Objective
The purpose of this review is to determine if the utilization of addiction and mental health services changes during times of economic downturn.

Background
Recent decline in oil prices have resulted in increased unemployment in Alberta. We hypothesized that increased unemployment results in increased addiction and mental health service utilization. Our hypothesis is based on the assumption that those who become unemployed face increased stress and would therefore seek professional support. A review of the literature is important to inform policy and planning, especially during times of fiscal restraint and reduced government spending. Having knowledge of the demand for health services can help inform how health funding is allocated.

Methods
We performed two searches to identify relevant literature. The first search used Medline and PsychINFO databases. Search terms included: recession, economic crisis, downturn, mental health services, drug rehabilitation, and community mental health services. To validate and augment this search, we then performed a secondary search of both academic and grey sources of literature. For the secondary search we used the PsychINFO database, Google, and Google Scholar. Our search terms were: service utilization, medical services, financial crisis, economic downturn, recession, budget crisis, and addiction and mental health.

Over 120 articles were reviewed; 12 articles were selected for inclusion. All were published from 2000 to 2015 and originated from either the United States or Europe; no relevant Canadian articles were found, which is a limitation of this review. The articles cover the major economic downturns of the early 1980s, the early 1990s, and 2008-09. We chose to focus primarily on the literature pertaining to the 2008-09 downturn.

Findings
Four themes emerged from the literature and the findings are organized accordingly.

Utilization
Some literature from the United States shows that the rates of medical, dental, and mental health service use declines during times of economic downturn (Burgard & Hawkins, 2014). More specifically, the literature shows an overall reduction in physician visits by about 7-8% for females and 25% for males. This reduction may however, be due to the lack of health insurance coverage. Further, gender differences may be attributed to males having less coverage than females (2-8% less) (Chen & Dagher, 2014).

Other literature has reported increasing rates of health services use during times of economic downturn. Notable examples of increased health care utilization from the literature include:

- Use of prescription drugs related to mental health (e.g., antidepressants, psychotropic medications). Females’ use of mental health related prescriptions increased by 11% during times of economic downturn, while males’ use increased by 9%. This trend pertains to both those who became unemployed and those who remained employed, and is based on a sample of 16,482 females and 6,835 males,
all of which were diagnosed with depressive or anxiety disorders (Chen & Dagher, 2014).

- There was an increase in the number of prescriptions filled related to opiates, antidepressants, sleep aids, and anxiolytics, one year after the Great Recession of 2008-09 based on 11,625 employees in 25 of the largest plants in the United States. In addition, the use of both inpatient and outpatient mental health services increased immediately after the economic downturn among those who were employed (Modrek, Hamad & Cullen, 2015).

**Unemployment Effects**

Economic downturns increase the unemployment rate. Unemployment has been found to be associated with increased:

- Suicide rates, especially in the first 5 years following a recession. Although the suicide rates can decrease later, they can remain high for up to 16 years after a recession (Marmot, Bloomer & Goldblatt, 2013).
- Inpatient cost per discharge for both public and private payers by approximately 15%; in the United States, the government funded program, Medicare, tends to be affected more than its private counterparts. Potential reasons for increase may include changes in utilization patterns and resource use or the increased willingness from providers to treat Medicare patients due to providers facing reduced demand for their services (Maeda et al., 2014).
- Mortality due to mental and behavioral disorders, especially among seniors as cited in De Vogli (2014).
- Inpatient admission for seniors: the likelihood of having an inpatient stay increases by 3.2% as unemployment increases by 1% (McInerney & Mellor, 2012).
- Prevalence of psychiatric illnesses causing hospitalization, including depression, anxiety, low self-esteem, alcohol-related disorders, and suicide (Cooper, 2011; Marmot, Bloomer & Goldblatt, 2013; WHO, 2007).
- Chances of becoming ill; specifically those who become unemployed are twice as likely to develop a “limiting illness” and are 60% less likely to recover (Bartley, Sacker, Clarke 2003). The risk of developing mental illness increases as the duration of unemployment increases (WHO, 2007; Marmot, Bloomer & Goldblatt, 2013). This effect appears to be more prominent among males, especially young adult males who have a higher risk of developing mental illness (Modrek et al., 2013; WHO, 2007; Bartley, Sacker & Clarke, 2003).

In general, young adults are especially susceptible to becoming unemployed and can continue to experience its negative outcomes up to 10 years later due to low wages and challenges with future employment (Marmot, Bloomer & Goldblatt, 2013).

**Populations Most at Risk**

Individuals most likely to become unemployed are often those who are least educated (Marmot, Bloomer & Goldblatt, 2013). Although the effects of an economic downturn are felt by the unemployed, other populations are also affected including low income individuals or families, those at risk of poverty before the downturn, young people, single parent families, ethnic minorities, migrants, and children and adolescents (Cooper, 2011; WHO, 2007; Modrek et al., 2013; Marmot, Bloomer & Goldblatt, 2013).

The mental well-being of children and youth can be adversely affected by their parents’ economic and/or marital stress (WHO, 2007). African American youth were found to use

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1 Bartley, Sacker, and Clarke describe a limiting illness as a health condition or disability that limits one’s ability to work.
more psychiatric emergency services than Caucasian youth one month after any decline in the economy, whereas Caucasian youth sought more non-urgent care (Bruckner, Kim & Snowden, 2014).

**Preventive Strategies**
During an economic downturn, most countries tend to experience an increase in suicide rates. In Greece, for example, suicides increased by 17% from 2007 to 2010. In the United Kingdom, there were 846 more suicides among men and 155 more suicides among women from 2008 to 2010 (De Vogli, 2014).

Interestingly, Sweden and some regions in Italy experienced a reduction in suicide rates during the economic downturn (Modrek et al., 2013; De Vogli, 2014). This reduction in suicide rates can be attributed to high levels of investment in social welfare programs and strong social protection mechanisms (De Vogli, 2014). Below are some recommendations that are recognized as strategies to mitigate the effects of an economic downturn:

- Active labor market programs that help the unemployed seek work or in general, offer hope, have been noted as being a protective factor (Cooper, 2011; WHO, 2007) and can significantly reduce suicide rates (Modrek et al., 2013). Active labor market programs have more of an impact on mortality outcomes compared with public healthcare programs (Modrek et al., 2013; Marmot, Bloomer & Goldblatt, 2013).
- Providing community care and support for high risk groups (e.g., increasing access to primary care for those who already have a mental illness), increasing access to mental health care generally, improving efficiency of services, resiliency-building, and psychological support for the unemployed (Modrek et al., 2013; WHO, 2007; Cooper, 2011).
- Reducing the stigma of mental illness (WHO, 2007; Chen & Dagher, 2014).
- Shifting the focus of care to early detection of mental illness (WHO, 2007; Chen & Dagher, 2014).
- Providing family support programs for low income groups as well as women and children (Cooper, 2011; WHO, 2007). The World Health Organization reported that in 2007, European countries that spent $100 U.S. per person on family support reduced the effect of unemployment on suicide rates by 0.2%.

**Conclusion**
Based on the literature, it appears the utilization of addiction and mental health services can vary during times of economic downturn depending on factors such as population cohorts and ability to obtain adequate health insurance. Medical, dental, and mental health service use has been shown to decline in the United States, likely due to a lack of access to insurance (Chen & Dagher, 2014), whereas use of prescription medication has been shown to increase (Burgard & Hawkins, 2014). Suicide rates (Marmot, Bloomer & Goldblatt, 2013) and the prevalence of mental illness also can increase during times of economic downturn (Cooper, 2011; Marmot, Bloomer & Goldblatt, 2013). Populations that are affected the most tend to be male, less educated, young adults, and those who are of lower socioeconomic status prior to the economic downturn (Cooper, 2011; WHO, 2007; Modrek et al., 2013; Marmot, Bloomer & Goldblatt, 2013).

Optimistically, countries such as Sweden have experienced decreased suicide rates during times of economic downturn. Their success seems to be rooted in their level of investment in social welfare programs (Modrek et al., 2013; De Vogli, 2014). Research has shown active labor market programs work as protective factors that can combat the negative effects of unemployment. Mental health promotion, increasing access to mental health programs, psychological support, and increasing mental health program efficiencies have been shown to be beneficial as well (Cooper, 2011; WHO, 2007; Marmot, Bloomer & Goldblatt, 2013; Modrek et al., 2013).
During times of economic downturn, the importance of spending resources wisely becomes more prominent and deciding where to spend resources becomes increasingly challenging. Having information on the trends of health service use, the effects of unemployment, the populations most at risk, and proven preventative strategies can assist with the decision making process.
References


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