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**Assessment of Pregnancy
Outcomes for Women, 15-44
Years of Age, in Two Regions
of the Republic of Georgia:
Imereti and Kakheti**

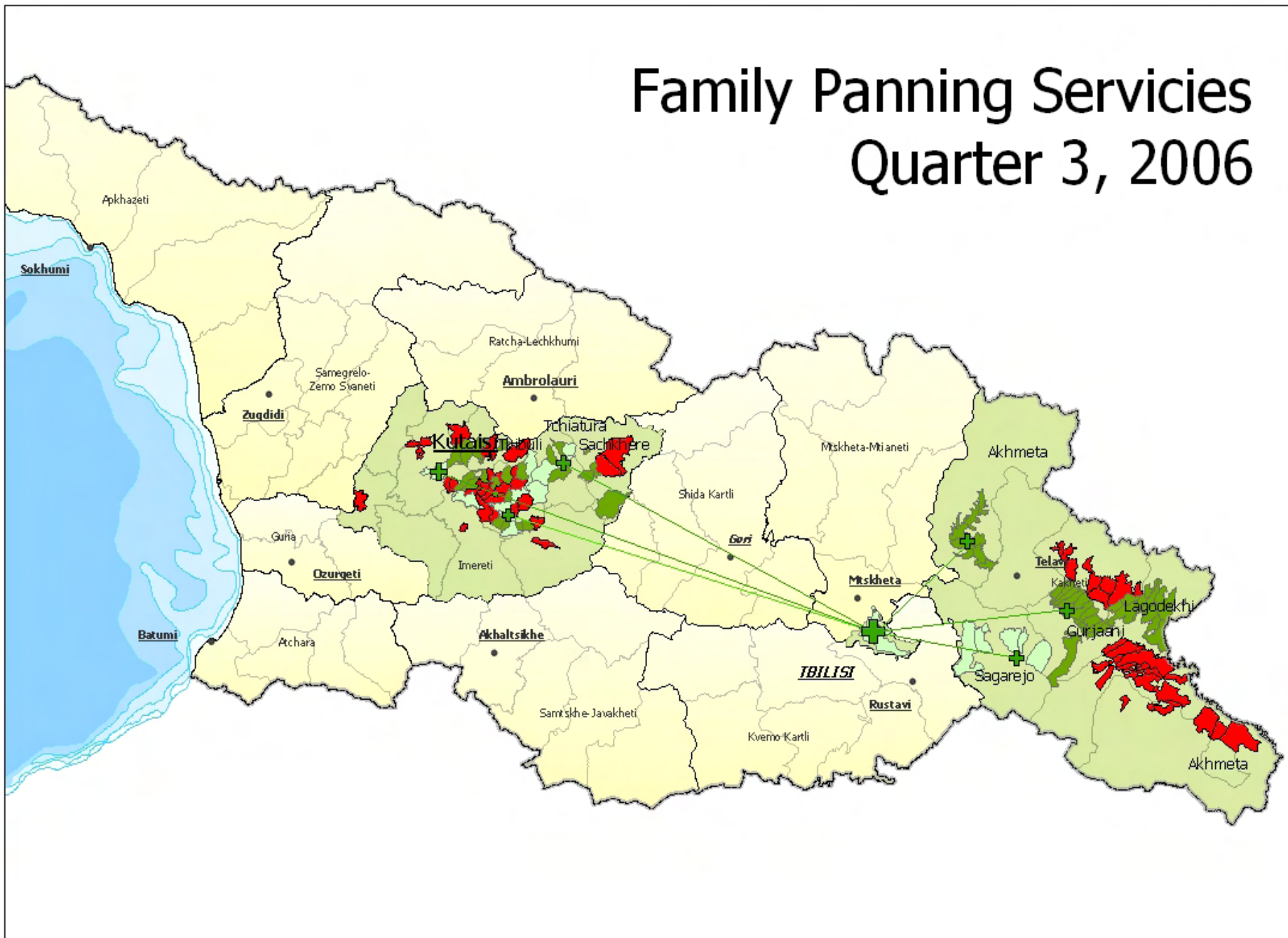
by

Mariella C. Tefft, R.N., M.S.

About Georgia

- **Situated on the eastern shores of the Black Sea in the South Caucasus, Georgia shares borders with Russia, Turkey, Armenia, and Azerbaijan.**
- **First Georgian Kingdoms of Colchis and Iberia were established around 2,000 B.C. St. Nino brought Christianity to Georgia in 337 A.D.**
- **Geographically diverse, climatic zones range from subtropical on the coast, to Alpine in the Caucasus Mountains, to desert-like conditions in the southeast.**
- **Georgia has abundant natural resources, with plenty of fertile soil to continue its ancient wine-making tradition, which is famous the world over.**
- **After being dominated by the Russian Empire and the Soviet Union for 200 years, Georgia regained its independence in 1991. Georgia then struggled through a civil war and a war of secession with the break-away region of Abkhazia. With the Rose Revolution in November, 2003, Georgia made its choice to become a modern, Western-oriented, democracy. It is making steady progress to combat corruption and strengthen its democratic, military, judicial, and economic capabilities.**
- **Georgia's population is approximately 4.3 million people, of which 52% live in urban areas. Approximately one million women of reproductive age (15-44 years of age) reside in Georgia.**

Family Panning Services Quarter 3, 2006





Introduction

- **The first two national, population-based women's reproductive health surveys in the Republic of Georgia (*RHS 1999 and RHS 2005*) were conducted in 1999/2000 and in 2005 by the National Center for Disease Control (*NCDC*) in Tbilisi, Georgia, with technical assistance from Division of Reproductive Health, Centers for Disease Control and Prevention (*DRH/CDC*) in Atlanta, Georgia.**
- **The purpose of *RHS 1999 and RHS 2005* was to evaluate the reproductive health status of women, 15-44 years of age, in the Republic of Georgia, eight and fourteen years after its independence from the former Soviet Union.**



Objectives

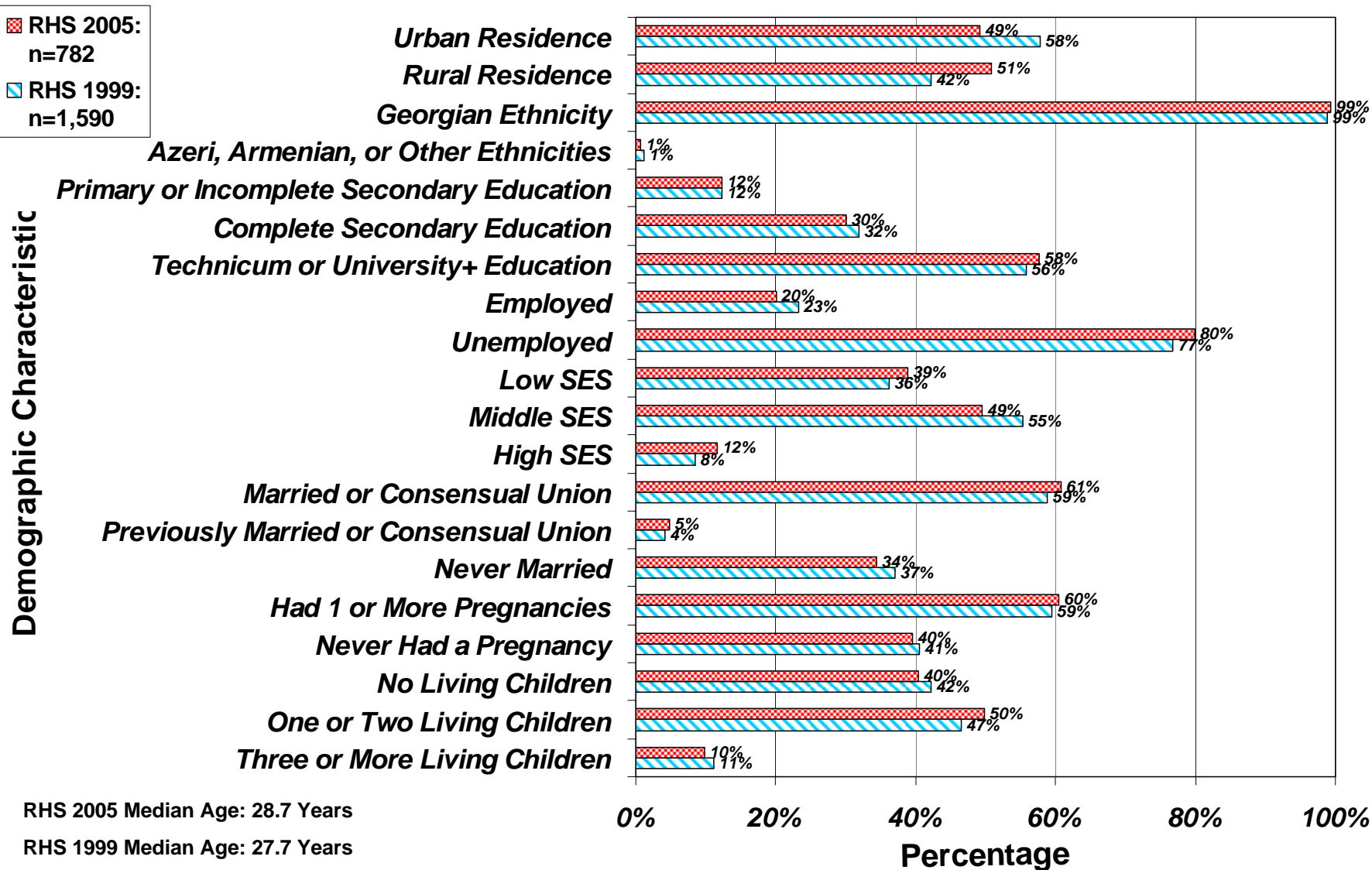
- **To utilize survey data collected from *RHS 1999* and *RHS 2005* to evaluate the pregnancy outcomes of women, 15-44 years of age, residing in two regions of the Republic of Georgia: *Imereti and Kakheti***

- **To assess the overall and group-specific levels and trends in:**
 - *Fertility*
 - *Induced Abortion*
 - *Contraceptive Prevalence*
 - *Unmet Need for Modern Contraception*

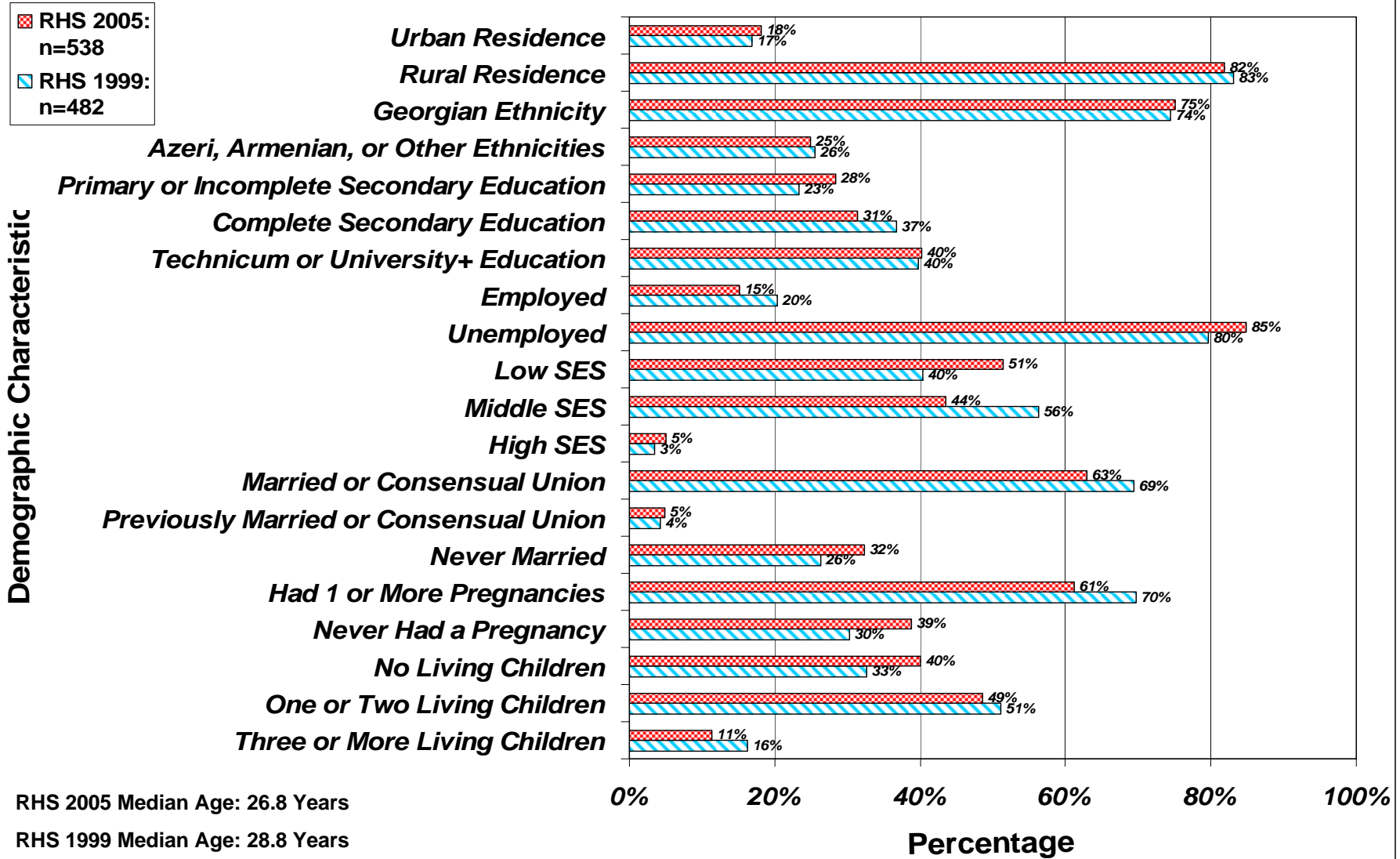
- **To identify subgroups of women at higher risk for unintended pregnancies resulting in induced abortion, based on demographic characteristics**

- **To enable managers of reproductive health programs, funded by *USAID* and *UNFPA*, to monitor and evaluate their current activities and to develop new targeted interventions**

Demographic Characteristics of the Imereti Women, 15-44 Years of Age, Who Participated in the Reproductive Health Surveys of 1999 and 2005



Demographic Characteristics of the Kakheti Women, 15-44 Years of Age, Who Participated in the Reproductive Health Surveys of 1999 and 2005



Main Demographic Differences Between Regions in 2005

Imereti

- **Less Rural: 51%**
- **Fewer Azeri and Other Ethnic Groups: 1%**
- **More with Higher Education: 58%**
- **Fewer with Low SES: 39%**

Kakheti

- **More Rural: 82%**
- **More Azeri and Other Ethnic Groups: 25%**
- **Fewer with Higher Education: 40%**
- **More with Low SES: 51%**

Main Demographic Differences Between 1999 and 2005 Surveys

Imereti

- **9% Increase in Rural Residence: 42% to 51%**
- **4% Increase in High SES: 8% to 12%**

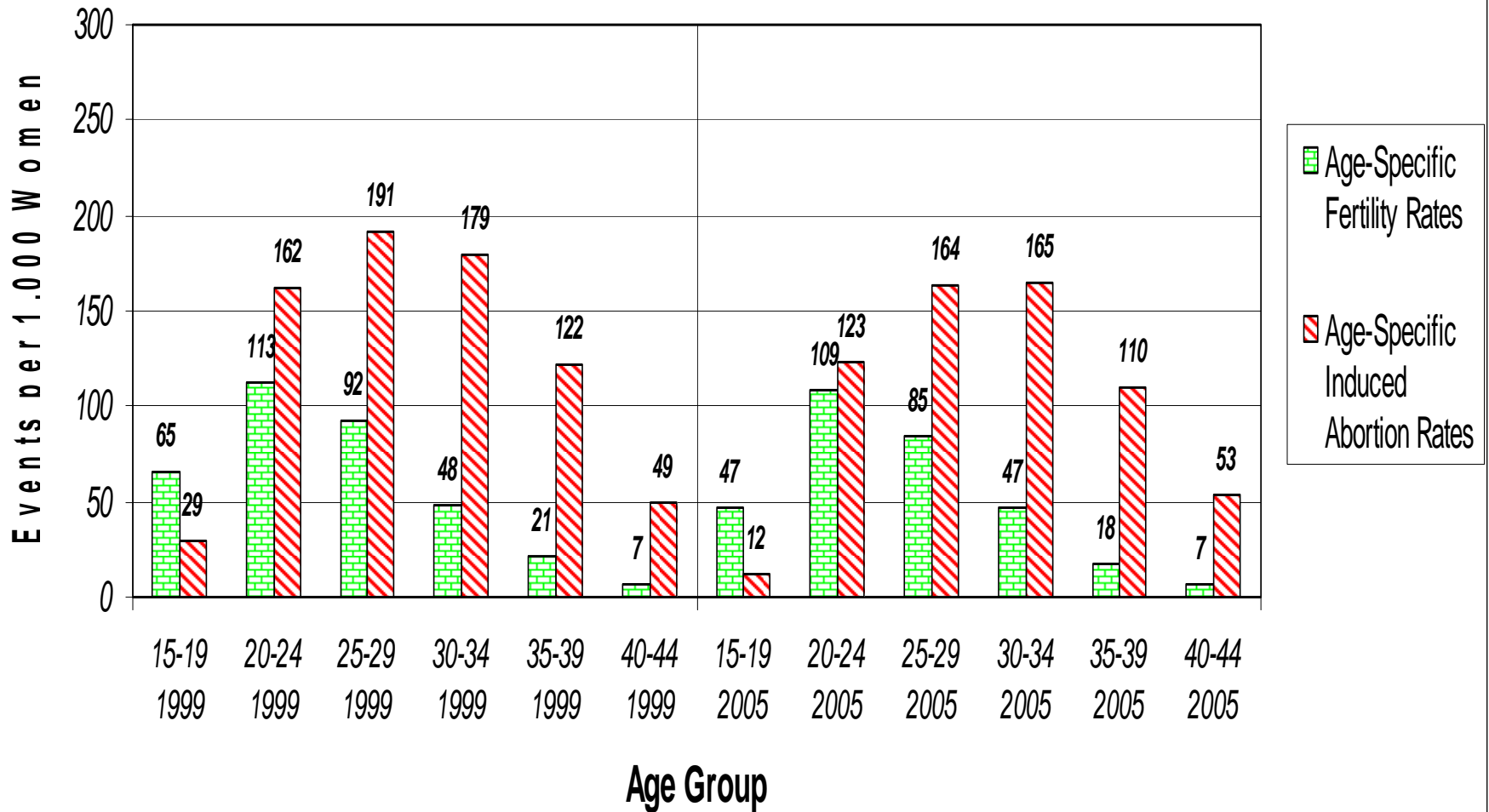
Kakheti

- **5% Increase in Primary or Incomplete Secondary Education: 23% to 28%**
- **11% Increase in Lower SES: 40% to 51%**
- **6% More Who Never Married: 26% to 32%**

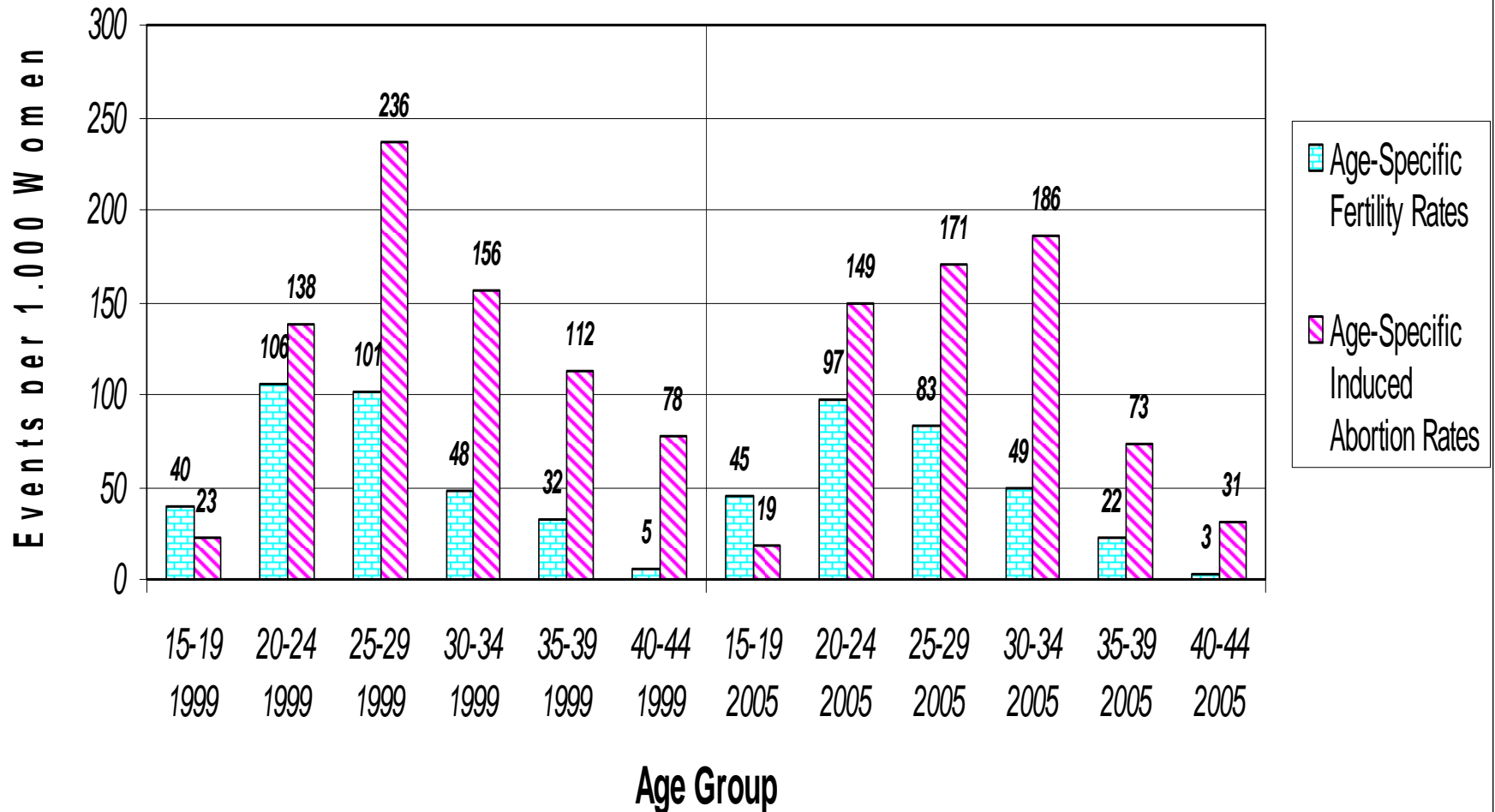
Definitions of Measurements Used in this Assessment

- ***Three Year, Age-Specific Fertility or Induced Abortion Rate:***
 - ***Numerator:*** the number of live births or induced abortions that occurred in the 36-month period preceding each survey, grouped in five-year age intervals by the woman's age at the time of pregnancy outcome, multiplied by 1,000.
 - ***Denominator:*** the number of woman-years lived in each specified five-year age group by the women during the 36-month period preceding each survey.
- ***Total Fertility or Abortion Rate:*** the average number of live births or induced abortions a woman would have during her reproductive lifetime (15-44 years) if she experienced the age-specific fertility or induced abortion rates calculated above.
- ***Current Contraceptive Prevalence:*** the percentage of a specified group of women who are *currently using (in the last 30 days)* any method or doing anything to prevent pregnancy.
- ***Unmet Need for Modern Contraception:***
 - ***Numerator:*** the sum of current traditional contraceptive users and nonusers of contraceptives at risk of unintended pregnancy.
 - ***Denominator:*** a specified group of women.

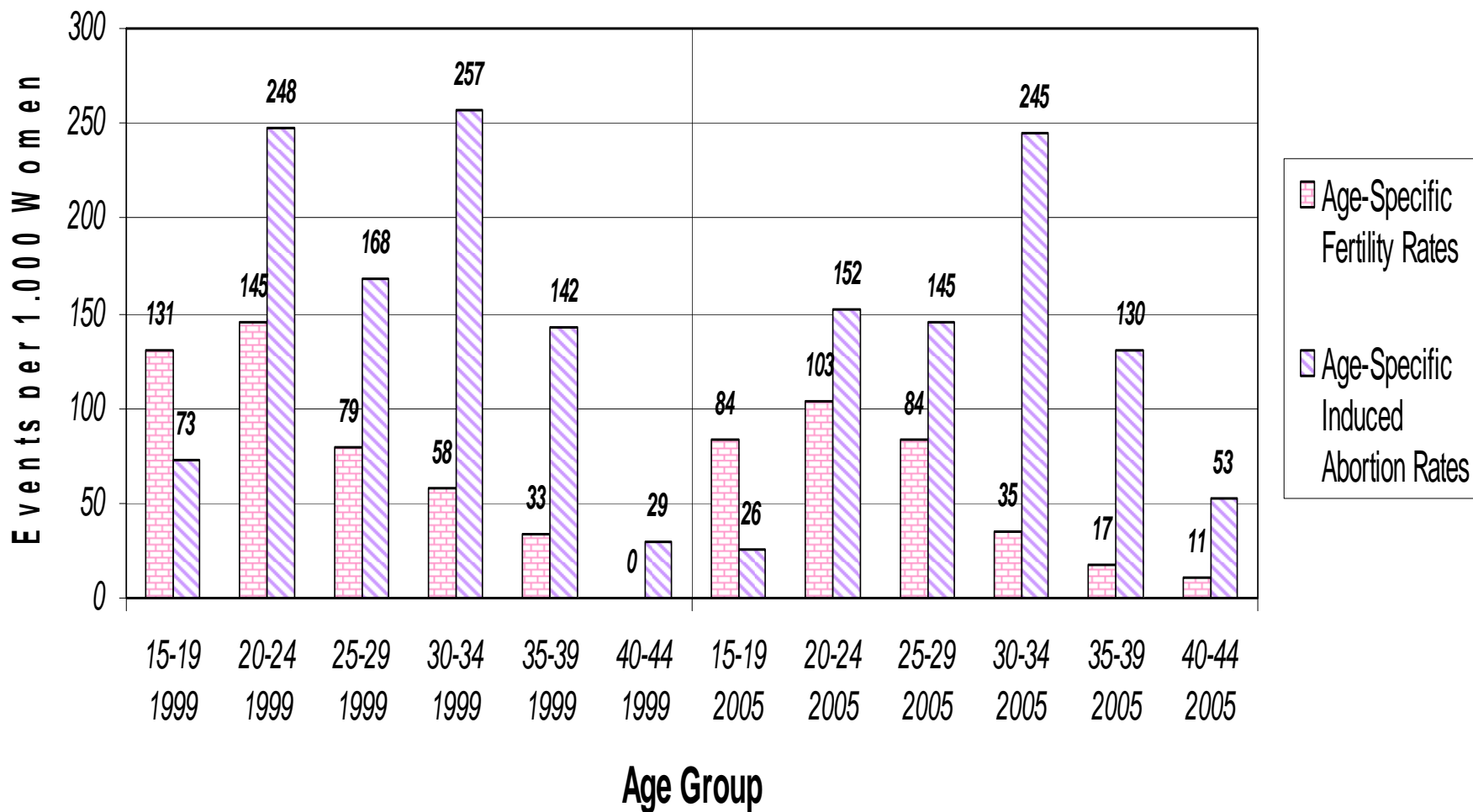
Three-Year, Age-Specific Fertility and Induced Abortion Rates Among All Women, 15-44 Years of Age, in Georgia by Reproductive Health Survey



Three-Year, Age-Specific Fertility and Induced Abortion Rates Among All Women, 15-44 Years of Age, in Imereti by Reproductive Health Survey



Three-Year, Age-Specific Fertility and Induced Abortion Rates Among All Women, 15-44 Years of Age, in Kakheti by Reproductive Health Survey



Main Differences in Age-Specific Rates Between Regions in 2005

Fertility was:

- 87% higher in Kakheti (84) than in Imereti (45) among women 15-19 years of age.
- 40% higher in Imereti (49) than in Kakheti (35) among women 30-34 years of age.

Induced Abortion was:

- 32% higher in Kakheti (245) than in Imereti (186) among women 30-34 years of age.
- 71% to 78% higher in Kakheti than in Imereti among women 35-44 years of age.

Main Differences in Age-Specific Rates Between 1999 and 2005 Surveys

Fertility in:

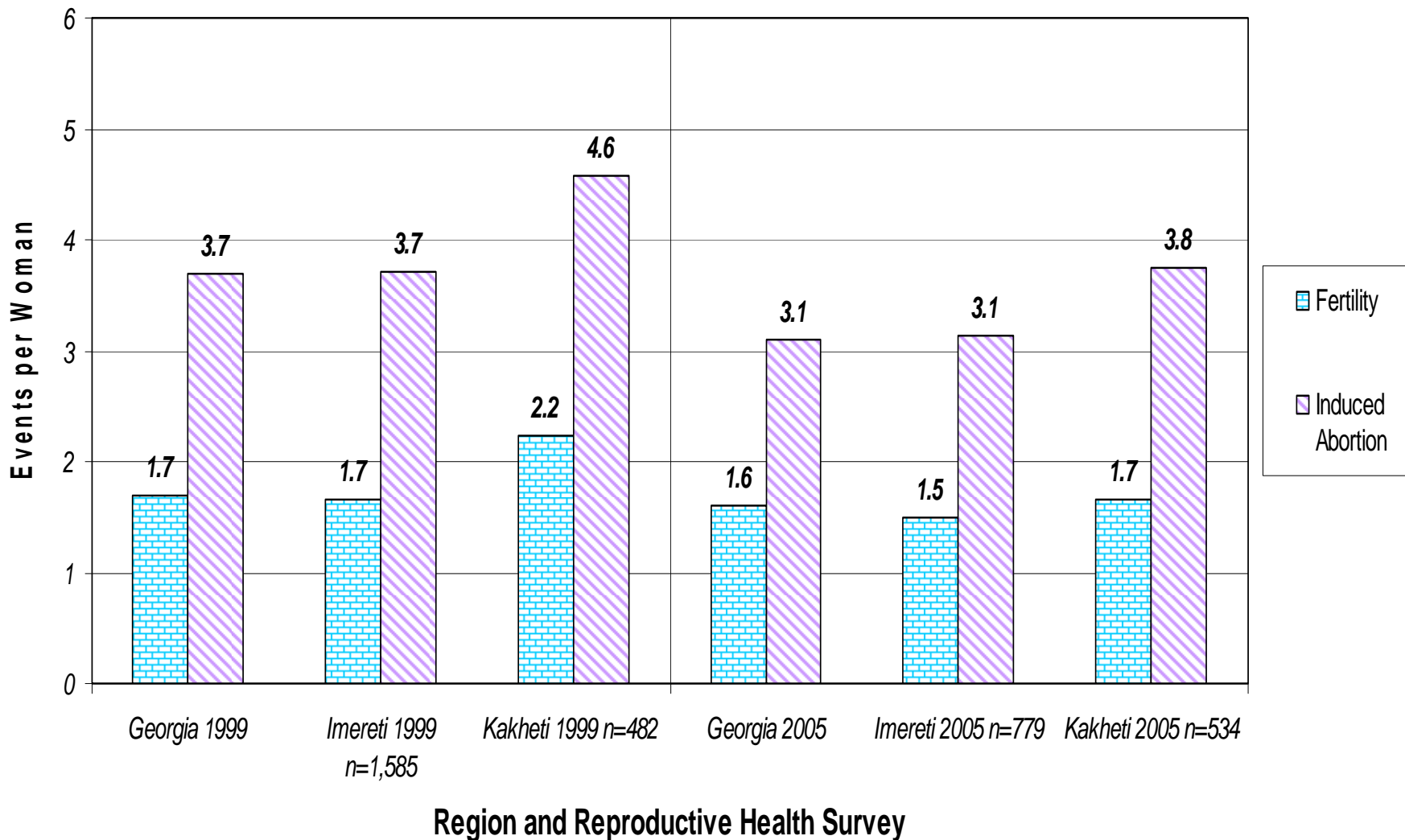
- Kakheti decreased 36% to 48% across all age groups, except in the 25-29 age group.
- Imereti decreased slightly in 4 out of 6 age groups, but it increased slightly (13%) in the 15-19 age group (40 to 45).

Induced Abortion in:

- Kakheti decreased across the first 5 age groups, 15-39, with the largest decrease (64%) occurring in the 15-19 age group (73 to 26), but it increased 83% in the 40-44 age group (29 to 53).
- Imereti decreased 17% to 60% in 4 out of 6 age groups, but it increased 19% in the 30-34 age group (156 to 186).

❖ Only one age group, the 15-19 year olds, had a fertility rate consistently higher than the abortion rate in both surveys and for both regions. For all later age groups, the abortion rate was consistently higher than the fertility rate in both surveys and for both regions.

Total Fertility and Induced Abortion Rates Among All Women, 15-44 Years of Age, by Region and Reproductive Health Survey



Main Differences in Total Rates Among All Women, 15-44 Years of Age, Between Regions in 1999 and in 2005

Total Fertility Rate:

- in 1999 was 34% higher in Kakheti (2.23) than in Imereti (1.66).
- in 2005 was 11% higher in Kakheti (1.66) than in Imereti (1.50).

Total Induced Abortion Rate:

- in 1999 was 23% higher in Kakheti (4.58) than in Imereti (3.72).
- in 2005 was 19% higher in Kakheti (3.75) than in Imereti (3.14).

Main Differences in Total Rates Among All Women, 15-44 Years of Age, Between Surveys in Imereti and in Kakheti

Total Fertility Rate:

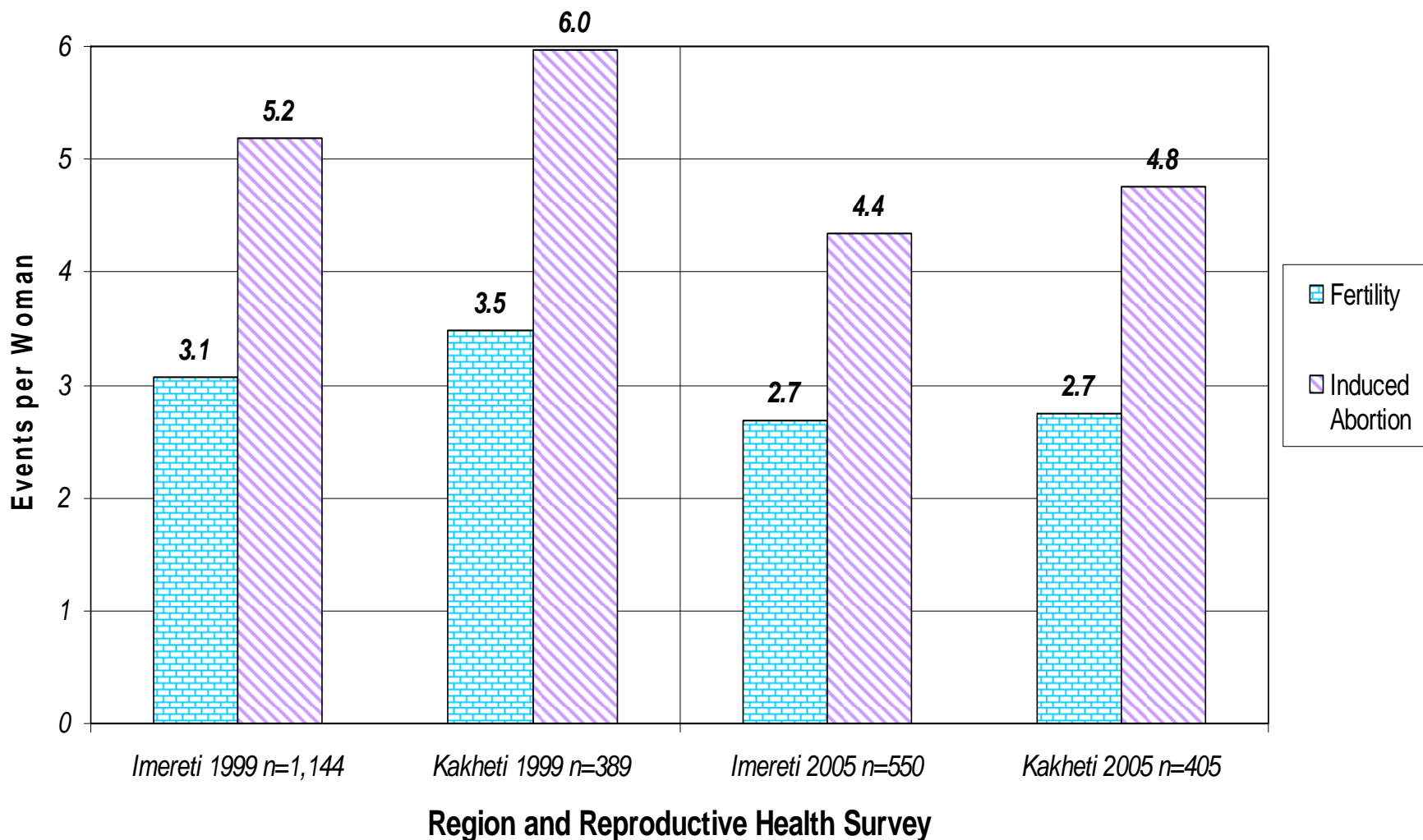
- in Imereti decreased 10% between 1999 (1.66) and 2005 (1.50).
- in Kakheti decreased 26% between 1999 (2.23) and 2005 (1.66).

Total Induced Abortion Rate:

- in Imereti decreased 16% between 1999 (3.72) and 2005 (3.14).
- in Kakheti decreased 18% between 1999 (4.58) and 2005 (3.75).

❖ Total induced abortion rates ranged from 2.1 to 2.2 times as high as total fertility rates in both surveys and for both regions.

Total Fertility and Induced Abortion Rates Among Ever-Married Women, 15-44 Years of Age, by Region and Reproductive Health Survey



Main Differences in Total Rates Among Ever-Married Women, 15-44 Years of Age, between Regions in 1999 and in 2005

Total Fertility Rate:

- in 1999 was 14% higher in Kakheti (3.49) than in Imereti (3.07).
- in 2005 was similar in Kakheti (2.74) and in Imereti (2.69).

Total Induced Abortion Rate:

- in 1999 was 15% higher in Kakheti (5.97) than in Imereti (5.19).
- in 2005 was 9% higher in Kakheti (4.75) than in Imereti (4.35).

Main Differences in Total Rates Among Ever-Married Women, 15-44 Years of Age, between Surveys in Imereti and in Kakheti

Total Fertility Rate:

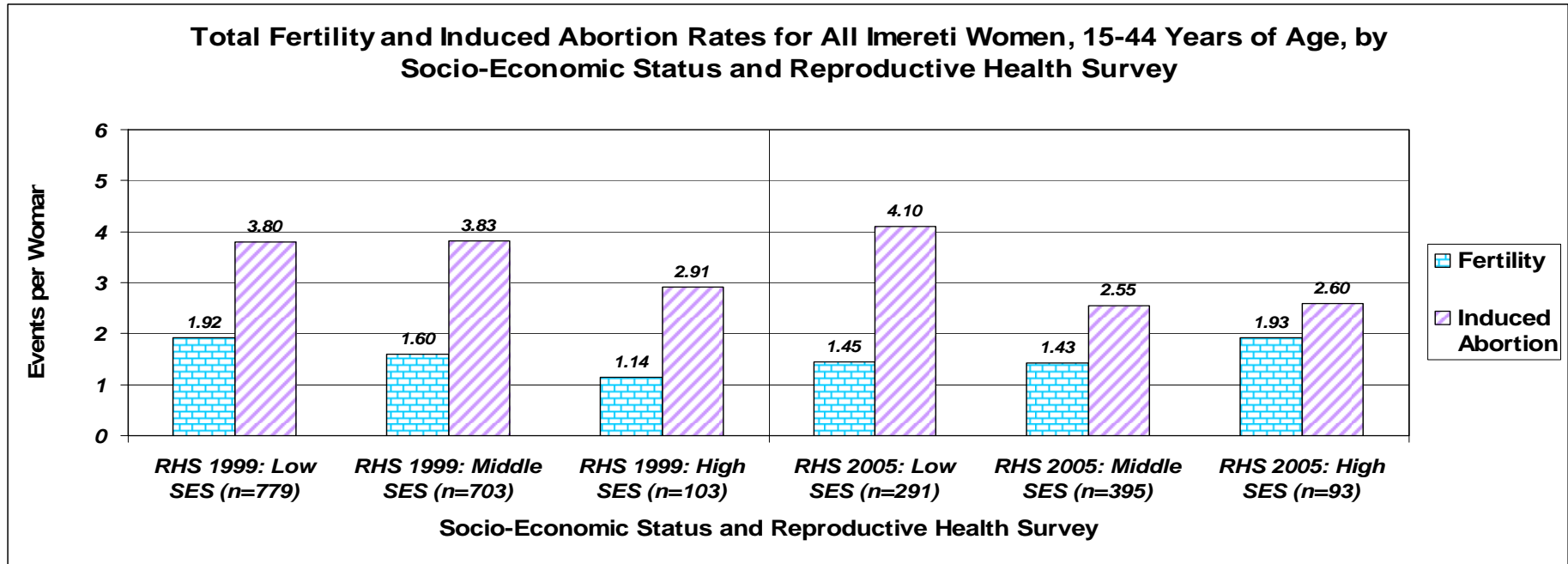
- in Imereti decreased 12% between 1999 (3.07) and 2005 (2.69).
- in Kakheti decreased 21% between 1999 (3.49) and 2005 (2.74).

Total Induced Abortion Rate:

- in Imereti decreased 16% between 1999 (5.19) and 2005 (4.35).
- in Kakheti decreased 20% between 1999 (5.97) and 2005 (4.75).

❖ Total induced abortion rates ranged from 1.6 to 1.7 times as high as total fertility rates in both surveys and for both regions.

Socio-Economic Differences in Imereti: Total Rates by Survey



Total Fertility Rate in Imereti:

➤ in 1999 decreased as SES improved: the rate in Middle SES (1.60) was 17% lower than in Low SES (1.92), and the rate in High SES (1.14) was 29% lower than in Middle SES (1.60).

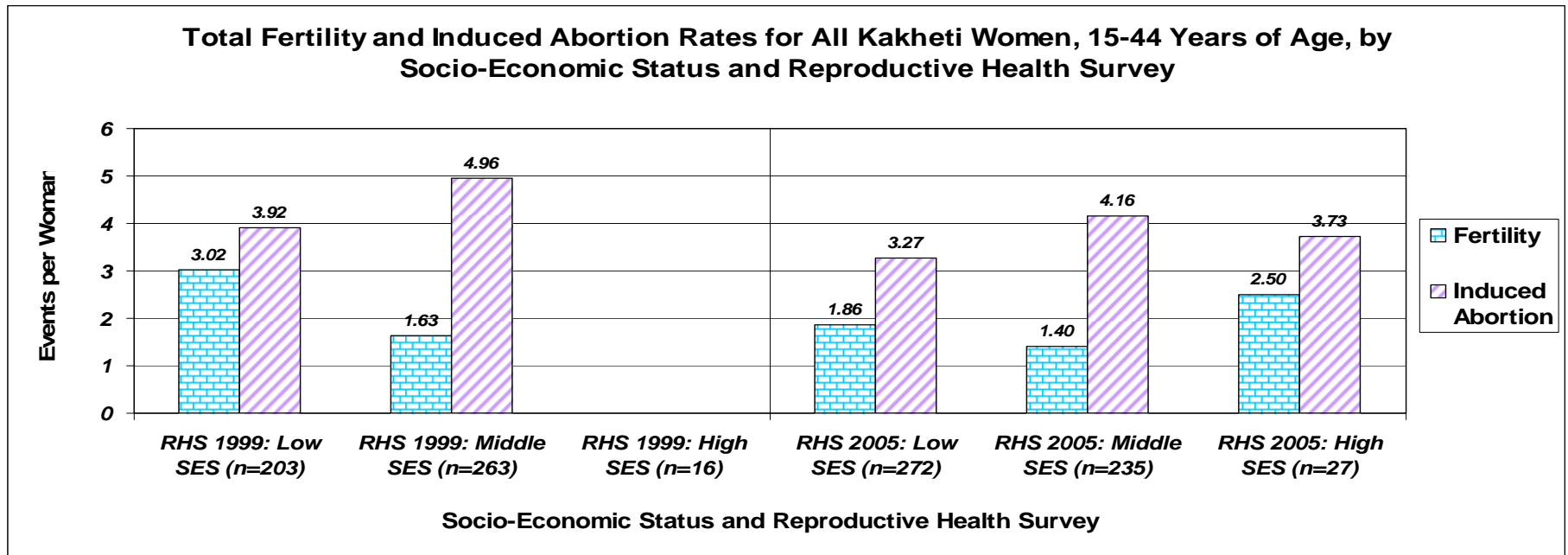
➤ in 2005 was similar in Low SES (1.45) and Middle SES (1.43), and increased by 35% in High SES (1.93).

Total Induced Abortion Rate in Imereti:

➤ in 1999 was similar in Low SES (3.80) and Middle SES (3.83), and decreased by 24% in High SES (2.91).

➤ in 2005 was 61% higher in Low SES (4.10) than in Middle SES (2.55). The rate in Middle SES (2.55) and High SES (2.60) was similar.

Socio-Economic Differences in Kakheti: Total Rates by Survey



Total Fertility Rate in Kakheti:

➤ in 1999 was 46% lower in Middle SES (1.63) than in Low SES (3.02).

➤ in 2005 was 25% lower in Middle SES (1.40) than in Low SES (1.86), and increased by 79% in High SES (2.50).

**Caution: the rate in High SES has too low a sample size to be stable.

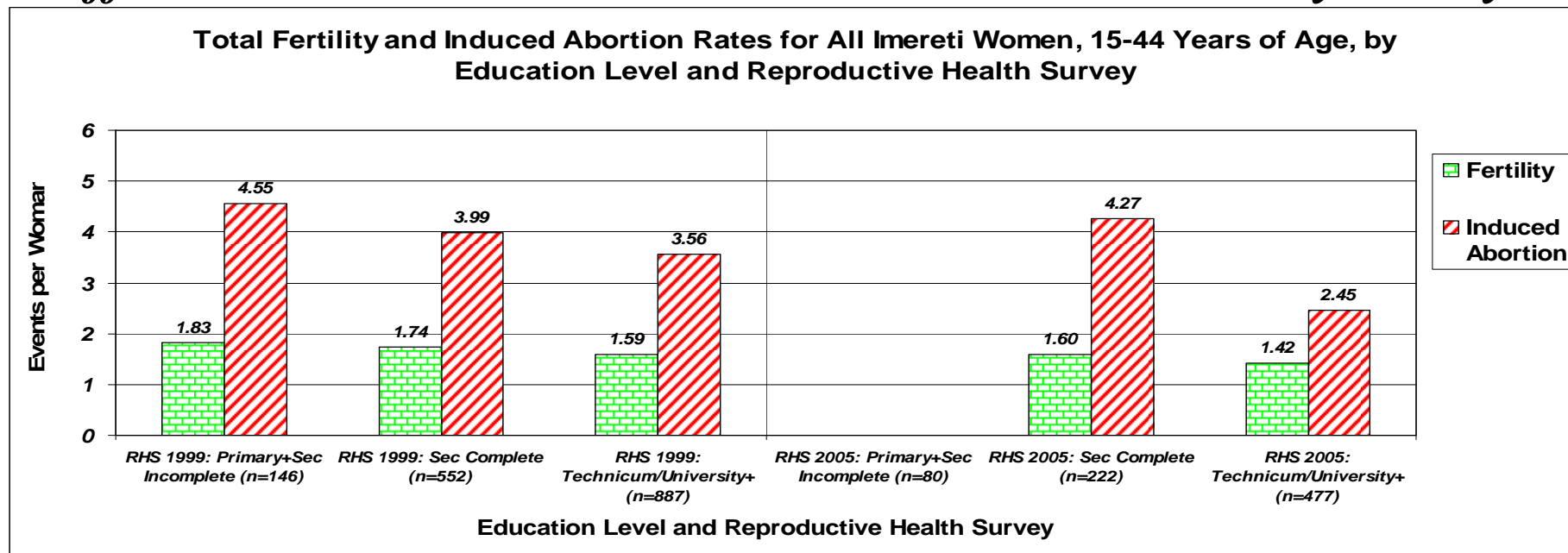
Total Induced Abortion Rate in Kakheti:

➤ in 1999 was 27% higher in Middle SES (4.96) than in Low SES (3.92).

➤ in 2005 was 27% higher in Middle SES (4.16) than in Low SES (3.27), and decreased by 10% in High SES (3.73).

**Caution: the rate in High SES has too low a sample size to be stable.

Differences in Education Level in Imereti: Total Rates by Survey



Total Fertility Rate in Imereti:

➤ in 1999 remained fairly consistent across Education Levels. Only small differences were observed: 5% decrease from Primary Level (1.83) to Complete Secondary Level (1.74) and a 9% decrease to University Level (1.59).

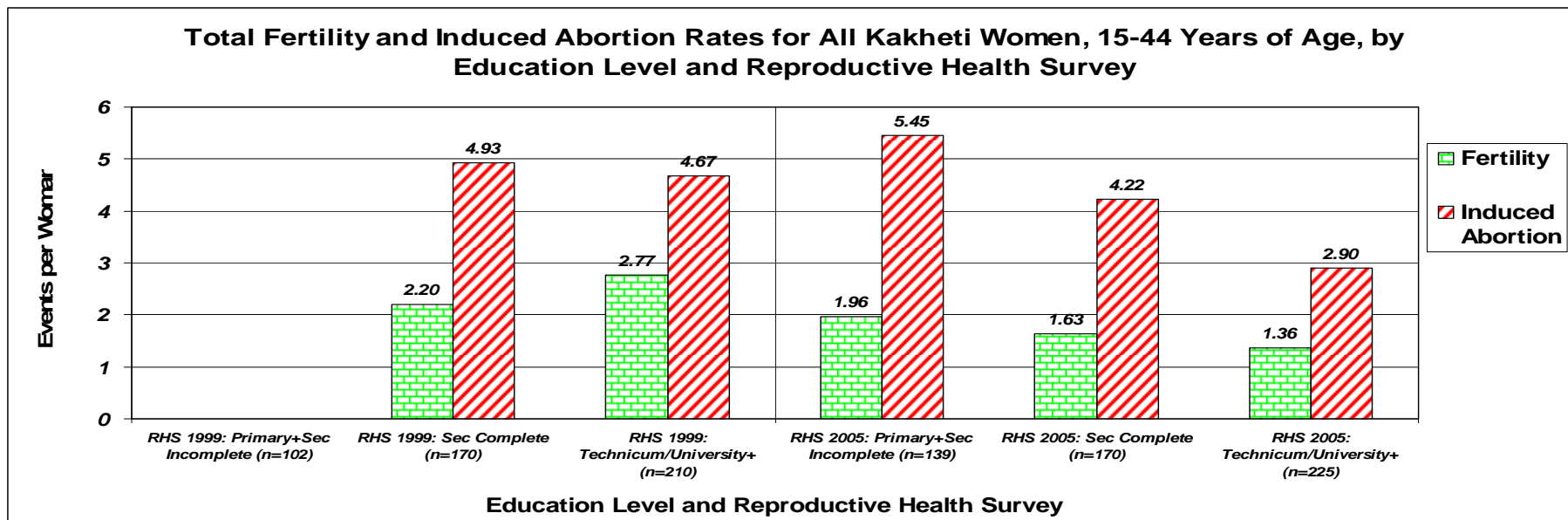
➤ in 2005 was 11% lower at University Level (1.42) than at Complete Secondary Level (1.60).

Total Induced Abortion Rate in Imereti:

➤ in 1999 decreased as Education Levels increased: the rate at Complete Secondary Level (3.99) was 12% lower than at Primary Level (4.55), and the rate at University Level (3.56) was 11% lower than at Complete Secondary Level (3.99).

➤ in 2005 was 43% lower at University Level (2.45) than at Complete Secondary Level (4.27).

Differences in Education Level in Kakheti: Total Rates by Survey



Total Fertility Rate in Kakheti:

➤ in 1999 was 26% higher at the University Level (2.77) than at the Complete Secondary Level (2.20).

➤ in 2005 decreased as Education Levels increased: the rate at Complete Secondary Level (1.63) was 17% lower than at Primary Level (1.96), and the rate at University Level (1.36) was 17% lower than at Complete Secondary Level (1.63).

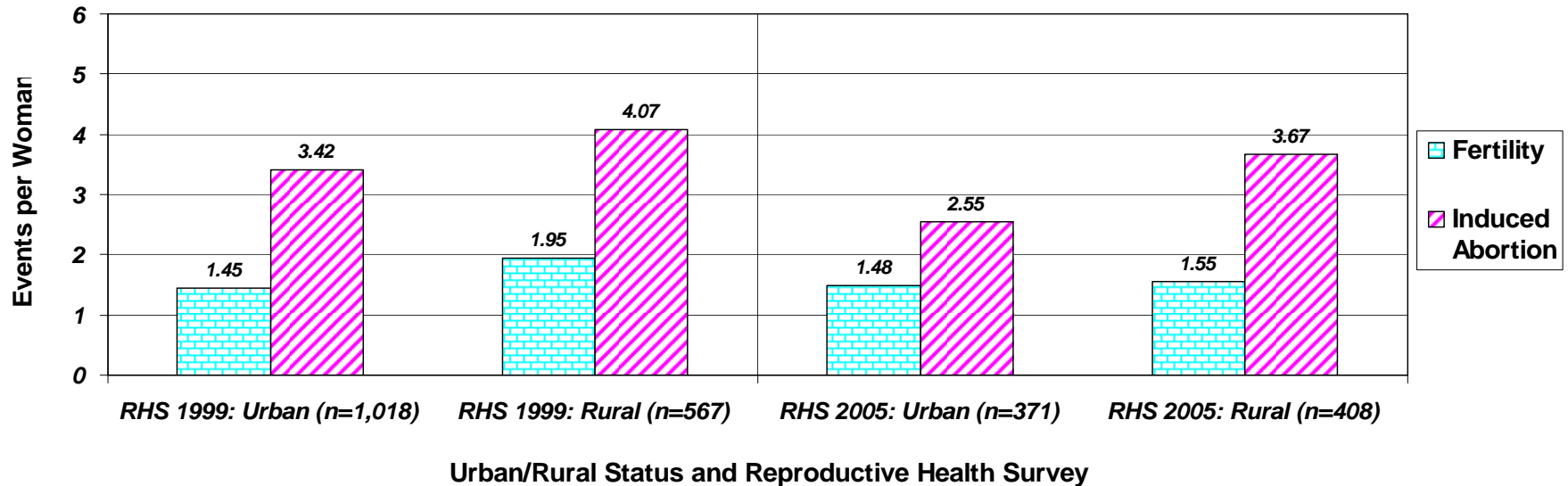
Total Induced Abortion Rate in Kakheti:

➤ in 1999 decreased only 5% from Complete Secondary Level (4.93) to University Level (4.67).

➤ in 2005 decreased as Education Levels increased: the rate at Complete Secondary Level (4.22) was 23% lower than at Primary Level (5.45), and the rate at University Level (2.90) was 31% lower than at Complete Secondary Level (2.90).

Urban/Rural Differences in Imereti: Total Rates by Survey

Total Fertility and Induced Abortion Rates for All Imereti Women, 15-44 Years of Age, by Urban/Rural Status and Reproductive Health Survey



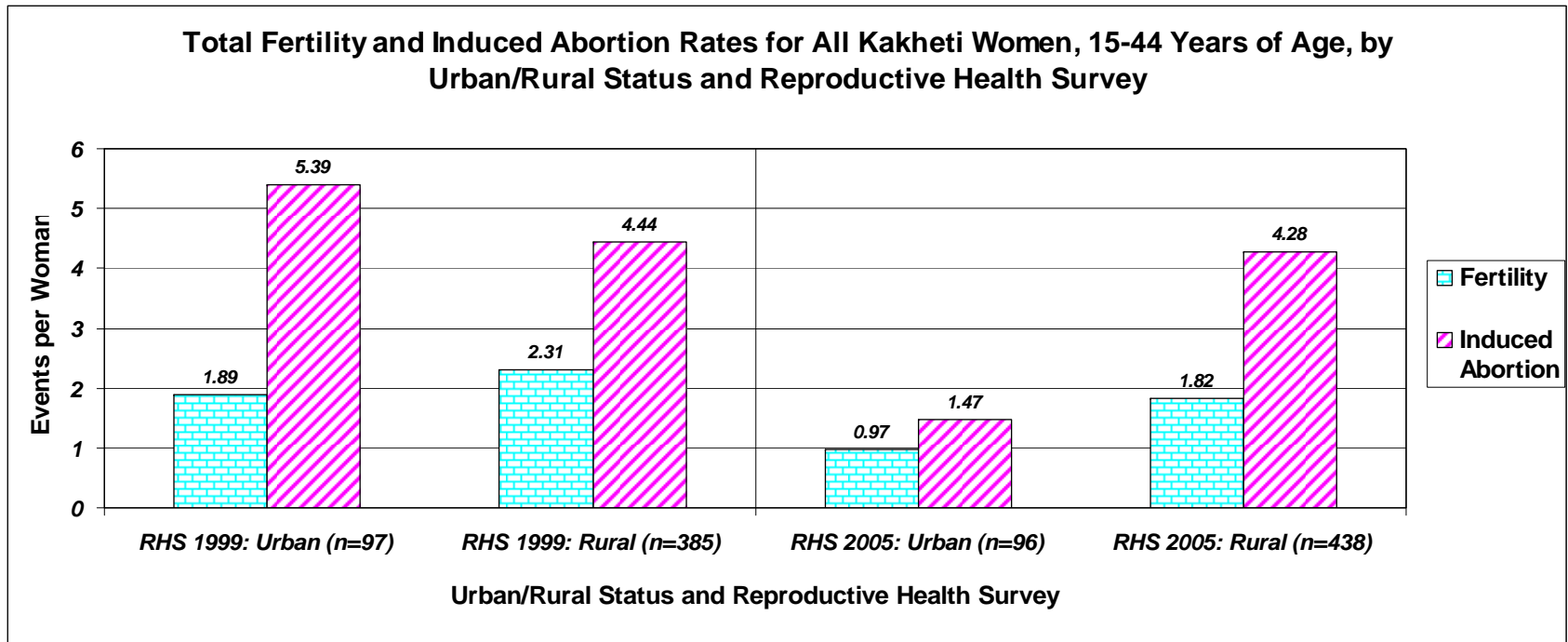
Total Fertility Rate in Imereti:

- in 1999 was 34% higher in rural areas (1.95) than in urban areas (1.45).
- in 2005 was only 5% higher in rural areas (1.55) than in urban areas (1.48).

Total Induced Abortion Rate in Imereti:

- in 1999 was 19% higher in rural areas (4.07) than in urban areas (3.42).
- in 2005 was 44% higher in rural areas (3.67) than in urban areas (2.55).

Urban/Rural Differences in Kakheti: Total Rates by Survey



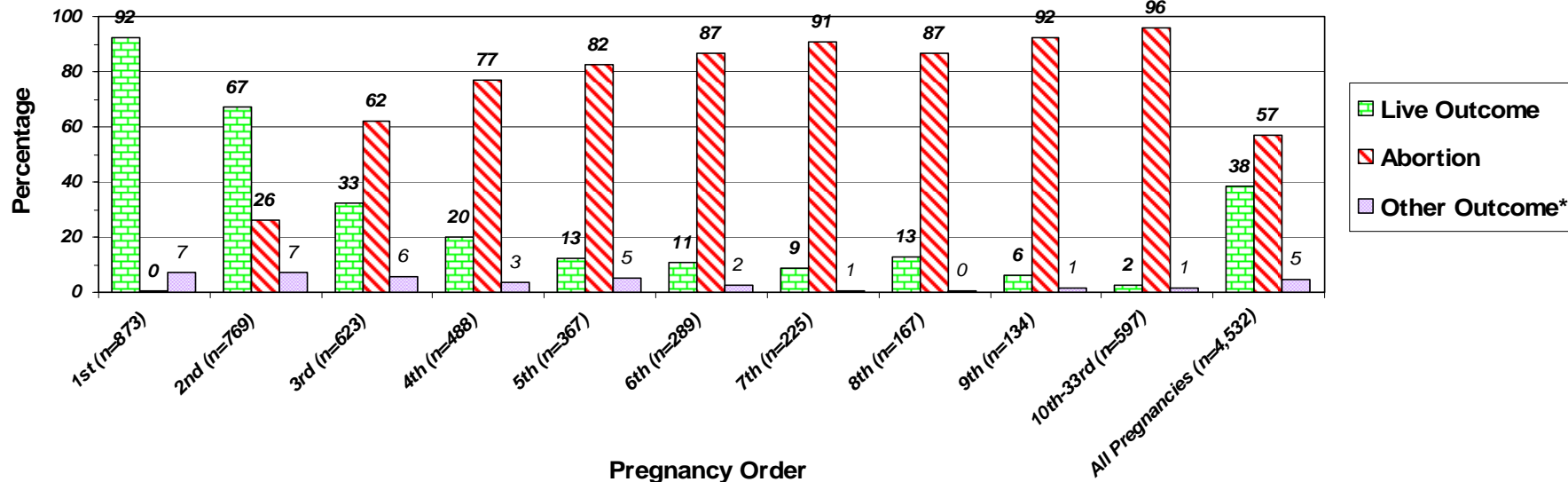
Total Fertility Rate in Kakheti:

- in 1999 was 22% higher in rural areas (2.31) than in urban areas (1.89).
- in 2005 was 88% higher in rural areas (1.82) than in urban areas (0.97).

Total Induced Abortion Rate in Kakheti:

- in 1999 was 21% higher in urban areas (5.39) than in rural areas (4.44).
- in 2005 was 2.9 times as high in rural areas (4.28) than in urban areas (1.47).

**Percentage Distribution of Pregnancy Outcome by Pregnancy Order for All Women
Participants from Imereti and Kakheti in the Georgian Reproductive Health Survey of 2005**



*Stillbirth, Spontaneous Abortion, or Ectopic Pregnancy

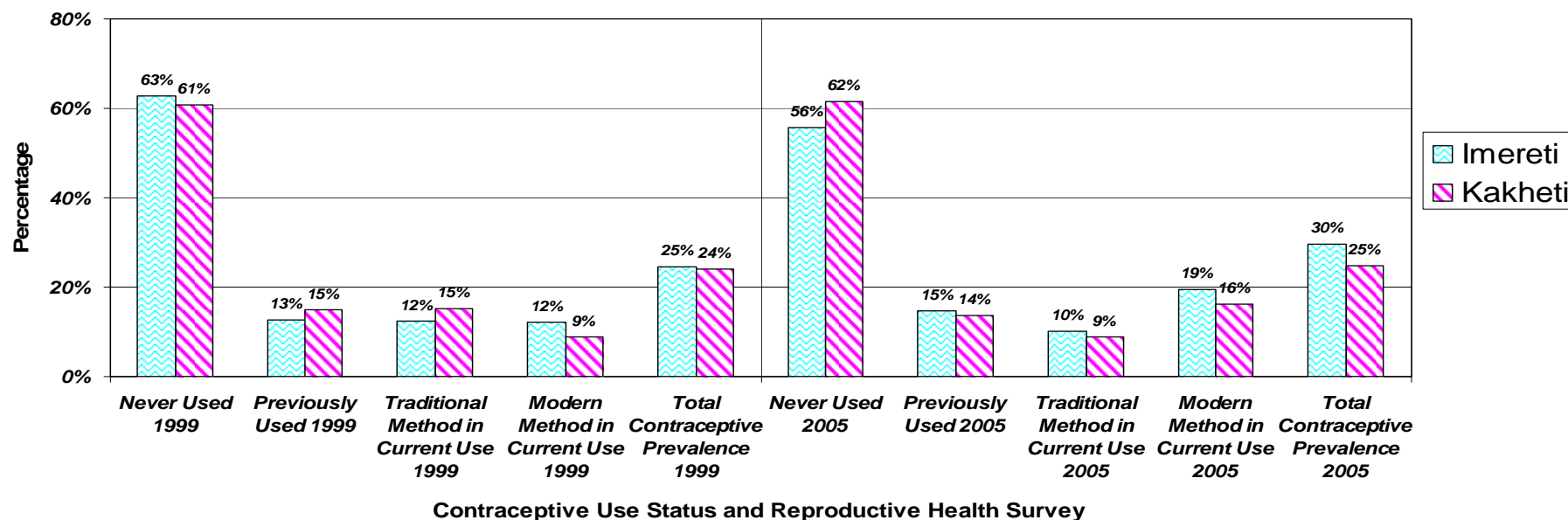
Discussion:

- Since the percentage distribution of pregnancy outcome by pregnancy order was very similar in both regions and for both surveys, the data for the two regions in RHS 2005 were combined to display in the chart above.
- 66% of married women wanted only 1 or 2 children when they first got married (*Imereti: 69%, Kakheti: 61%*).
- First Pregnancies: 99% were intended and only 1% ended in an induced abortion. 40% occurred to women below the age of 20 years (*Imereti: 36%, Kakheti: 46%*).

Discussion, continued:

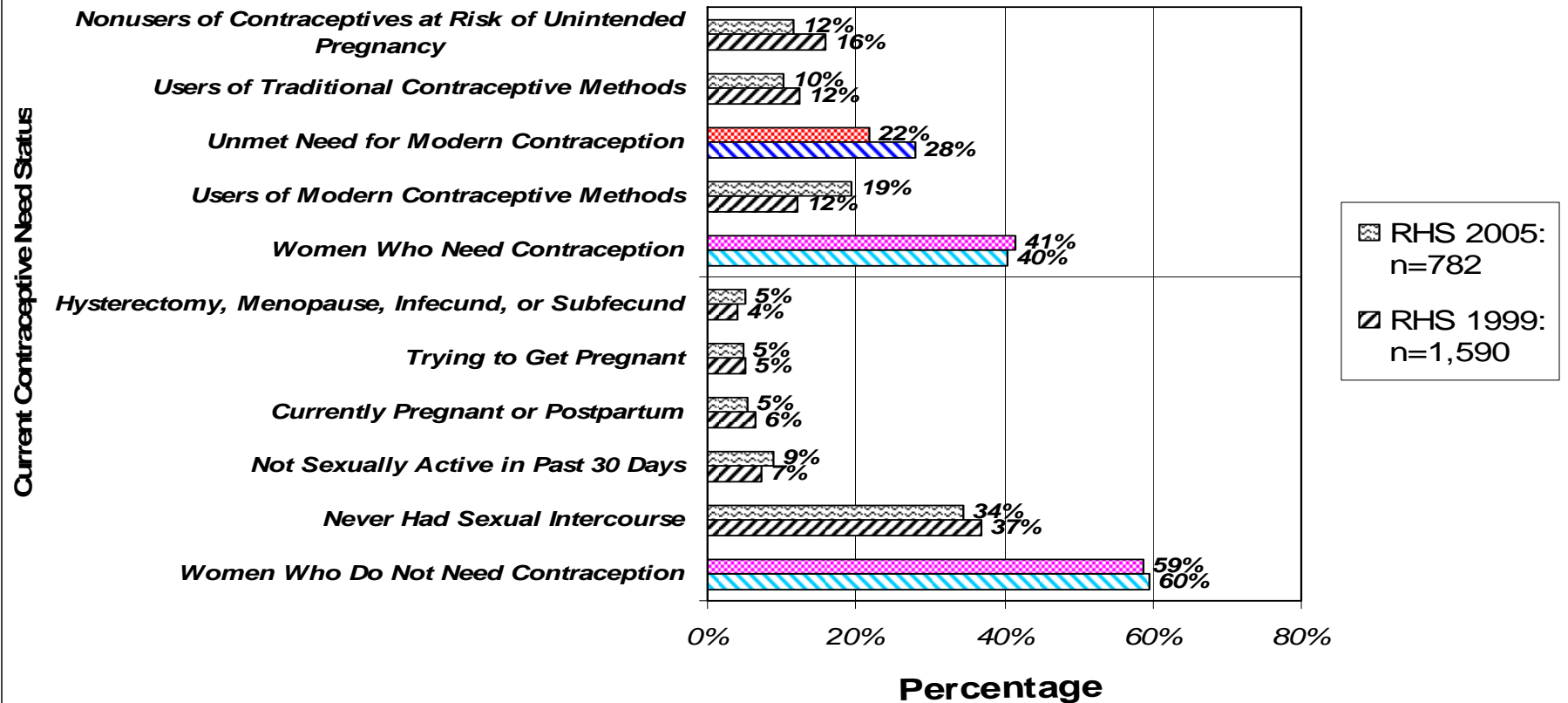
- **Second Pregnancies:** 65% were intended, 31% were mistimed, 5% were not wanted. Thus, 67% resulted in a live birth and 26% in an induced abortion.
- **Third Pregnancies:** 33% were intended, 26% were mistimed, and 41% were not wanted. Consequently, the results reverse. Only 33% resulted in a live birth and 62% in an induced abortion. The percentage of induced abortions was almost double that of live births.
- **Fourth Pregnancies:** 28% were intended, 21% were mistimed, and 51% were not wanted. Thus, only 20% resulted in a live birth and 77% in induced abortions.
- **Subsequent Pregnancies:** The percentage of induced abortions continued to rise with each successive pregnancy. 96% of pregnancy outcomes for the 10th-33rd pregnancies resulted in induced abortions.
- **Over All Pregnancies:** 38% resulted in live births, 57% resulted in induced abortions, and 5% resulted in stillbirths, spontaneous abortions, or ectopic pregnancies.
- **Reasons Given For Last Abortion:** 59% reported they wanted no more children (*Imereti: 60%, Kakheti: 58%*); 20% reported they wanted more children, but at a later time (*Imereti: 23%, Kakheti: 15%*); and 18% reported socio-economic reasons (*Imereti: 13%, Kakheti: 27%*).

Percentage Distribution of the Contraceptive Use Status of All Women, 15-44 Years of Age, from Imereti and Kakheti by Reproductive Health Survey



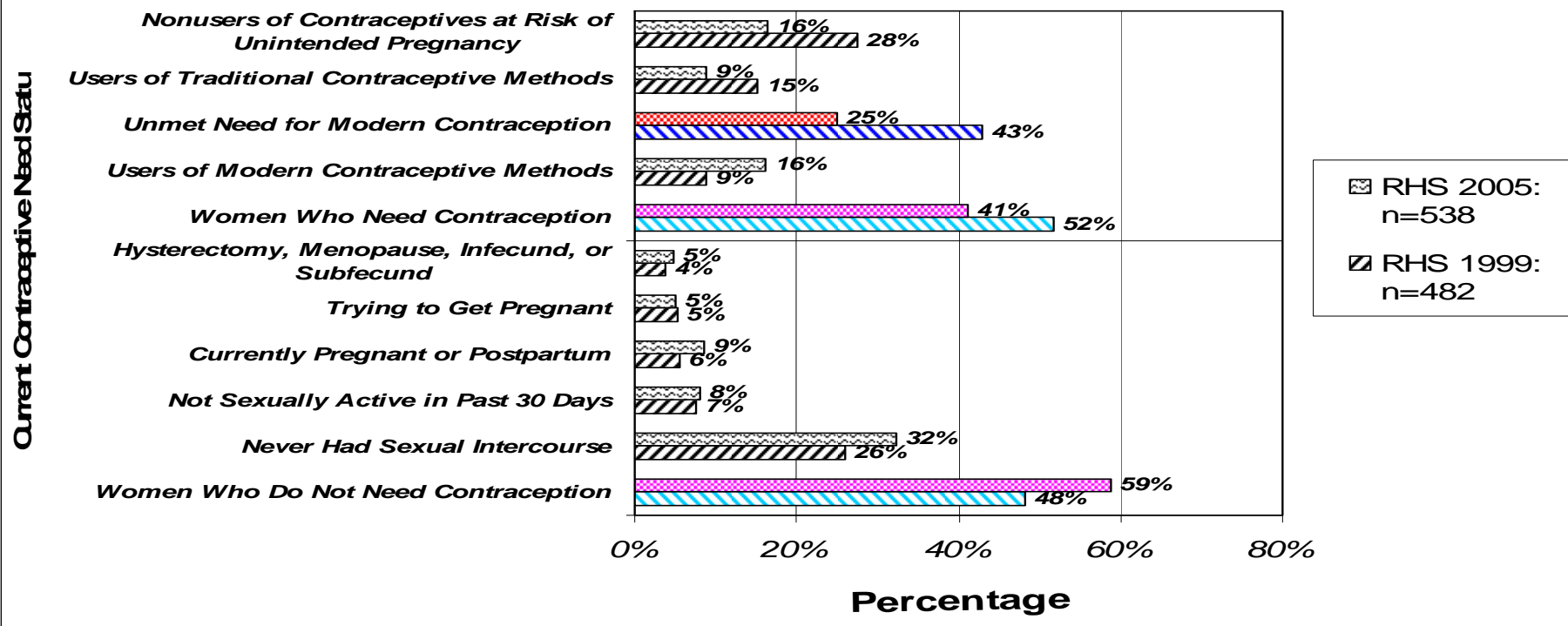
Discussion: In 1999, total contraceptive prevalence was similar in Imereti (25%) and in Kakheti (24%). By 2005, total contraceptive prevalence increased 5% in Imereti to 30%, but had little change in Kakheti (25%). In 1999, both modern (12%) and traditional methods (12%) were equally used in Imereti, but in Kakheti traditional methods (15%) were more commonly used than modern methods (9%). By 2005, use of modern contraceptives increased by 7% in both Imereti (to 19%) and Kakheti (to 16%). In 2005, while use of traditional methods declined slightly in Imereti (12% to 10%), their use declined even more in Kakheti (15% to 9%).

Percentage Distribution of All Women, 15-44 Years of Age, from Imereti by Current Contraceptive Need Status and Reproductive Health Survey



Discussion: The percentages of women who currently need contraception remained steady between surveys (40% in 1999 and 41% in 2005). However, because of the 7% increase in users of modern contraception between surveys, the unmet need for modern contraception declined 6% (from 28% to 22%).

Percentage Distribution of All Women, 15-44 Years of Age, from Kakheti by Current Contraceptive Need Status and Reproductive Health Survey



Discussion: The percentages of women who currently need contraception declined 11% between surveys (from 52% in 1999 to 41% in 2005), partly due to a slight increase (3%) in the percentage of women who are currently pregnant or postpartum (from 6% to 9%) and partly due to a 6% increase in women who have never had sexual intercourse (from 26% to 32%). Also, because of the 7% increase in users of modern contraception between surveys, the unmet need for modern contraception declined 18% (from 43% to 25%).

Conclusions

- **Despite the modest decreases in age-specific and total induced abortion rates between the Reproductive Health Surveys of 1999 and 2005 in Georgia, *induced abortion remains the predominant method of family planning in the newly independent Republic of Georgia, a legacy which the Georgians inherited from Soviet medicine.***
- **Premarital first sexual intercourse among young women, 15-24 years of age, increased modestly between surveys (Imereti: from 2% to 13%, Kakheti: from 0% to 11%), but the use of contraception during first sexual intercourse was only 1%. In 2005, of the young women who engaged in premarital first sexual intercourse without using contraception, 58% in Imereti and 75% in Kakheti reported that they didn't use contraception because they wanted to get pregnant. Societal and religious norms against unwed pregnancy pressure Georgian women into early marriage. In 2005, 21% of young Imereti women and 32% of young Kakheti women were married before they were 20 years old. *Young women, therefore, are at increased risk for unwanted pregnancies and induced abortions.***
- **Other groups at *increased risk for induced abortions are those with lower socio-economic status, lower education, and rural residence, as well as those who have completed their families with 2 living children.***

Acknowledgment: I wish to thank JSI and USAID for giving me the opportunity to become involved with the Healthy Women in Georgia Program.





GEORGIA

ARMENIA

AZERBAIJDAN

Ossetia

Mt. *Mkinvartsveri*
(*Kazbek*)
16,558 ft.
5,047 m.

Aragats
13,418 ft.
4,090 m.

Bazardüzi
14,698 ft.
4,480 m.

Boundary of former South Ossetian Autonomous Oblast (status undetermined)

Boundary of former Nagorno-Karabakh Autonomous Oblast

indefinite

İmişli