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# Alcohol Use Among Middle School Children in Vermont

Sargis Ohanyan

*Univ. of Vermont College of Medicine*

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# Alcohol Use Among Middle School Children in Vermont

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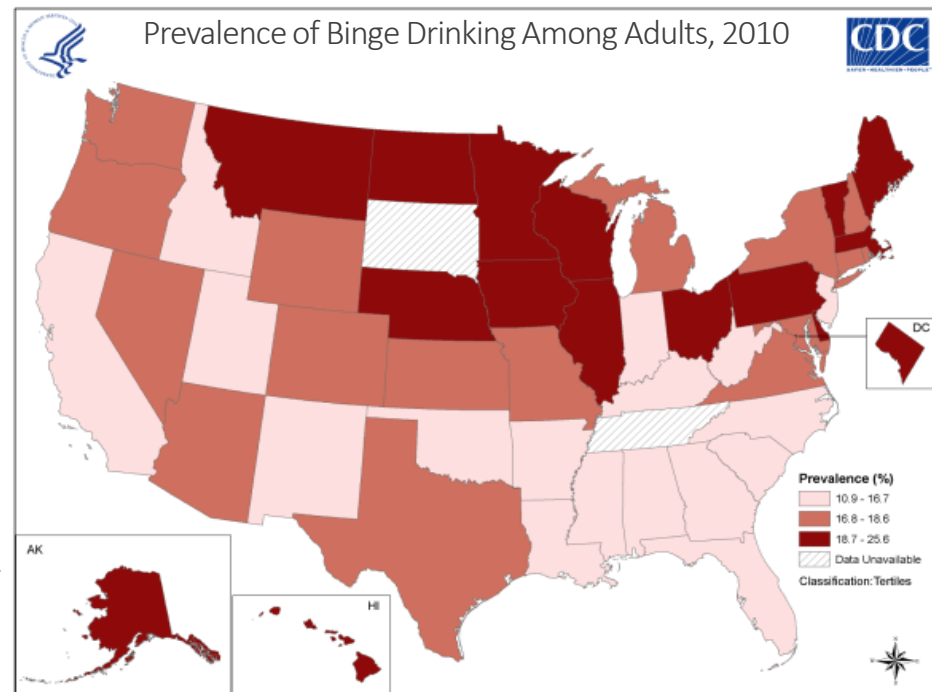
SARGIS OHANYAN

FAMILY MEDICINE CLERKSHIP MAY 11 – JUNE 19, 2015



# Introduction

- With recent attention paid to the heroin use in Vermont, the all-pervasive use of alcohol, the archetypical drug, is overlooked.
- Vermont is ranked # 1 in the nation for most per capita alcohol breweries.<sup>1</sup>
- Vermont is among the top 10 highest rates of binge drinking states in the nation.<sup>2</sup>



map source: CDC

# The Problem

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- Given the high rates of alcohol production and consumption in the state, it may not be surprising that in Vermont nearly **1 in 5 of middle school children have tried alcohol**<sup>3</sup>.
- It is well established that using alcohol before the brain has fully developed increases the risk of future alcohol and other drug addiction by as much as 5 times.<sup>4,5</sup>
- National Council on Alcoholism and Drug Dependence suggests that alcohol serves as a gateway drug to other and more potent drugs<sup>5</sup>.
- While direct correlation relationship is difficult to establish there is a clear association of alcohol use and myriad of other problems such as academic, legal, and mental health including depression, suicide, and homicide<sup>4</sup>.

# True Story: Ian Eaccarino 1975-1996

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“When Ian was fourteen..., he and two friends were caught with marijuana in a parked car... He changed from a happy boy who loved to invite his friends to sleep-overs and home-cooked spaghetti dinners to a sullen and defiant teenager. Suddenly, the kids stopped congregating at our house and we didn’t know where Ian was going... we thought his behavior was part of normal adolescent rebellion, we didn’t realize they were signs of drug abuse.

...I had no idea that by October of his freshman year of college, he was using cocaine. By February of his sophomore year, he was snorting heroin.

...The night before Ian died, he came to me. I knew he had relapsed...The next morning, I got up to do my run. I heard the TV blaring from his room downstairs, went in to shut it off and found Ian lying there... I looked more closely and saw a little blood on his mouth. I yelled, ‘Ian! Wake up!’ He didn’t respond. I ran upstairs screaming for Larry who tried to resuscitate him. I sat there holding Ian’s hand, talking to him, trying to make him hear me, but there was no pulse. There was nothing we could do...”<sup>6</sup>

# The Need

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- Prevention-Screening-Intervention-Treatment model is the foundation for any successful program that deals with substance abuse problems. So, what is available in Vermont?
- **Prevention:** Vermont middle schools provide alcohol and drug education classes as follows;
  - 6 grade: 5 class periods including project Northland movie about alcohol use
  - 7 grade: 10 class periods guided by Burlington Police Department
  - 8 grade: class period varies and is led by both school staff and Burlington Police Department
- **Screening & Intervention**
  - **none identified: it appears that the middle school drinking has fallen through the cracks!**
- **Treatment**
  - Vermont Youth Treatment Enhancement Program targets youth 12 – 24

# Public Costs


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- Repercussion of alcohol use is not limited to individuals or their families.
- Alcohol use is estimated to be responsible for 80,000 deaths in the United States annually<sup>7</sup>.
- Specifically in Vermont, the state is estimated to lose 180 million dollars annually due to alcohol related damages due to ;
  - alcohol related criminal justice system costs
  - motor vehicle crashes and property damages
  - healthcare costs
  - Lost productivity, etc., etc.
- Estimated cost of underage drinking for the state of Vermont is 50 million dollars annually<sup>7</sup>.

# Community Perspective: Interview # 1

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Name withheld, Frederick H. Tuttle Middle School, Health and Physical Education Teacher

- Middle schools in Vermont conduct biannual Alcohol and Drug use survey, but survey is anonymous and no direct intervention is possible based solely on survey results.
  - **There are no formal alcohol or drug screening programs available in any Vermont middle school.**
  - Alcohol use certainly has been and continues to be a big problem in Vermont middle schools, and there is a clear need for intervention.
  - While according to the Frederick H. Tuttle Middle School internal records numbers of alcohol use among middle school students has been reduced from 30% to 20% ever since the introduction of preventive alcohol and drug use educational programs, the problem has clearly not gone away!
  - Screening and intervention is clearly necessary for the 20% of middle school students.
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# Community Perspective: Interview # 2

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Name withheld, LICSW – SBIRT Vermont, QI and Training Coordinator

- SBIRT is an evidence based public health approach for identifying individuals who use alcohol/other drugs at risky levels with the goal to treat and prevent future misuse.<sup>8</sup>
- SBIRT offers screening questionnaires SMAST-G (targets geriatrics), CRAFFT (targets adolescents), AUDIT 10, DAST 10, PHQ 9 (targets general population).
- **SBIRT currently does not offer any questionnaires that target middle school age group in Vermont.**
- However, interviewee # 2 agrees with me that alcohol is similar to cigarettes in a sense that there is no safe limit when it comes to underage drinking, especially when middle school children are involved.
- Interviewee # 2 supports my plan to introduce a pilot screening questionnaire in middle schools sometime in the near future.

# Intervention and Methodology

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- The timing of this project overlapped with summer school vacation, therefore the best way to intervene at this time is to raise awareness of the need, by publishing the information gathered.
- Methodology: gathering information from online recourses (please see references) as well as interviewing a representative from Vermont middle school and also a representative from Vermont alcohol and drug abuse program (SBIRT Vermont).
- This project was completed in hopes of gathering information for a more serious community health work in the future (see future direction).
- Preliminary agreement has been reached with Frederick H. Tuttle Middle School to introduce a pilot screening questionnaire in the near future (due to the school summer vacation, it was not feasible to do so at this time).

# Results and Response

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- Assessing results when it comes to raising awareness takes time and 5 weeks in this case is not adequate to do so, not to mention that this project is yet to be published.
- One possible method to assess the results and effectiveness of this program in the future will be reassessing for screening/intervention programs available for middle school via the Vermont Department of Health and/or in Vermont middle schools themselves, which would in theory estimate the effectiveness by which awareness was raised regarding the issue.
- Both members of this community interviewed have expressed approval of this project and think that there is certainly a public need for middle school alcohol use screening/intervention, thus so far the community response to this project has been positive.
- Wider response from the community will not be known until this project is published and more awareness is raised.

# Limitations

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- The information gathered for this project has come from 2011 and 2013 Vermont Middle School Youth Risk Behavior Survey. Since those surveys are conducted bi-annually, the findings for 2015 were not available when this project was written. Thus, the numbers presented here may or may not represent the current state of the issue. However, according to the Frederick H. Tuttle Middle School internal survey, the alcohol use in the aforementioned middle school has unfortunately remained approximately the same. Moreover, given the current state of unawareness of the issue, the alcohol use in Vermont middle schools is unlikely to decrease drastically.
- Interviewing 2 residents from the community is nearly not enough to confidently assess our community's attitude toward middle school drinking and the need for screening/intervention. Future projects should aim to survey much larger and more diverse representative sample from the community.

# Future Plans

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- Develop a screening questionnaire constructed from and inspired by AUDIT 10, DAST 10, PHQ 9, CRAFFT and SMAST –G with middle school appropriate language.
- Preliminary agreement has already been reached with the Frederick H. Tuttle Middle School.
- Introduce a pilot screening program in at least one Vermont middle school in the Fall of 2016, to be distributed during alcohol and drug education class.
- Apply for a state grant for SBIRT or other publicly funded drug and alcohol abuse program to provide appropriate training of the middle school staff responsible for distributing, analyzing, and intervening based on the screening questionnaire.

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