to mean that for every woman who obtained postabortion care, a certain number of others also had an induced abortion but did not receive or require treatment for complications. The product of the multiplier and the number of women treated for complications of induced abortion is an estimate of the number of induced abortions. As noted earlier, our estimate of the number of women treated for abortion complications was derived from multiple data sources. Prospective Morbidity Survey caseloads during the 30-day data collection period were multiplied by 12.2 to provide the number of women receiving postabortion care in 2009. In addition, the two estimates of postabortion care caseloads obtained from the Health Facilities Survey—cases in the past month and those in the typical month—were each multiplied by 12 to produce annualized numbers. The three data points were then averaged to create a best composite estimate of the annual caseload for each facility. After weighting the data to adjust for nonparticipating facilities and for proportional sampling of private facilities, we estimate that a total of 29,500 women received postabortion care in Malawi in 2009 (Table 2).

This estimate includes both women who had induced abortions and those who had spontaneous abortions. Because of the stigma surrounding the reporting of induced abortions and the difficulty of clinically differentiating complications of spontaneous abortions from those of induced abortions, survey respondents were not asked to distinguish between the two types of abortion complication patients. Instead, the AICM uses an indirect approach to estimate the number of women treated in facilities for complications of each type of abortion.

In particular, the number of late spontaneous abortions (those that occurred at 13–21 weeks’ gestation and thus would have required women to obtain facility-based care*) is estimated to be 3.41% of the number of live births, a proportion determined from clinical studies of spontaneous pregnancy loss. We estimated the number of births in Malawi in 2009 by applying age-specific fertility rates from the 2010 DHS (for the three-year period preceding the survey) to the number of women in the population in 20097 yielding an estimate of 585,100 live births (Table 3). The number of late spontaneous abortions, therefore, would have been about 19,950. However, not all women who have late spontaneous abortions obtain care at a health facility; as a proxy for the proportion who do, we used the proportion of women who gave birth at a health facility in a recent year (54% nationally; 51–61% across regions). By applying these proportions to the number of spontaneous abortions, we estimate that 10,800 women in Malawi were treated in health facilities for complications of spontaneous abortion in 2009. Subtracting this number from the number of women treated for any abortion complications (29,500) yields the number of women treated for complications of induced abortion (18,700).

To calculate the multiplier that accounts for women who did not need or receive treatment, we used estimates from Health Professionals Survey participants of the proportion of women in the four population subgroups (urban poor, urban nonpoor, rural poor and rural nonpoor) who receive postabortion care if they have an abortion. These four estimates were weighted according to the subgroups’ representation among all women of reproductive age. Using data from the 2004–2005 Integrated Household Survey22 in combination with 2008 census data on urban-rural population composition, we estimate that in 2009, 45% of women were rural poor, 7% were urban poor, 40% were rural nonpoor and 8% were urban nonpoor. The multiplier is the inverse of the weighted proportion of abortion recipients who were treated in health care facilities; in Malawi, this proportion was 28% and the multiplier was 3.6 (i.e., 1.0/0.28). We applied this multiplier to the number of women treated for complications of induced abortion to produce estimates of the number of women who had abortions in 2009, both for Malawi as a whole and for the country’s major regions. Given that these are approximate measures of abortion incidence, we also provide upper and lower estimates by applying two alternative multipliers (2.6 and 4.6) obtained by reducing or increasing the value of the multiplier by 1.0.

### Validity Check

We used data from facility logbooks provided and tracked by the Ministry of Health as a validity check of the robustness of the estimate of the annual postabortion care caseload. No special efforts were made for this study to ensure the completeness of the logbook data; the data were collected as recorded. Logbook data were available from 124 health facilities in Malawi

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*Women who have early pregnancy loss (before 13 weeks’ gestation) are not expected to need facility-based care, and losses at or beyond 22 weeks are classified as fetal deaths, not spontaneous abortions.

To estimate the number of women of reproductive age by age and province in 2009, we applied the annual growth rate of Malawi’s population from 1998 to 2008 (2.8%) to 2008 census data; the resulting estimate was 2,883,800 women aged 15–44.