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# Should 16-Year-Olds Be Allowed to Donate Blood? A Vermont Perspective

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# Should 16 Year-Olds Be Allowed to Donate Blood? A Vermont Perspective



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## Introduction

Supplying adequate blood for transfusions is an ongoing challenge for blood collection agencies.<sup>1</sup> One potential source of increased Whole Blood (WB) supply is among 16-17 year-olds, whose donation rates are still quite low. In 2010, donors aged 16-18 years-old provided 14% of all WB collected by the American Red Cross.<sup>2</sup> Young donors may represent an opportunity to establish a committed, long-term blood donation base as they are more likely to return after first donation and donate at a higher yield rate than older donors.<sup>3</sup> However, younger donors also have higher rates of adverse events during donation.<sup>4</sup> Currently, 38 states allow 16 year-olds to donate blood with parental consent but Vermont is not among them.<sup>5</sup> Our study examines the public's comfort with 16 year-olds donating blood. As blood donation is a voluntary system, ascertaining the perspective of the general population regarding this issue could contribute to a policy debate surrounding the minimum age of donation.

## Methods

- An anonymous survey was distributed to 2000 adult blood donors from the American Red Cross Northern New England Blood Services Region (ARC).
- The mailing list included randomly selected Vermont residents, who had donated blood from 2009 – 2011.
- The survey contained 7 demographic questions and 15 statements addressing attitudes towards 16 year-olds donating blood.
- Statements were chosen to represent three domains regarding safety, autonomy, and benefit to society. Within each domain, a global statement was included to assess attitudes apart from blood donation.
- Survey statements were based on a 3-point Likert scale: Agree, Neutral, or Disagree.
- This study was approved by the UVM Office of Research Protections and ARC IRB.
- Chi-squared analysis was conducted for the statement “A 16 year-old should be allowed to donate blood.” Likert-scale responses were aggregated as averages within domains and reported with 95% CI. T-tests were used to compare sub-population domain score means.

## References

- The 2009 National Blood Collection & Utilization Survey Report. Washington, DC: US Dept. of Health & Human Services, Office of Assistant Secretary for Health, 2011.
- Eder AF. Improving Safety for Young Blood Donors. *Transfus Med Rev.* 2011 Aug 25.
- Notari EP, et al. Age-related donor return patterns among first-time blood donors in the United States. *Transfusion.* 2009;49(10):2229-36.
- Custer B, et al. Adverse reactions and other factors that impact subsequent blood donation visits. *Transfusion.* 2011 June 17.
- American Red Cross. Personal communication.

## Survey Respondent Demographics

Table 1	% Total Responses
<b>Gender (n=520)</b>	
Male	39.8
Female	60.0
Other	0.2
<b>Age, years (n=521)</b>	
18-20	2.5
21-30	6.3
31-40	8.6
41-50	18.6
51-60	26.9
61+	37.0
<b>Frequency of Donation, times per year (n=490)</b>	
<2	12.0
2-4	76.5
4+	11.4
<b>Report having children 16-17 y/o (n=519)</b>	
Yes	9.4
No	90.6

## Should 16 Year-Olds Be Allowed to Donate Blood?

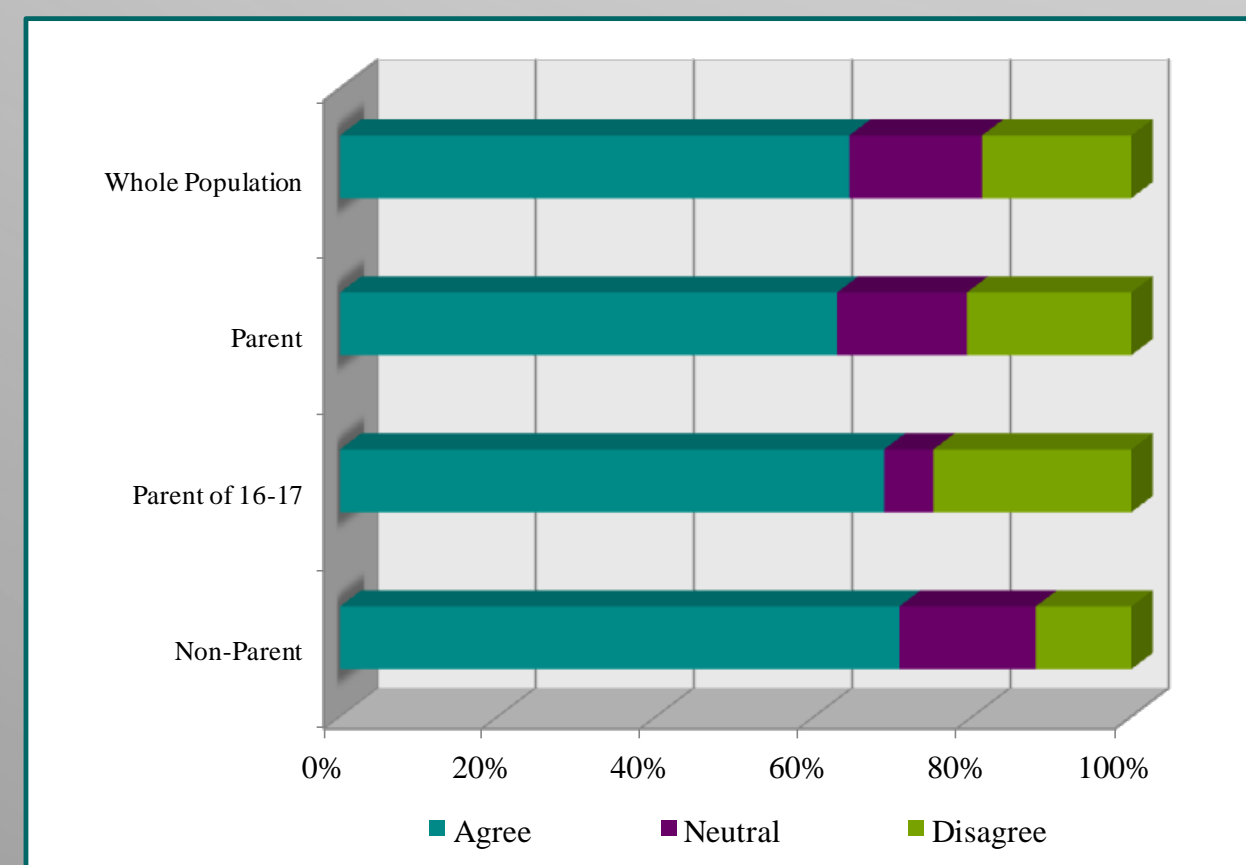


Figure 2: Responses to the statement “A 16 year-old should be allowed to donate blood” for all respondents and for three sub-groups: All Parents, Parents of 16-17 year-olds, and Non-Parents. The data shows that 62% of all respondents agreed with allowing 16 year-olds to donate blood, and the agreement amongst the sub-groups ranged from 62–70%.

## Respondents by County

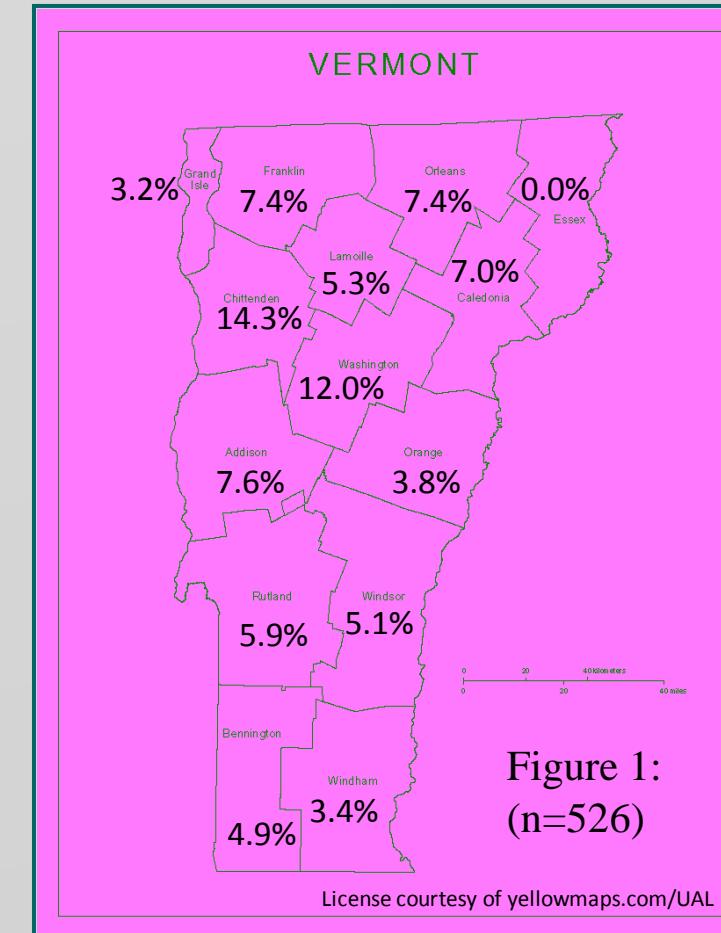


Figure 1: (n=526)

## Domain Scores

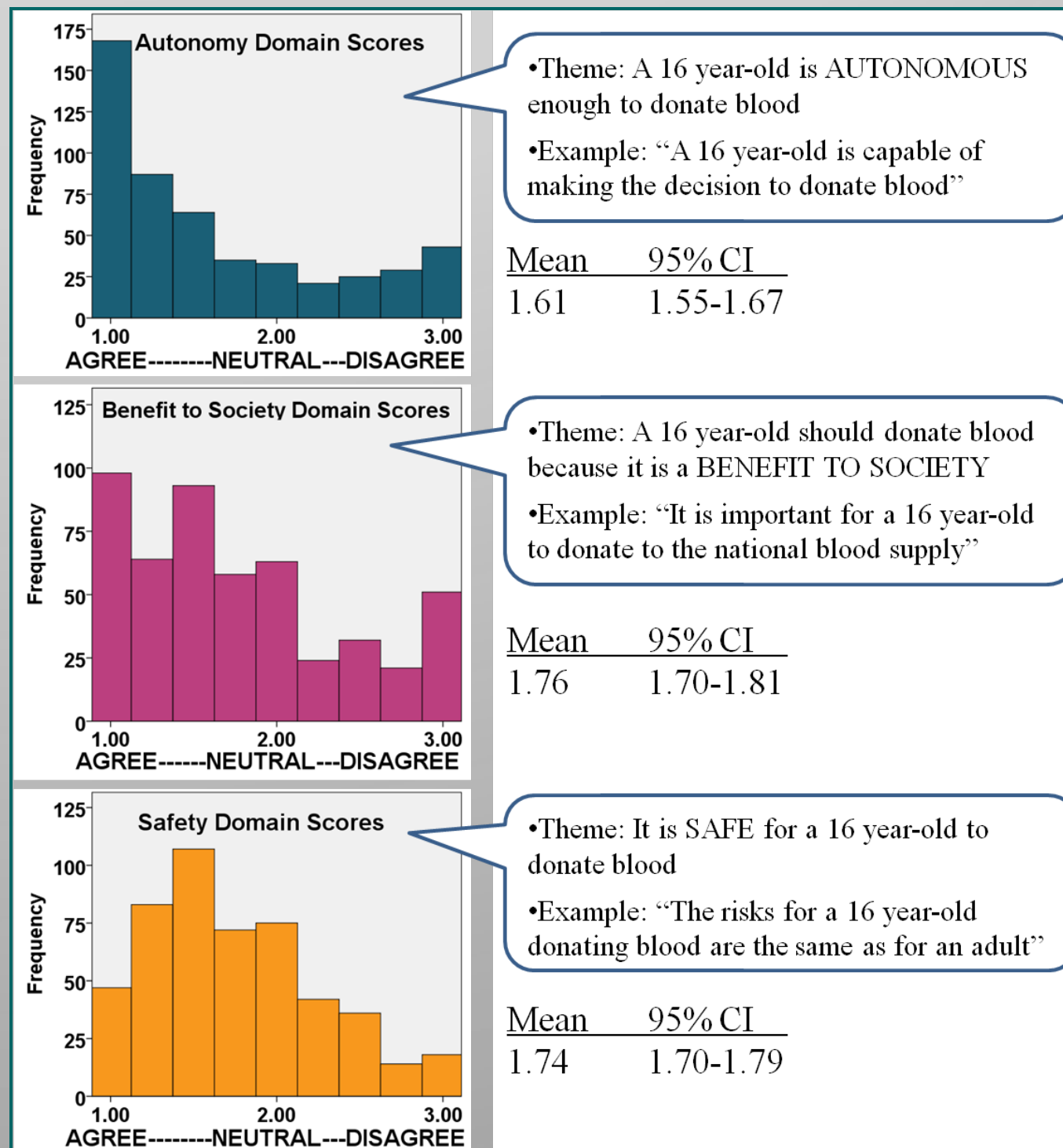


Figure 3: Mean scores and 95% CI for the three domains that encompassed the statements in the survey: Autonomy, Benefit to Society, and Safety

## Results

- The majority of survey respondents agreed that 16 year-olds should be allowed to donate blood.
- There was a general consensus in favor of 16 year-old blood donation regarding the domains of autonomy, safety, and benefit to society.
- Support was most robust for autonomy.
- All sub-populations (all parents, parents of 16 and 17 year-olds, and non-parents) were in favor of 16 year-olds donating blood across all domains.
- Global domain statements were consistent with the blood donation domain scores, with slightly less agreement for the benefit to society domain. Respondents overwhelmingly agreed with the global statement, “A 16 year-old should participate in community service,” indicating that it was not an accurate reflection of the respondent’s views on the benefits of 16 year-old blood donation to society.

## Study Limitations

- Distribution of the survey only to prior blood donors may limit the ability to use this study as a representation of the views of the whole population of Vermont.
- The questions were not validated.
  - No previous studies were available to assist with question creation.
  - Questions were not previously tested for predictability with individuals who had made a decision about a 16 year-old donating blood.
- The majority of respondents were older than the average age of the current donor population.

## Conclusions

- The survey results suggest that Vermont blood donors, regardless of age, gender, or parenthood, favor allowing 16 year-olds to become blood donors, even though Vermont currently does not allow it.
- Future studies could be expanded to include non-blood donors to make a broader statement about how comfortable residents are with allowing 16 year-olds to donate blood in Vermont.

## Acknowledgments

- Dr. Thomas V. Delaney (statistical support)
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