



Educational Impact of Helping Babies Breathe (HBB) Classes on Knowledge And Confidence in Shirati, Tanzania

Rameen Atefi OMS II, Omeed Atefi OMS II, Alissa Farrell DO, Eiman Mahmoud MD MPH

Welcome!

Background

Methods

Results

Conclusions





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HBB is an evidence-based neonatal resuscitation program that is taught to help lower neonatal mortality. Tanzania's neonatal mortality is nearly 5 times that of the United States', with approximately 30% of deaths occurring during the first day of life. The purpose of this study is to assess the impact of educational sessions on knowledge and confidence of nursing students towards neonatal resuscitations techniques in Shirati.



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A one-day HBB class was taught to 46 nursing students in Shirati, Tanzania on June 13th, 2017. A HBB survey was given to students before and after the class to assess their neonatal resuscitation skills. Topics on the survey included questions related to HBB and confidence in bag-valve mask use. These surveys were then compared to quantitatively understand changes in knowledge and confidence after training.

Total Score	Depression Severity
0-4	Minimal
5-9	Mild
10-14	Moderate
15-19	Moderately Severe
20-27	Severe



Before Class Assessment

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Before Class:

- Which of the following best describes you?
 Midwife
 Nurse
 Medical Officer
 Doctor
 Nursing student
 Health extension worker
 Other: _____
- Have you ever been trained in or attended a "Helping Babies Breathe" class?
 Yes
 No
- Within the first minute of life, what is the most important factor that will lead you to intervene and help a baby breathe?
 Heart rate less than 150 beats per minute
 Baby is not crying or breathing well
 Baby is born blue
 Always intervene and provide breathing assistance
- When should you start using the bag-valve mask?
 Only when a doctor is present
 When the baby is born blue
 If you have cleared the airway, stimulated, and the baby is still not breathing
 When the baby has not been breathing for over 2 minutes
- How long do you have to dry the baby, assess breathing, and provide respiratory intervention if the baby needs it?
 1 minute
 3 minutes
 5 minutes
 10 minutes
- Do you feel comfortable using the bag-valve mask?
 Yes
 No
- How many breaths per minute should you give to a newborn baby with a bag-valve mask who is not breathing?
 You should never provide breathing intervention
 12 - 20 breaths per minute
 30 breaths per minute
 40 breaths per minute

Welcome!

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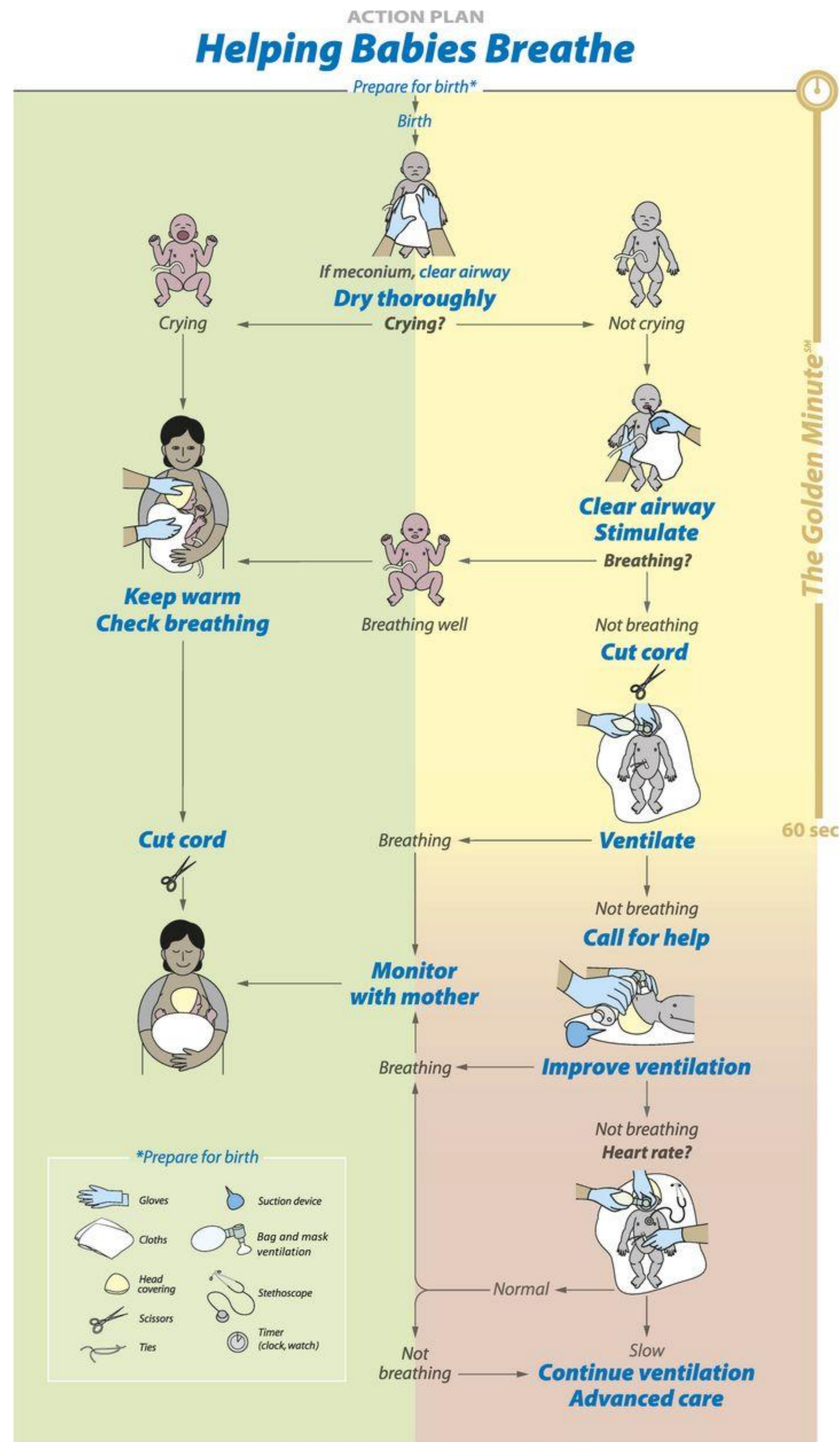
Methods

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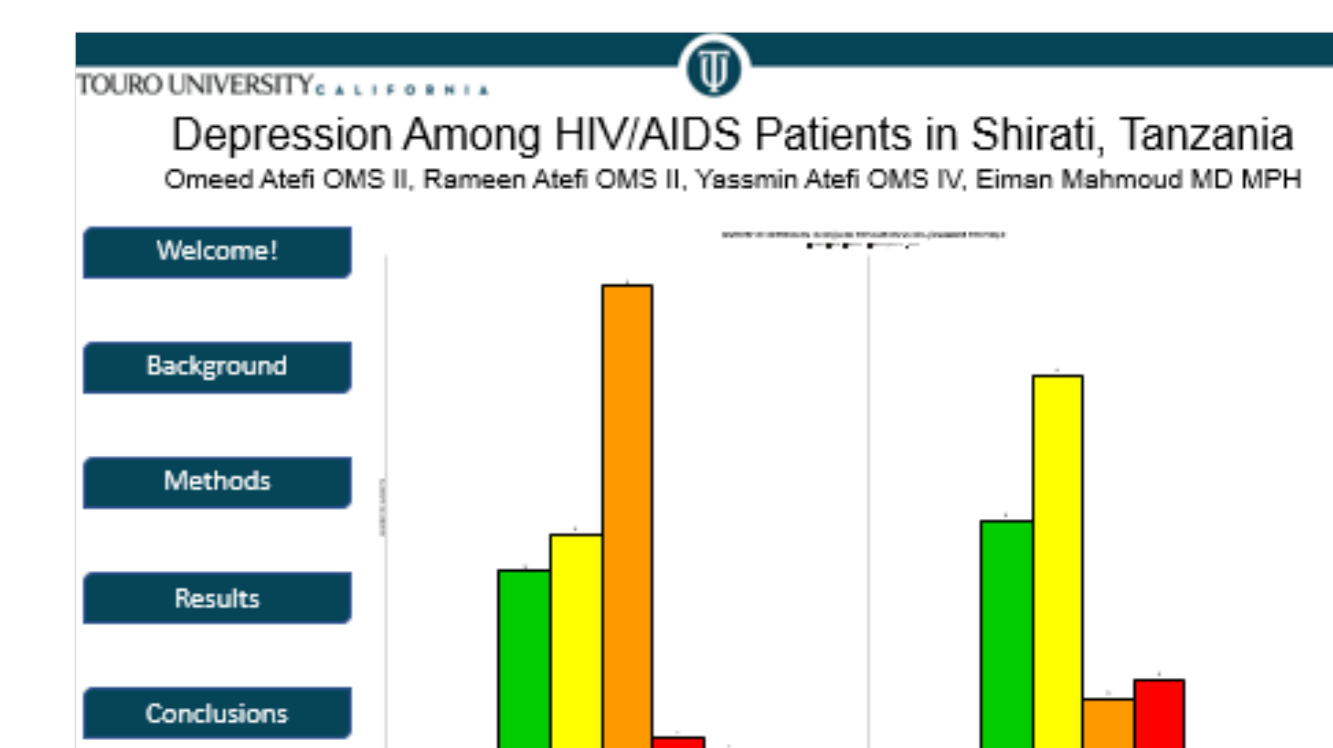
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Average class quiz performance increased by 18.5% (70.1% to 88.6%). There was a 43.5% increase in the number of students who received a 100% on the survey after attending the training. Confidence in using a bag-valve mask for resuscitation increased by 24% (71.7% to 95.7%). 100% of the students found the class to be useful, 80.4% felt that they would use the knowledge gained during the session in the future.





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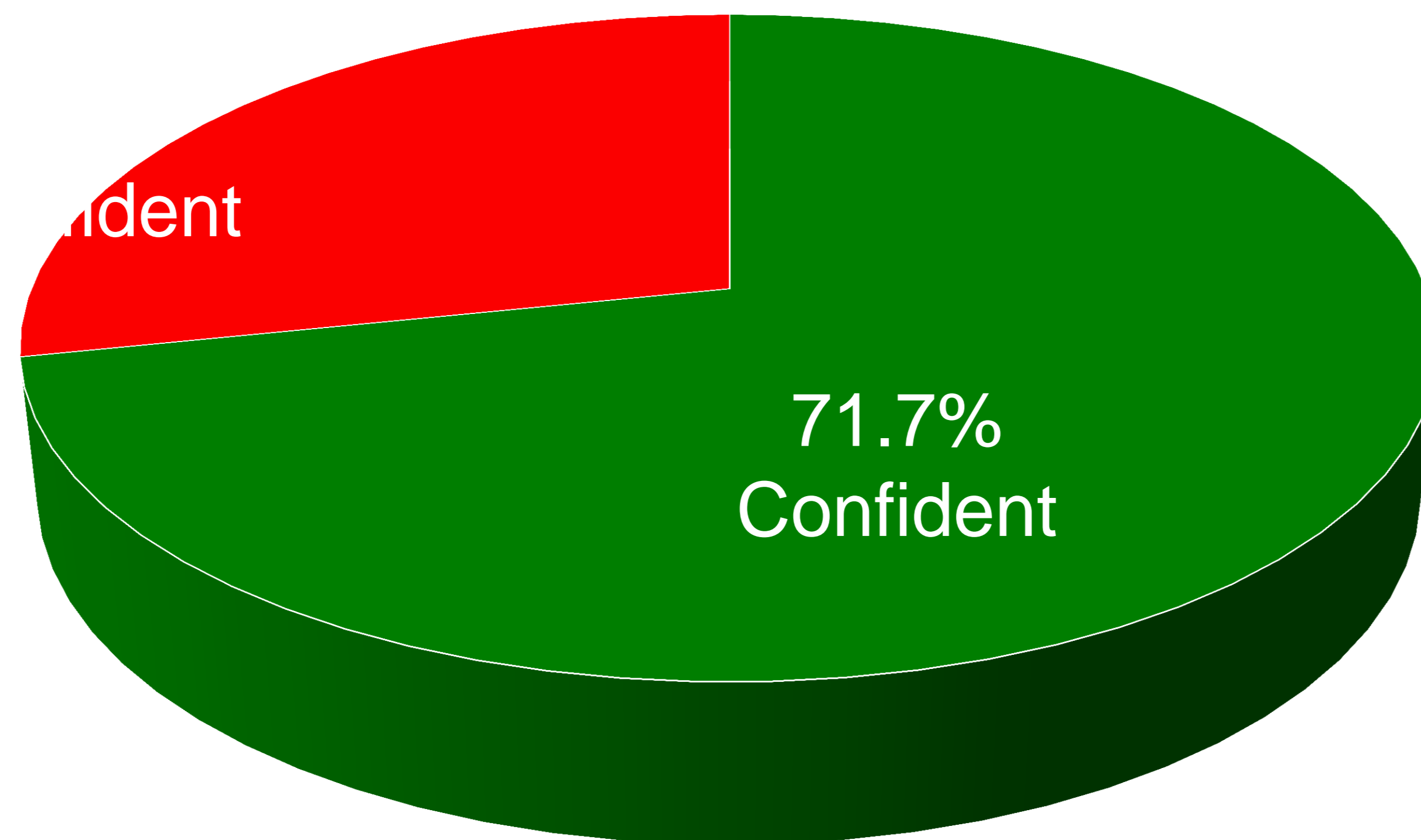
Background

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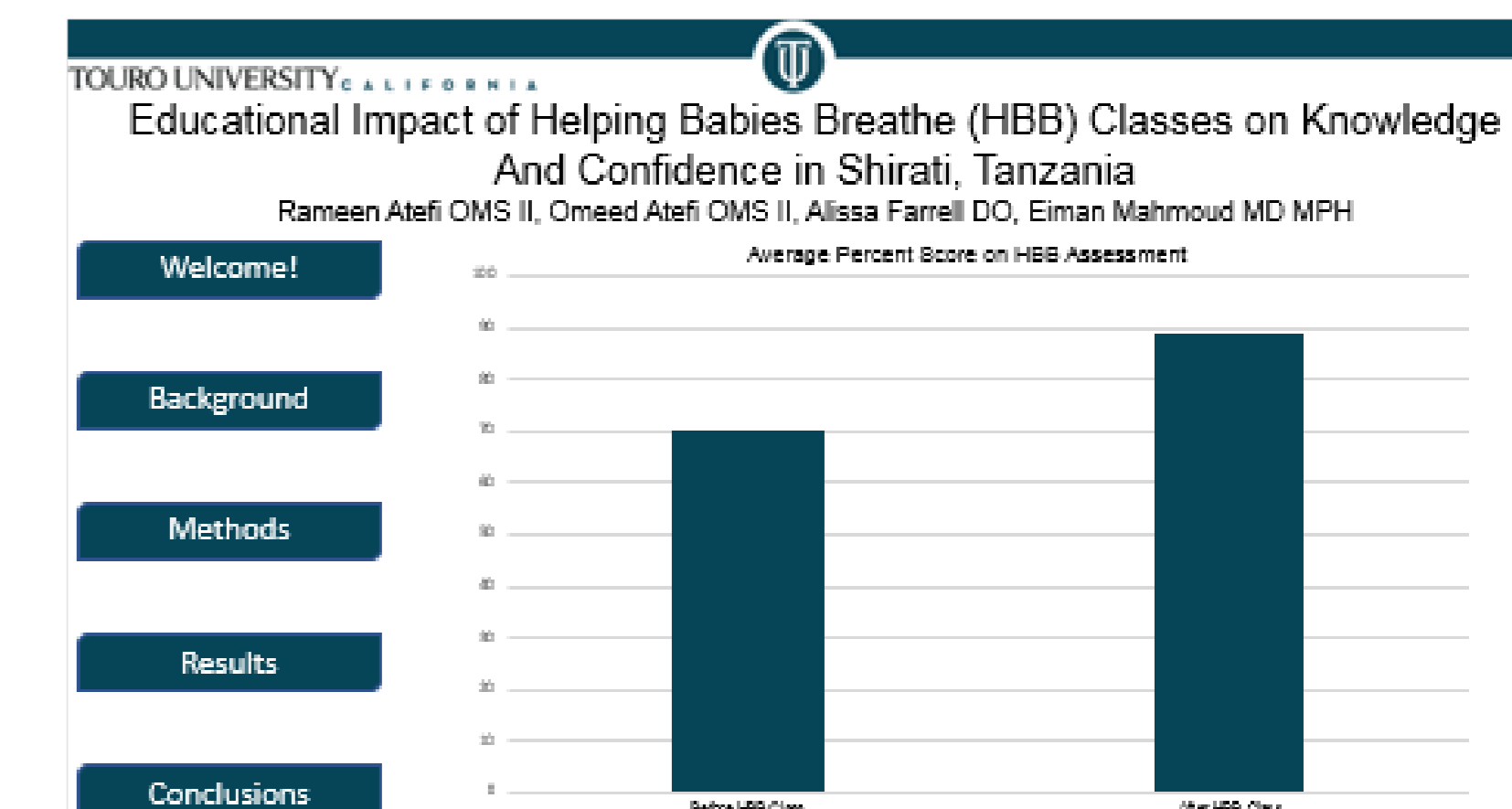
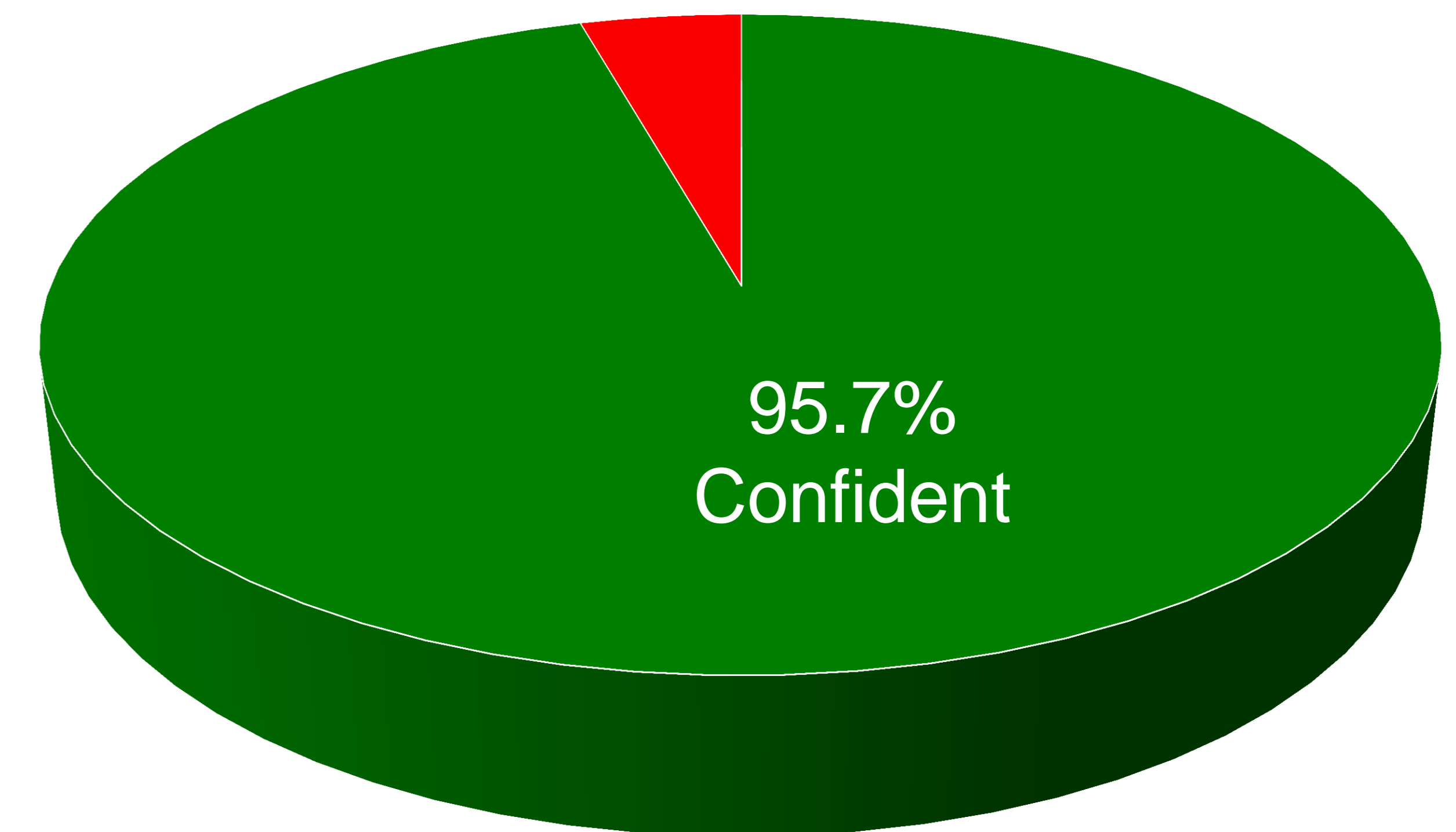
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Self-Reported Confidence in Bag Valve Mask Use Before Class



Self-Reported Confidence in Bag Valve Mask Use After Class





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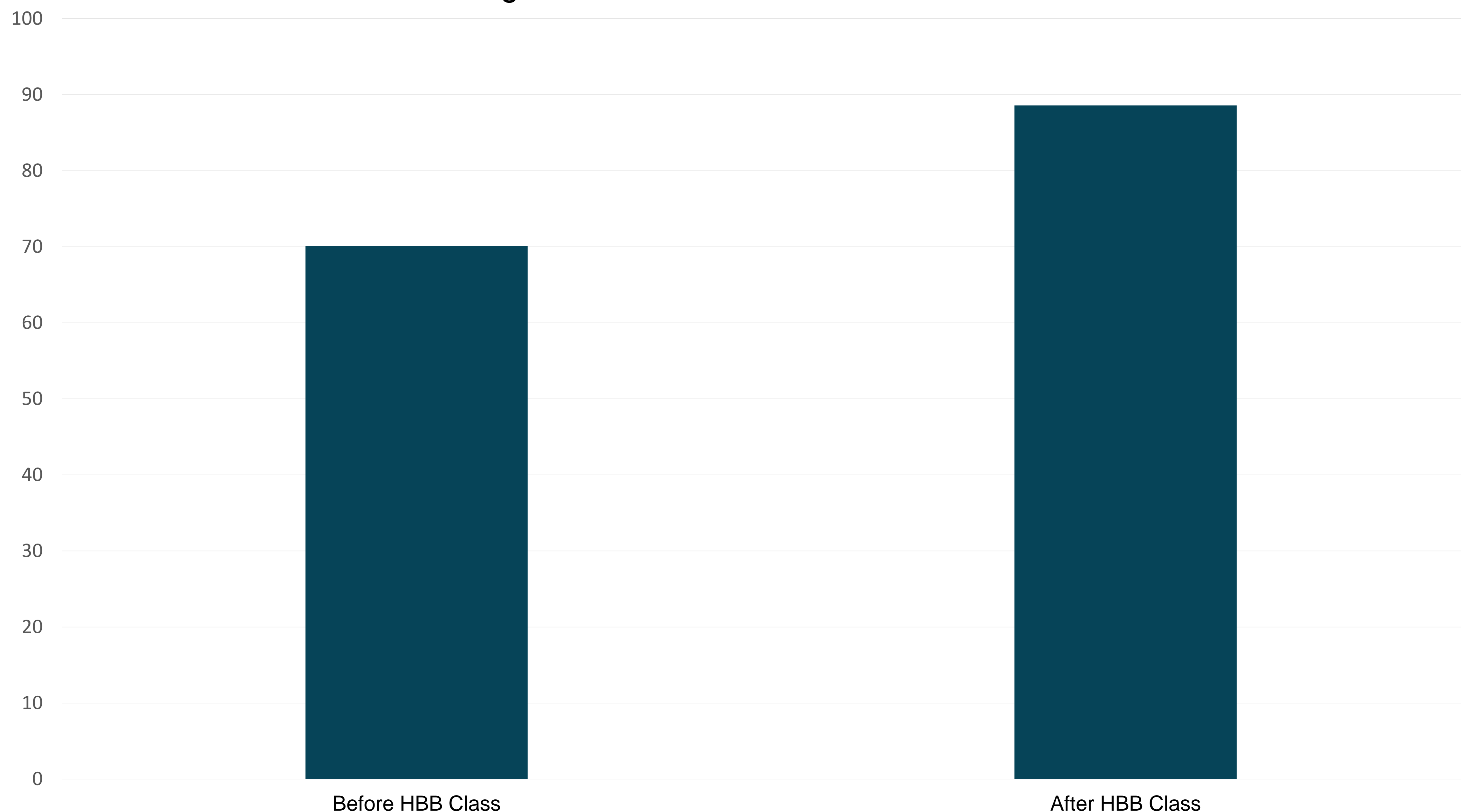
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Average Percent Score on HBB Assessment





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These results are promising for future trainees as it demonstrates that those who attend the class are more likely to improve their disposition and knowledge regarding neonatal resuscitation.

Background

Designating an outstanding student or nurse to regularly teach refresher classes could help reinforce proven resuscitation

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techniques and discourage ingrained, negative habits. Future studies should assess the same population for retention of

Results

knowledge, and reach out to more rural populations with similar classes and surveys. With continued training, application of

Conclusions

HBB can continue the downward trend of neonatal deaths in Tanzania.



Before Class:

1. Which of the following best describes you?

- Midwife
- Nurse
- Medical Officer
- Doctor
- Nursing student
- Health extension worker
- Other: _____

Welcome!

2. Have you ever been trained in or attended a "Helping Babies Breathe" class?

- Yes
- No

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3. Within the first minute of life, what is the most important factor that will lead you to intervene and help a baby breathe?

- Heart rate less than 150 beats per minute
- Baby is not crying or breathing well
- Baby is born blue
- Always intervene and provide breathing assistance

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4. When should you start using the bag-valve mask?

- Only when a doctor is present
- When the baby is born blue
- If you have cleared the airway, stimulated, and the baby is still not breathing
- When the baby has not been breathing for over 2 minutes

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5. How long do you have to dry the baby, assess breathing, and provide respiratory intervention if the baby needs it?

- 1 minute
- 3 minutes
- 5 minutes
- 10 minutes

Conclusions

6. Do you feel comfortable using the bag-valve mask?

- Yes
- No

7. How many breaths per minute should you give to a newborn baby with a bag-valve mask who is not breathing?

- You should never provide breathing intervention
- 12 - 20 breaths per minute
- 30 breaths per minute
- 40 breaths per minute