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# World Tuberculosis Day—March 24

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Each year, World Tuberculosis (TB) Day is recognized on March 24th. This annual event commemorates the date Robert Koch announced his discovery of the bacillus that causes TB. Around the world, TB programs, non-governmental organizations, and others take advantage of the increased interest and awareness that World TB Day generates concerning the international health threat that the disease presents. It is a day to recognize the collaborative efforts of all countries involved in fighting TB. TB can be cured, controlled, and with diligent efforts and sufficient resources, eventually eliminated.

Since 1993, TB case rates have been declining, suggesting that the nation is recovering from a resurgence of TB that occurred in the mid-1980's, and is back on track toward TB elimination. While the decrease in TB case rates is encouraging, the following areas still require expanded efforts:

- TB continues to kill more people in the world each year than any other infectious disease.
- TB cases continue to be reported in every state.
- Drug-resistant TB cases continue to be reported in almost every state.
- An estimated 10 to 15 million persons in the U.S. are infected with *Mycobacterium tuberculosis.* Without intervention, about 10% of these persons will develop TB disease at some point in life.

**History of World TB Day**

In the late 19th century, TB killed one out of every seven people living in the U.S. and Europe. Dr. Robert Koch's announcement of discovering the TB bacillus in 1882 was the most important step taken towards the control and elimination of this deadly disease. In 1982, a century after Dr. Koch's announcement, the first World TB Day was sponsored by the World Health Organization (WHO) and the International Union Against Tuberculosis and Lung Disease (IUATLD).

**Where Are We Now?**

TB remains a health threat to people around the world. Among infectious diseases, TB remains the second leading killer of adults in the world, with more than 2 million TB-related deaths each year. Until TB is controlled, World TB Day won't be a celebration, but it is a valuable opportunity to educate the public about the devastation that TB can spread and how it can be stopped.

**TB in Kentucky**

Kentucky has reached an all time low for 2004. There were 127 TB cases reported for a statewide case rate of 3.1 cases per 100,000 population. This rate places Kentucky well below the national TB case rate of 5.1 cases per 100,000 population, and below the state objective of reducing the verified TB case rate to 3.5 per 100,000 population. In 2003, the Kentucky TB Control Program reported 138 cases compared to 146 reported cases in 2002. The TB Program plans to reach additional goals by achieving the following objectives:

- Completion of therapy for cases, and identification, evaluation, and treatment of contacts
- TB surveillance
- Testing and reporting of specimens in the TB public health laboratory
- Education and referral of patients for HIV testing; education and training for health care providers
- Active identifying of high TB risk populations.

# Population-Based Surveillance of Intimate Partner Violence Against Kentucky Women: A Comparison of State and National Definitions and Findings

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Intimate partner violence (IPV) is a serious sociocultural, legal and public health problem in Kentucky (Schulman 1979; Fritsch et al. 2004a, b) and across the nation (Koop 1985; Flitcraft et al. 1992; Goldman et al. 1995; Tjaden and Thoennes 2000). IPV is collectively defined by its component acts that may occur in isolation, but most frequently coexist with other forms of IPV, even in a single abusive episode (Saltzman et al. 1999). The earliest population-based study of spousal violence in a state (Kentucky) found that 1 out of 5 (21.0%) women reported lifetime physical violence by a spouse, although this early study used a very restricted IPV definition (Schulman 1979). More recent population-based studies in the United States generally find that 1 out of 4 (25.5%) women report lifetime IPV prevalence (Tjaden and Thoennes 2000).

Current IPV surveillance initiatives by the Centers for Disease Control and Prevention (CDC) and the National Center for Injury Prevention and Control (NCIPC) strive to standardize and stabilize IPV surveillance nationally (Saltzman et al. 1999, rev. 2002). This study intends: 1) to establish a state's current baseline, population-based surveillance of IPV; 2) to compare the state and national definitions and findings using the CDC's uniform definitions and recommended data elements (Saltzman et al. 1999) *and the National Violence Against Women Survey* (NVAW Survey) (Tjaden and Thoennes 2000); and 3) to compare state expected, 12-month IPV population projections with observed IPV cases as reported by Kentucky's Adult Protective Services (APS).

## Methods

The state's findings relied on a telephone survey (2002-2003) of a simple random sample of 4,059 adult Kentucky women (ages 18 and older) rather than a poll of the total female population; hence, these results are *estimates* of true population proportions. Post-stratification weights were applied (age and education) to more accurately reflect the adult female population of Kentucky, 2000 Census (Table 1). Survey participants were all female; IPV perpetrators were overwhelmingly identified as male (96.7%). The survey response rate was 47%. Percentages are reported at 95% confidence intervals (CI). The state lifetime and 12-month IPV prevalence levels reported here use definitions consistent with national guidelines unless otherwise noted. Details about this study (i.e., definitions, methodology, limitations, and references) are found at www.kiprc.uky.edu.

## Results

Using the current national IPV definition, 1 out of 3 (36.6%) Kentucky women or a population estimate of 579,352 women reported IPV as an adult; 7.1% or about 112,388 women, ages 18-93, experienced IPV in the past 12 months (Tables 1, 2). However, IPV behaviors that are not part of the current national IPV definition were identified by women from the state survey sample. They reported psychological abuse (i.e., repeated demeaning or controlling acts not in the context of physical or sexual IPV) or stalking by an intimate partner where the women were less than very frightened, or both. Inclusion of these acts into an expanded IPV definition produces more complete lifetime (51.3% or 812,043 women) and 12-month IPV prevalence (15.0% or 237,440 women) for the state. Consistent with the acts that comprise the current national definition, women reported that these excluded IPV acts also resulted in physical or mental health con-

Continued on Page 3

sequences, including some women who thought of or attempted self-injury. Therefore, findings based solely on the current national IPV definition do not reflect the true, current nature and prevalence of IPV in Kentucky.

The majority of state IPV victims reported multiple rather than single IPV episodes over 12 months; three-fourths (76.7%) of them experienced psychological stress or physical injuries (74.1%), and more than one-fourth (29.8%) of abused, injured women sought medical treatment or counseling (Fritsch 2004a, b). Based on these figures, a *fraction* of Kentucky's IPV-related burden of injury in terms of estimated medical costs is $2,638,372 at a rate of $21.69 (low) or $43,677,275 at a rate of $369.07 (high) for just *one* physician visit per year based on 1995 dollars (The National Center for Injury Prevention and Control 2003). These costs are *very* low bound estimates given most IPV victims report multiple episodes over 12 months, and other more expensive medical costs such as emergency department visits and 10 years of inflation are not included. Further, if the IPV prevalence from the recommended IPV definition is used in these calculations, the state's personal and economic burdens increase greatly.

The state survey data ($n$ = 4,059 adult women) are compared with findings from the NVAW Survey ($n$ = 8,000 adult women) (Table 3, Figure 1). It was hypothesized that the state findings would be lower, despite being collected five years later, because of the state's more restrictive application of the national IPV definition. The results prove otherwise; Kentucky women report IPV levels that significantly exceed national levels–except for sexual IPV, which is higher, but not significantly so.

Kentucky's IPV population projections are compared with observed cases (i.e., females only) as reported to APS for the purpose of offering victims voluntary information and services. This comparison with APS reports, the most comprehensive evidence of the state's observed IPV levels, shows that current law and practices to connect IPV victims with critical county-based APS are reaching only 1 out of 5 (21.3%), or fewer, 1 out of 10 (10.1%) at-risk women, depending on the IPV definition applied (Table 2, Figure 2).

**Conclusions/Recommendations**

The Kentucky IPV prevalence levels indicate that: 1) more women are being significantly affected by IPV and its consequences than existing national data and state observed cases would suggest; and 2) the documentation of other IPV forms reported by women, but not included in the current national IPV definition, is significant. These IPV victims, excluded from the state's IPV prevalence levels in order to be consistent with current national guidelines, should not be confused with women who never experienced IPV. The Commonwealth must continue efforts to reduce this serious public health and safety problem; more completely and accurately report IPV prevalence with its personal and societal costs; and recommend consideration of the expanded IPV definition as the national standard.

**References**

References are available from the authors upon request.

**Acknowledgments/Disclaimers**

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*(Referenced tables and figures continued on Page 4).*

***March Notes & Reports…..***

**TABLE 1. Demographics of abused women, survey sample, and women statewide** (a)

| Selected Demographics | 12-Month IPV(b) *n* = 289 | Lifetime IPV (b) *n* = 1,485 | Total Sample IPV + Non-IPV *n* = 4,059 | Kentucky Women *n* = 1,582,930(b) |
|---|---|---|---|---|
| **Ages** | | | | |
| 18-24 | 34.1% | 11.4% | 6.4% | 12.5% |
| 25-34 | 29.5% | 22.9% | 15.7% | 17.9% |
| 35-44 | 23.1% | 26.1% | 21.0% | 20.5% |
| 45-54 | 9.4% | 19.8% | 24.5% | 17.9% |
| 55-64 | 1.7% | 11.5% | 16.2% | 12.2% |
| 65+ | 2.2% | 8.1% | 16.3% | 19.0% |
| **Race/Ethnicity** | | | | |
| White | 88.1% | 92.5% | 93.4% | 90.5% |
| Black | 8.7% | 5.2% | 5.1% | 6.8% |
| Other | 2.7% | 1.9% | 1.3% | 1.7% |
| Hispanic/Latina | 2.4% | 1.6% | 1.3% | 1.0% |
| **Marital Status** | | | | |
| Married | 35.5% | 49.6% | 65.3% | 55.5% |
| Separated | 10.7% | 4.5% | 2.1% | 2.1% |
| Divorced | 23.0% | 24.1% | 12.9% | 11.5% |
| Widowed | 0.4% | 6.8% | 9.7% | 11.7% |
| Never married | 30.5% | 15.0% | 10.0% | 19.2% |
| **Education** | | | | |
| < High school | 24.8% | 22.8% | 13.3% | 24.5% |
| High school | 37.4% | 34.5% | 35.8% | 33.3% |
| Some college | 30.0% | 30.2% | 26.7% | 26.9% |
| BS degree | 4.7% | 7.8% | 13.9% | 7.1% |
| Graduate degree | 3.1% | 4.8% | 10.2% | 5.1% |
| **Employment** | | | | |
| Employed | 63.5% | 60.2% | 58.5% | 54.4% |
| Retired | 2.9% | 13.3% | 21.9% | Unavailable |
| Unemployed | 33.7% | 26.4% | 19.6% | 3.2% |
| **Household Income** | | | | |
| < $10,000 | 26.8% | 17.0% | 10.3% | 13.7% |
| $10,000-$24,999 | 27.5% | 26.2% | 20.0% | 23.8% |
| $25,000-$49,999 | 24.5% | 31.5% | 31.7% | 30.3% |
| $50,000+ | 21.3% | 25.2% | 33.3% | 30.9% |

(a) US Census, 2000: Selected demographic data for adult Kentucky women. (b) As reported by women at the time of the survey; not their status at the time of the last IPV episode. These data were weighted for age and education.

**TABLE 2. Kentucky IPV prevalence and population projections** (a)

| Type of Violence and Abuse | Lifetime IPV Prevalence (95% CI) | Lifetime IPV Population Projections | 12-month IPV Prevalence (95% CI) | 12-month IPV Population Projections |
|---|---|---|---|---|
| **National IPV definition** | **36.6% (35.1, 38.1)** | **579,352 (555,608 – 603,096)** | **7.1% (6.3, 7.9)** | **112,388 (99,725 – 125,051)** |
| Recommended IPV Definition | 51.3% (49.8, 52.9) | 812,043 (788,299 – 837,370) | 15.0% (13.9, 16.1) | 237,440 (220,027 – 254,852) |

(a) Based on the 2000 Census for adult women in Kentucky (*n* = 1,582,930 women).

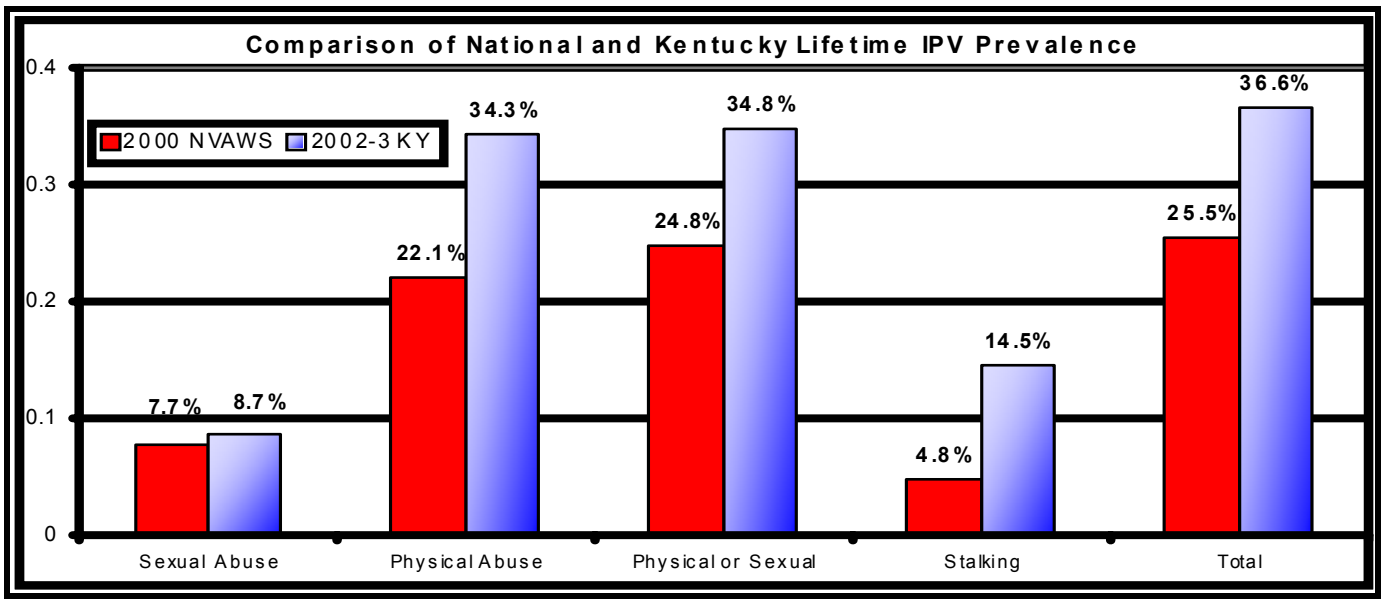
*Continued on Page 5*

**TABLE 3. Comparison of state and national IPV prevalence findings** (a)

| Type of IPV Violence and Abuse | Lifetime IPV Prevalence | | | 12-Month IPV Prevalence | | |
|---|---|---|---|---|---|---|
| | NVAWS *n* = 8,000 | KY IPVS *n* = 4,059 | Ratio | NVAWS *n* = 8,000 | KY IPVS *n* = 4,059 | Ratio |
| Physical | 22.1% | 34.3% | 1.6 | 1.3% | 5.2% | 4.0 |
| Sexual (a) | 7.7% | 8.7% | 1.1 | 0.2% | 0.7% | 3.5 |
| Physical or Sexual | 24.8% | 34.8% | 1.4 | 1.5% | 5.3% | 3.5 |
| Stalking, Very Frightened | 4.8% | 14.5% | 3.0 | 0.5% | 2.8% | 5.6 |
| **IPV (National definition)** | **25.5%** | **36.6%** | **1.4** | **1.8%** | **7.0%** | **3.9** |

(a) The lifetime and 12-month IPV prevalence for Kentucky women are significantly higher than NVAW Survey findings, except for sexual IPV, which is higher but not significant.

FIGURE 1. Comparison of lifetime IPV prevalence: NVAW Survey, Kentucky IPV Survey




**Kentucky women continue to be at risk for IPV at levels that exceed national statistics.**

Source: National Violence Against Women Survey (NVAWS), 2000

*Continued on Page 6*

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FIGURE 2. Kentucky's 12-Month projected v. reported IPV: National definition v. recommended definition