Can DHS household files be used to provide an accurate estimate of the market share and age structure of large religious groups?

Many developing countries do not ask a census question about religion. In such countries, the highest quality survey with data about religion is often a Demographic and Health Survey (DHS). However, most information collected in DHS surveys pertains to women and men of reproductive age. However, many DHS surveys include a household member recode file that includes information on the age and sex of all household members, including children and the elderly, as well as the religion of the household head. If the religion of the household head is attributed to all members of the household, we can generate a full age structure for religious groups. Religious diversity within the household could introduce error into this procedure. Additionally, if the DHS sampling strategy does not produce a representative sample of the child and elderly population in a country, this could also introduce error. In this paper, we document the religious estimates produced by various ways of using the DHS files (female estimates from the female file, male estimates from the male file, estimates from a re-weighted merged male and female file, and estimates from the household member recode file). We quantify the differences produced by these various estimates. When census or other high quality data on religious composition is available, we compare these external data sources to DHS estimates to evaluate which DHS estimation procedure generates the most reliable results.