Abstract
The purpose of this study was to examine the characteristics of nurses enrolled in the Indiana State Nurses Assistance Program (ISNAP) and to identify the top five areas where they practice. The sample consisted of 552 subjects who are currently in or have completed the ISNAP program. Known practice areas (n = 336) with the highest numbers of nurses in ISNAP were geriatrics (n = 142, 42.3%), medical-surgical (n = 71, 21.1%), emergency (n = 50, 14.9%), home care (n = 37, 11%), and critical care (n=36, 11%). An investigation into these risk areas showed that opiates and alcohol were the most frequently abused drugs in each of these practice areas. Across all practice areas the nurses were predominantly female, had a mean age of 40 years old, did not divert drugs, worked full-time in a hospital as Registered Nurses (RNs), and worked in an urban area. There were similar frequencies of employer and self-referrals to the treatment program. Differences were predominantly seen in geriatrics, where relatively more nurses were Licensed Practical Nurses (LPNs), worked in a nursing home, with equal representation in urban and rural practice sites. Findings suggest that there is a need for further monitoring in a system where nurses are practicing more autonomously and caring for vulnerable patients. Findings also indicate more education related to addictions and treatment is needed at the individual and institutional level.

Introduction/Review of Literature
The problem of licensed health care professionals who use and abuse illegal or prescription drugs and alcohol is pervasive and widespread. This is evidenced by the fact that most of the 50 states currently operate peer assistance programs that provide monitoring, supervision, and direction to registered and licensed practical nurses who are substance dependent or abusers. According to the American Nurses Association, 6 to 8% have a problem serious enough to interfere with their ability to practice (Talbert, 2009), and approximately 10% have some level of drug or alcohol problem (Blazer & Mansfield, 1995). Shaw et al. (2004) found nurses live and work in environments with intense and ubiquitous triggers to relapse. Characteristics of high-
risk practice factors specific to nurses include working variable shifts, long hours, high-stress patient care, pain associated with injuries, and access to medications. Past research found that nurses were more likely to use substances when workplace access to substances increased \((p < 0.001)\), when their social networks contained more drug users, and when religiosity decreased \((p < 0.001)\) (Trinkoff, Zhou, Storr, & Soeken, 2000). Other researchers have looked at characteristics of dependent nurses and found a majority of chemically dependent nurses were Caucasian and worked in major cities. The mean age of substance-abusing nurses was 38.8 years, they had been practicing on average for 9.5 years, and most were referred to a treatment program when they were about 40 years old (Clark & Farnworth, 2006; Finke, Williams, & Stanley, 1996). Clark and Farnsworth (2006) found no difference in age or gender between those who were successful and those who were unsuccessful in a peer assistance program, and they were unable to explain the reason why some nurses were successful and others failed. Tipton (2005) found in peer assistance programs for impaired nurse there were 103 participants who worked in an inpatient acute care setting with the predominant practice areas being medical-surgical, critical care, maternal-child, and emergency room.

The Indiana State Nurses Assistance Program (ISNAP) is a program funded by nurses’ licensure fees collected by the Indiana State Board of Nursing offering consultation, referral, and monitoring for nurses whose practice is impaired or potentially impaired, because of the use, abuse, or dependency relative to alcohol or other drugs. As of January 1, 2010, ISNAP had 589 nurses enrolled in the program out of the 115,526 nurses licensed in Indiana (.05%). The present study focused on the characteristics of nurses who have recently participated in ISNAP, their experience with their treatment process, and the characteristics of those who successfully completed the program as compared to those who relapsed or failed the program. Our assumption was that recognition of these characteristics might aide in early detection and intervention.

Methods
A secondary analysis of data from the ISNAP database was conducted using statistical software SPSS 16.0 for Windows. Complete data were available for 552 subjects and were used for this study. Data were analyzed using descriptive statistics.

Results
Findings show that practice areas with the highest frequencies of nurses were geriatrics \((n = 142, 42.3\)\), medical-surgical \((n = 71, 21.1\)\%), emergency \((n = 50, 14.9\)\%), home care \((n = 37, 11\)\%), and critical care \((n = 36, 11\)\%). The subjects were predominantly female \((88.7\)\%), had mean age of 41 years old, worked full time in a hospital, were Registered Nurses (RNs), did not divert drugs from their patients, and worked in an urban area. The Indiana Bureau of Labor Statistics reported the proportion of registered female nurses was 94.4% at the end of 2005 and 91.7% at the end of 2008, thus our sample reflects state trends. Table 1 indicates the frequency of female and male nurses in each high-risk practice area. There were similar frequencies of employer and self-referrals to the treatment program. Few differences were seen among sites, except for geriatrics. In the geriatric setting, relatively more nurses were Licensed Practical Nurses (LPNs) working in nursing homes. There was more equal
representation in urban and rural practice sites than in the other practice areas. Figure 1 indicates how many RNs and LPNs work in each of the high-risk practice areas. In all five areas, opiates and alcohol were the most frequently stated drugs of choice. Marijuana, cocaine, amphetamines, and methamphetamines were also reported as used by only a few nurses in the study.

**Conclusion**
Results indicate that the high-risk practice areas in Indiana are similar to those on the national level. Areas where nurses work more autonomously and have greater access to controlled substances appear to be where impaired nurses are working. Opiates and alcohol were the two primary drugs of choice for nurses in this sample. Data about diversion was not included in this study, so more information is needed to determine if opiates were obtained this way, and if so, the mechanisms in place at institutions that safeguard against this problem. The study was limited by missing data and the variables available for analysis. Based on the literature review, future studies should include variables such as social networks, family history, co-morbidity, spirituality, treatment modalities, stress, and information related to relapse. Substantial data related to these factors is contained in client files and not in the current database. Thus, future research efforts should include a chart review of the clients who have completed or are currently enrolled in the program and expansion of the database. Also, more research could include differentiating between associate-prepared RNs and baccalaureate-prepared RNs. All findings will be disseminated to ISNAP and the Indiana State Board of Nursing.

**Implications for Practice**
Knowing the high-risk areas and frequently used drugs will allow us to identify nurses who may be at risk for substance use disorders. Interventions would focus on education surrounding the science of addictions, recognition of signs and symptoms of substance use and abuse, and creating environments conducive to recovery and retention. Findings indicate that nurses at all levels of educational preparation, ranging from LPNs to advanced practice nurses, are at risk for chemical dependency. Therefore, all nurses should be included in education programs related to addictions. This should include higher level nurse managers and administrators to promote treatment to the affected nurses.
References
Table 1 Females and Males for Each High-Risk Practice Area: In each of the high-risk areas, the number of females in the ISNAP program was significantly greater than the number of males.

<table>
<thead>
<tr>
<th></th>
<th>Geriatrics</th>
<th>Medical-Surgical</th>
<th>Emergency Department</th>
<th>Home/Public Health</th>
<th>Critical Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>n=121</td>
<td>n=63</td>
<td>n=43</td>
<td>n=30</td>
<td>n=25</td>
</tr>
<tr>
<td></td>
<td>(85.2%)</td>
<td>(88.7%)</td>
<td>(86%)</td>
<td>(81.1%)</td>
<td>(71.4%)</td>
</tr>
<tr>
<td>Male</td>
<td>n=21</td>
<td>n=8</td>
<td>n=7</td>
<td>n=7</td>
<td>n=10*</td>
</tr>
<tr>
<td></td>
<td>(14.8%)</td>
<td>(11.3%)</td>
<td>(14%)</td>
<td>(18.9%)</td>
<td>(28.6%)</td>
</tr>
</tbody>
</table>

*One participant did not disclose gender

Figure 1 Highest Degree in Top 5 High Risk Areas: The highest risk area was geriatrics. This was followed by medical-surgical, emergency, home and public health, and critical care.