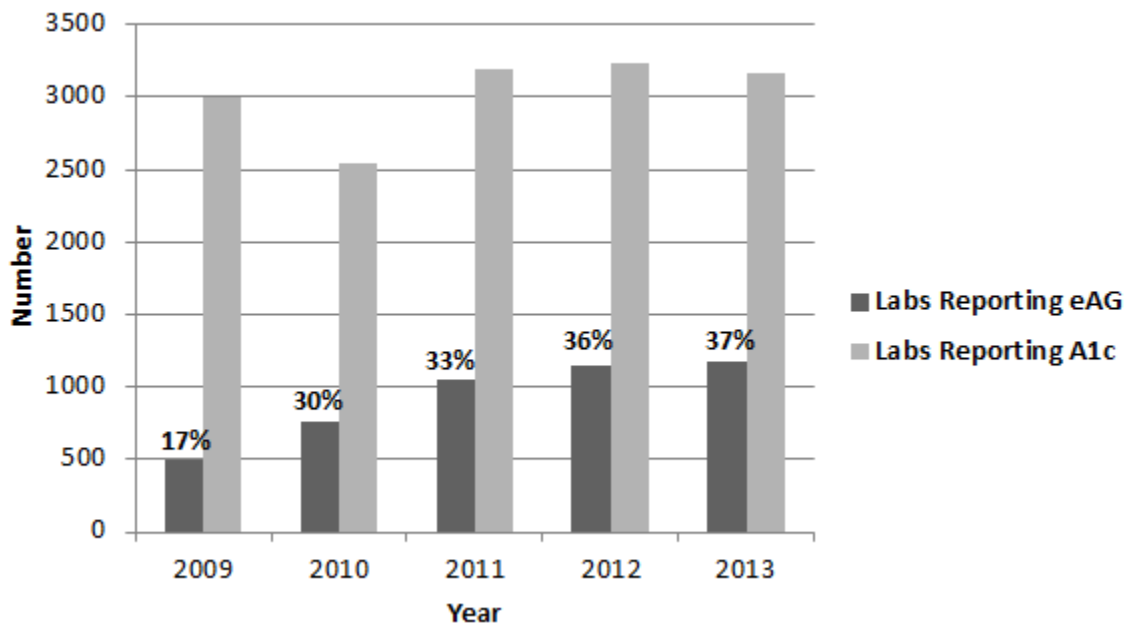


For the past several years, we have been asking our participants questions related to their practices on reporting estimated average glucose (eAG), a value that can be calculated from the Hemoglobin A1c result. Although there has been a lot of controversy surrounding the utility of eAG,<sup>1,2</sup> the American Diabetes Association and the American Association for Clinical Chemistry both recommend that eAG be reported in conjunction with A1c.<sup>3</sup>

[Note that these recommendations apply only to the United States, where most laboratories still report A1c results as a percentage according to the original NGSP recommendations. In the rest of the world, most laboratories have adopted the new standardization and new units (mmol/mol).]

The trends in reporting eAG among participants in this survey are reflected in Figure 1. The number of laboratories providing answers to our questions has remained relatively constant at roughly 3000, except for a slight decrease in 2010. Although there was an initial increase in the percentage of laboratories reporting eAG from 2009 to 2010 (17% to 30%), there hasn't been much of an increase since then, with rates appearing to plateau at roughly 35%. That means, despite the recommendations, roughly 65% of laboratories do not report eAG (almost twice as many).

Figure 1. Trend in reporting eAG.

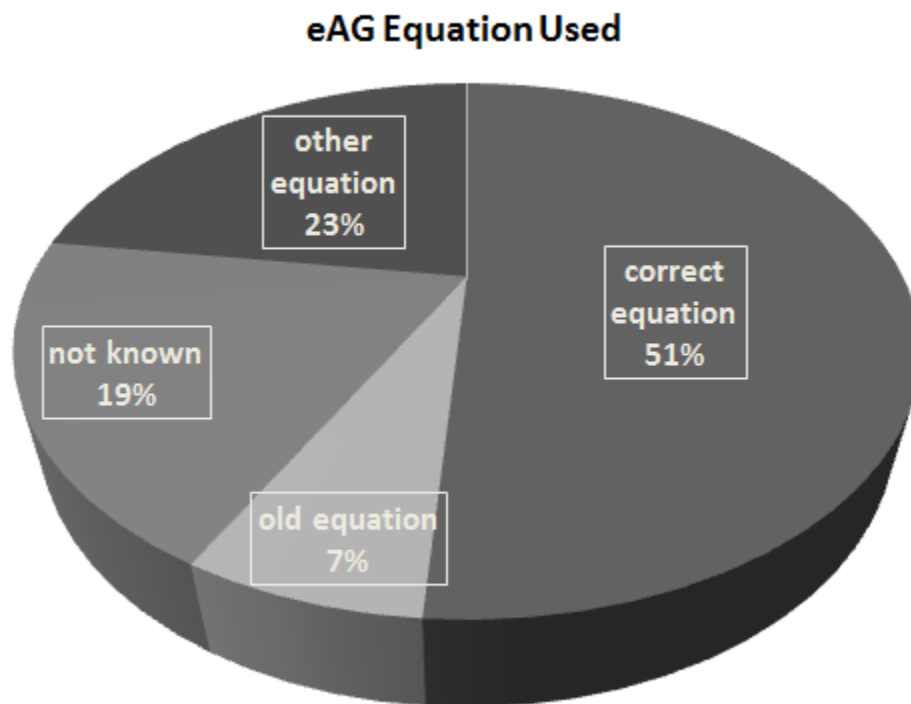


Another interesting finding from our survey involves the calculation itself. For laboratories who do report eAG, we asked which equation they used, providing them with the following choices:

- 1)  $28.7 \times \text{HbA1c} - 46.7$
- 2)  $35.6 \times \text{HbA1c} - 77.3$
- 3) Don't know

- 4) Other equationThe first choice is the currently recommended equation.<sup>4</sup> The second choice represents an old equation, based on a limited data set, that really should not be used. The third and fourth choices are self-explanatory; of note, though, among the “other” equations provided by participants, none was particularly frequent. As shown in Figure 2, the good news is that roughly 50% of participants are using the proper equation; the bad news is that at least 30% are using an incorrect equation, with almost 20% not sure which equation they are using.

Figure 2.



These are, to say the least, very interesting results. We're not sure what they mean, but we thought we ought to share the findings with you.

#### References

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4. Nathan DM, Kuenen J, Borg R, Zheng H, Schoenfeld D, Heine RJ. Translating the hemoglobin A1c assay into estimated average glucose values. Diabetes Care 2008;31:1473-1478.

Gary Horowitz, MD, FCAP, Chair  
Chemistry Resource Committee