001	99.2	93.0	96.8	0.5	2.7	1.3	0.3	4.3	1.9
Morocco	1992	97.0	91.8	94.5	0.9	2.3	1.6	2.1	5.8	3.9
Mozambique.....	1997	97.3	93.0	95.2	1.2	3.2	2.2	1.6	3.8	2.6
Namibia	1992	91.3	88.9	90.0	4.0	7.0	5.6	4.8	4.1	4.4
Niger.....	1998	98.0	91.5	95.1	0.8	4.3	2.4	1.2	4.2	2.6
Nigeria.....	1999	98.9	92.5	96.2	0.2	2.4	1.1	1.0	5.2	2.8
Rwanda.....	2000	98.3	98.4	98.3	0.3	1.0	0.7	1.3	0.6	0.9
Senegal	1997	94.4	80.5	87.3	3.5	14.4	9.1	2.1	5.1	3.6
South Africa	1998	94.4	94.0	94.1	1.0	1.5	1.3	4.6	4.6	4.6
Togo	1998	96.3	87.3	91.7	1.5	7.1	4.4	2.2	5.6	3.9
Uganda	1995	96.0	91.3	93.7	1.0	3.8	2.4	3.0	4.9	3.9
United Republic of Tanzania....	1999	94.1	88.7	91.7	1.7	3.2	2.4	4.2	8.1	6.0
Zambia.....	2001/02	97.3	95.0	96.2	1.2	1.1	1.2	1.5	3.9	2.7
Zimbabwe.....	1999	96.2	94.7	95.4	1.3	1.0	1.1	2.6	4.3	3.5
Asia										
Armenia.....	2000	98.5	97.5	97.9	0.9	0.3	0.5	0.6	2.2	1.6
Bangladesh	1999/00	98.4	93.1	96.1	0.7	1.8	1.2	0.9	5.1	2.7
India.....	1998/99	96.6	95.0	95.8	1.3	1.2	1.3	2.1	3.8	2.9
Indonesia	1997	97.6	93.0	95.2	0.6	1.5	1.1	1.9	5.5	3.7
Kazakhstan	1999	98.7	97.5	97.9	0.1	0.2	0.2	1.2	2.4	1.9
Kyrgyzstan	1997	99.7	97.3	98.3	0.2	0.8	0.5	0.2	2.0	1.2
Nepal	2001	97.9	94.9	96.5	0.7	0.9	0.8	1.4	4.2	2.7
Pakistan	1990/91	96.0	93.9	95.1	1.9	2.1	2.0	2.2	4.0	2.9
Philippines.....	1998	96.9	92.8	94.7	0.8	2.1	1.5	2.3	5.2	3.9
Turkey	1998	99.1	97.3	98.2	0.1	0.1	0.1	0.8	2.6	1.7

TABLE A.III.1 (continued)

Country	Date	Group 1 <i>Determination of co-residence with child is straightforward</i>			Group 2 <i>No one in household who could be the older person's child</i>			Group 3 <i>Indeterminate</i>		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Uzbekistan	1996	98.0	97.9	97.9	0.8	0.4	0.5	1.2	1.8	1.5
Yemen	1991/92	97.0	84.4	91.3	1.1	3.7	2.3	1.9	11.9	6.5
Latin America and the Caribbean										
Bolivia	1998	97.5	95.9	96.6	0.4	0.9	0.7	2.0	3.3	2.7
Brazil	1996	97.1	93.3	95.0	0.6	1.0	0.8	2.3	5.7	4.1
Colombia	2000	92.3	91.7	92.0	1.6	2.1	1.9	6.1	6.3	6.2
Dominican Republic	1999	94.3	95.5	94.9	0.8	0.8	0.8	4.9	3.7	4.3
Guatemala	1998/99	96.4	94.2	95.3	0.9	2.2	1.5	2.8	3.6	3.2
Haiti	2000	92.8	92.4	92.6	2.2	3.2	2.8	5.0	4.3	4.6
Nicaragua	1997/98	92.4	91.5	92.0	2.2	2.5	2.4	5.4	6.0	5.7
Paraguay	1990	94.5	92.0	93.2	1.0	2.2	1.6	4.5	5.8	5.2
Peru	2000	96.8	94.9	95.8	0.7	0.8	0.8	2.5	4.3	3.4

Source: Demographic and Health Surveys.