Figure 1. Percentage distribution of postabortion patients admitted to public-sector hospitals, by type of abortion, Egypt, 1996 (N=4,153)

Note: Abortion type was determined according to World Health Organization classification criteria.

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certainly induced</td>
<td>58%</td>
</tr>
<tr>
<td>Probably induced</td>
<td>2%</td>
</tr>
<tr>
<td>Possibly induced</td>
<td>2%</td>
</tr>
<tr>
<td>Spontaneous</td>
<td>35%</td>
</tr>
</tbody>
</table>

To classify abortion-related morbidity, we applied the protocol recommended by the World Health Organization (WHO). Based on information from the patient and the physician’s examination, abortions are classified into the following four categories:

- **Certainly induced**, when the woman herself reports inducing the abortion, or when there is evidence of trauma or of a foreign body in the genital tract;
- **Probably induced**, when sepsis or peritonitis is present and the woman indicates that the pregnancy was unplanned (i.e., she says she was using a contraceptive method or, if not, for reasons other than a desired pregnancy);
- **Possibly induced**, when only one of the two conditions for classifying a case as probably induced is present; and
- **Spontaneous**, when none of the conditions necessary for the three previously cited categories are present, or when the woman states that the pregnancy was planned and desired.

**Results**

**Caseload Estimates**

Among the 22,656 obstetric and gynecologic admissions during a continuous 30-day period, 60% were for obstetrics, 21% were for gynecology and 19% were for treatment of an abortion (miscarriage and induced abortions combined, including inevitable, incomplete, missed and complete abortions). These findings indicate a ratio of approximately 31 postabortion patients to every 100 obstetric patients in public-sector hospitals during a 30-day period.

Only 5% of the postabortion cases could be classified as certainly induced, and more than one-third (35%) were classified as spontaneous abortions (Figure 1). The majority, however, were labeled either as possibly induced (58%) or as probably induced (2%).

There was a significant difference (p<0.001) in the mean age of patients across the four categories. The mean age was 30.4 years among patients whose abortions were classified as certainly induced, 29.3 among those classified as possibly induced, 28.2 among those classified as possibly induced and 25.7 among those classified as spontaneous. Patients whose abortions were classified as certainly induced were older than patients in other categories, while patients whose abortions were classified as spontaneous were younger—even though the biological risk of miscarriage is known to increase with age.

The postabortion patients in this study reported a total of 31,375 previous pregnancies and 2,492 previous abortions (both spontaneous and induced). Hence, we derived an abortion ratio of 7.95 abortions of all types per 100 pregnancies for this hospitalized population. In order to generalize this ratio to the entire population, we multiplied the number of abortions by a factor of 6.6667, in order to increase the 15% sample up to the level of all public-sector hospitals included in the sampling frame.

In this way, we produced monthly and annual estimates of the total number of abortions treated in all Egyptian public-sector hospitals. We assumed that for every two postabortion cases, there is one woman who has a complete abortion without seeking hospital care; thus, we used a multiplier of 0.5 to represent the number of abortions that do not lead to medical treatment in hospitals. We reduced the resulting amount by 35% to remove the proportion of cases estimated to be spontaneous abortions in our earlier application of the WHO classification scheme. We then divided this figure by the total number of births (1.74 million), estimated abortions and miscarriages in Egypt in 1994. This procedure yielded an estimated ratio of 14.8 induced abortions (including abortions classified as probably or possibly induced) per 100 pregnancies, a rate comparable to that in North Africa and Southern Africa (Table 1).

**Patient Characteristics**

We examined whether postabortion patients differed from women of reproductive age in general. The medical record form included a limited range of social and demographic indicators, which we compared to the characteristics of women from the 1995 Egypt DHS (Table 2, page 28).

Overall, the mean age of abortion patients (27.4 years) was younger than that of the general population of women of reproductive age. According to the 1995 Egypt DHS, slightly more than one-third of the general population was younger than 30, compared with almost two-thirds of the postabortion patients. The abortion patients’ education level was also lower than that of women of reproductive age in the larger population: Approximately 61% of postabortion patients had no formal schooling, compared with 43% of the 1995 DHS sample. Corresponding to their younger mean age, the postabortion patients also were of lower parity than the general population of reproductive-age Egyptian women. For example, 16% of the postabortion patients had never had children, in contrast to 9% of women in the DHS sample.

Other data for the postabortion patients indicate that for some of these women, it was not their first treatment for an unwanted pregnancy.

*Although this classification has been used repeatedly since its promulgation, some researchers have expressed dissatisfaction with its ambiguity and weak validity. Recently, promising alternative systems have begun to emerge—Source: Jewkes RK et al., Methodological issues in the South African incomplete abortion study, *Studies in Family Planning*, 1997, 28(3): 228–234. Nevertheless, because the WHO classification scheme is the currently accepted standard, we used it despite its limitations.

†The multiplier selected here is admittedly low, and arbitrarily so. (In Latin America, for example, a multiplier of 3–7 has been recommended—Source: Singh S and Henshaw S, 1996, reference 4.) Because of very strong religious and cultural traditions against abortion in Egypt, the incidence of willfully inducing abortion of a recognized pregnancy is judged to be relatively low. In addition, the few anthropological studies of abortion practices in Egypt that have been published indicate that among women seeking to avoid carrying an unwanted pregnancy to term, menstrual regulation (medical interventions to induce bleeding, including the insertion of an IUD) is the method most frequently used. A critically important distinction is made between deliberately inducing an abortion of a recognized pregnancy and inducing an abortion of an unrecognized pregnancy through an act akin to menstrual regulation.