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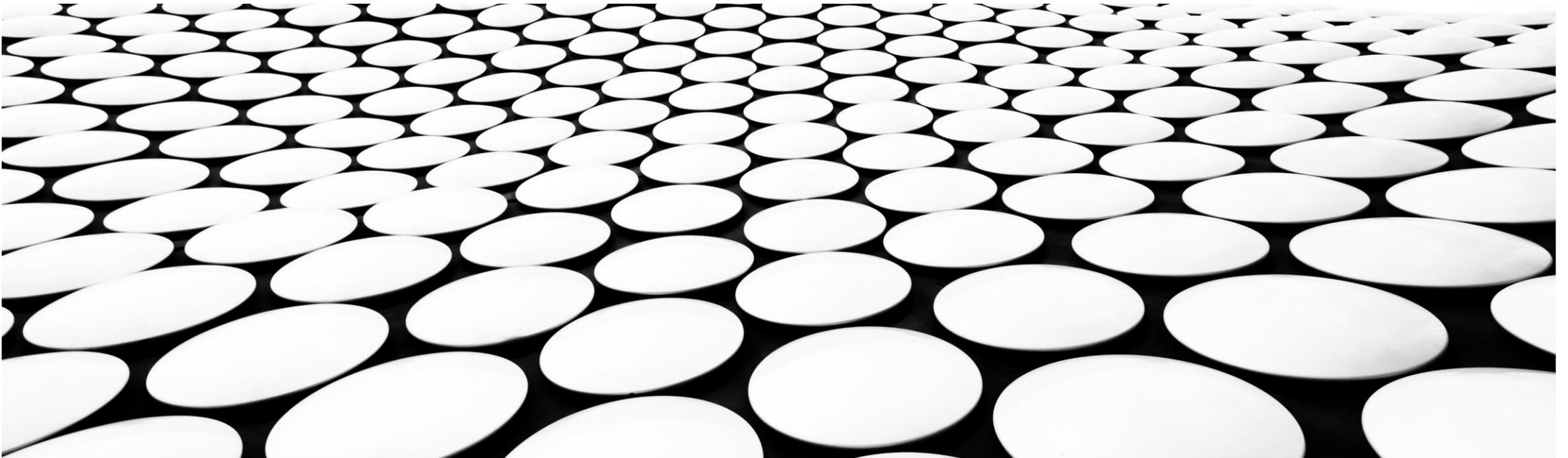
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DISTRIBUTION OF RESUSCITATIVE MEASURES IN LAMOILLE COUNTY, VERMONT SCHOOLS

BY JARED BOMBA, MS3, COMMUNITY HEALTH PROJECT FOR FAMILY MEDICINE CLERKSHIP, FEBRUARY-MARCH 2020,
MENTORED BY KATHERINE MARVIN, MD, STOWE FAMILY PRACTICE



WHY IT MATTERS

An initiative within the last school year saw the introduction of naloxone to schools in Lamoille County due to the high rate of addiction in the region

Automated external defibrillators (AEDs) have been inconsistently available at schools in Lamoille County



PUBLIC HEALTH COST

- In Q3 2019 there were 8831 Vermonters engaged in Medication Assisted Treatment (MAT) programs for opioid use disorder using Vermont's "hub and spoke" system
- There are estimated to be 15,000-20,000 Vermonters in need of treatment for opioid use disorder
- There were 89 deaths associated with opioid overdose in Vermont in the first nine months of 2019
- 16.2 of every 10,000 Emergency Department visit in Vermont were the result of a non-fatal opioid overdose
- Specific data for Lamoille county was not available but numerous patients are treated daily at Stowe Family Practice, one of the "spokes" in the Vermont MAT program



COMMUNITY PERSPECTIVE

- “We haven’t had the funds to purchase an AED for our school.” – elementary school nurse who did not wish to be identified
- “I know addiction is a problem for the parents of many of our students and I worry about what could happen at an after-school event.” – another elementary school nurse who did not wish to be identified
- School nurses throughout the county had concerns about being identified after giving comment regarding the availability and placement of naloxone in schools

METHOD

- School nurses were interviewed throughout Lamoille County with the following specific questions:
 - What resuscitative measures are available at your school?
 - Is Narcan available in your school? If not, why?
 - If not, would you be willing to consider its introduction based on the prevalence of opioid addiction in our local communities?
 - If yes, where is it kept and who has access to it at what times?
 - In this school year, has Narcan been needed during any events which have taken place at the school?

RESULTS

- Lamoille County consists of 12 public campuses containing three middle/high schools, nine elementary schools, and one tech school
- 58% of campuses had an AED on campus including all three middle/high schools, the tech school, and four of nine (44%) of elementary schools
 - The five schools without AEDs all stated that funding was the problem
- 92% of schools had epi-pens available
 - The one elementary school without is a one room schoolhouse with minimally medically trained staff
- 75% of responding campuses had Narcan available on campus including all three middle/high schools, the tech school, and six of nine (67%) of elementary schools
 - The nurses at the two schools without Narcan were unsure why they didn't have it with one being supportive of it being available while the other was willing to consider it but had no strong opinion or was unwilling to voice one
 - At schools with Narcan available, 63% had it placed with the school nurse with only the nurse trained and no one able to access it after hours when parents and other community members were likely to be on campus; one of these stated during the interview that it would be moved to be placed with the AED as a result of this conversation; another stated there were liability concerns surrounding public access to Narcan
 - At one school, the nurse and front desk staff could access Narcan and were trained but it could not be accessed after 6pm when staff had left
 - At the largest campus interviewed, containing a middle/high school and tech school, there were two Narcan nasal applicators placed with each AED on campus
- None of the schools had an incident requiring Narcan during the current school year

EFFECTIVENESS AND LIMITATIONS

This data is limited by the reluctance of most school nurses to be identified resulting in poor accountability. This may be attributed to fear of retribution for nurses who work in very small schools and small communities.

This data was effective in identifying barriers to AED and naloxone access in Lamoille County schools. The long term effectiveness of these measures should be followed with regular updates on improved access to AEDs and Narcan as well as follow-up on any uses of resuscitative measures in any of these schools.

AREAS FOR FUTURE IMPROVEMENT

- Identifying a source of funding for schools without AEDs
- Long term goal of achieving Vermont Heart Safe Community status for Lamoille County towns
- Improving access to naloxone and training among staff at schools in Lamoille County
- Reducing stigma surrounding Narcan being placed in schools by treating it as a standard part of resuscitative measures



REFERENCES

- “Monthly Opioid Update, December 2019.” *Vermont Department of Health*, www.healthvermont.gov/response/alcohol-drugs.