

## What's the Problem?

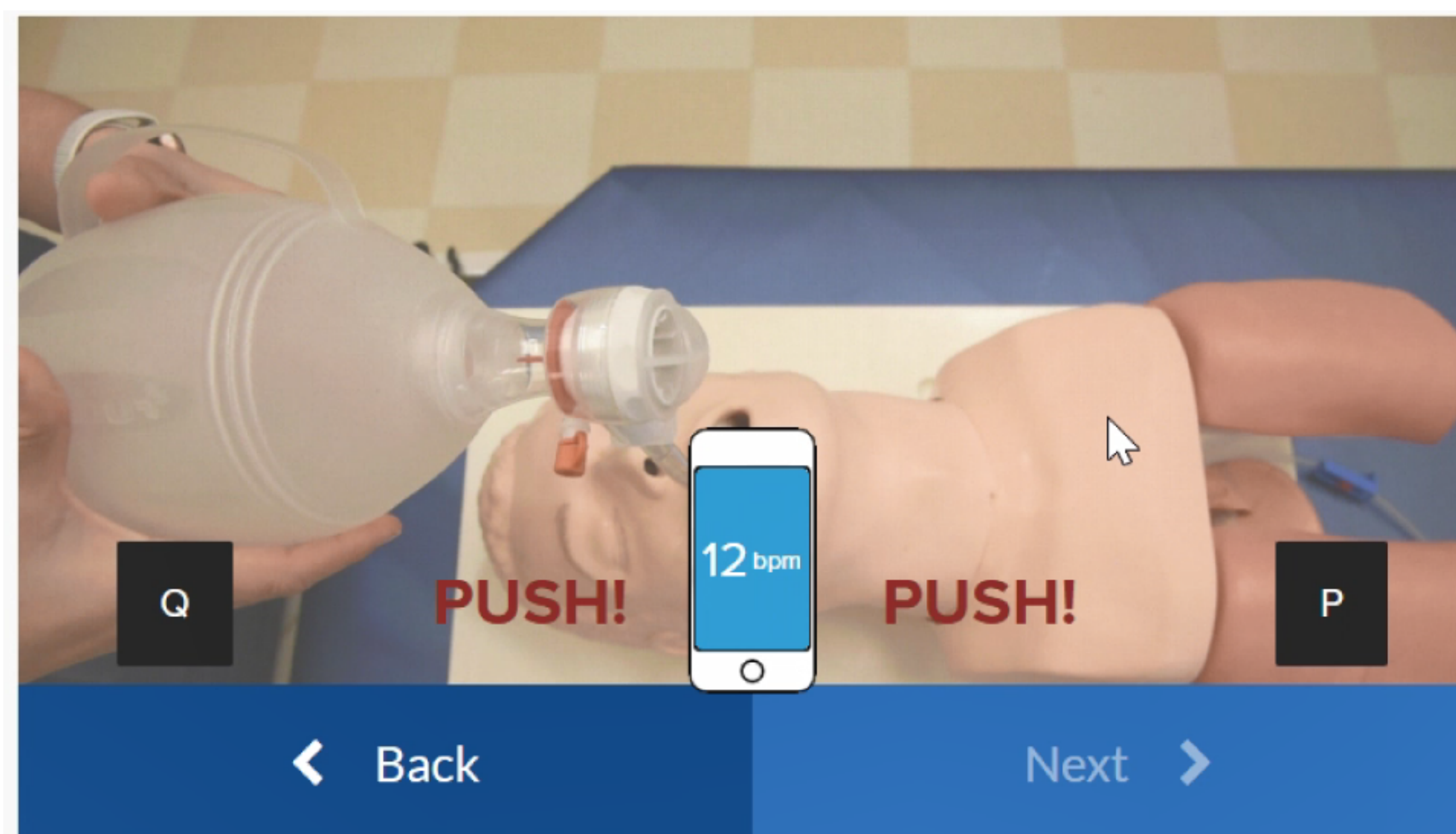
- The COVID-19 pandemic has threatened ventilator capacity in many locations which has led to alternative solutions to meet surge ventilator capacity including a strategy for deploying large-scale volunteer continuous bag-valve-tube (BVT) ventilation
- While an online training module may teach the manual ventilation volunteer force requisite knowledge, evidence suggests technology-enhanced simulation training in health professions training is associated with improved outcomes for desired knowledge, skills and behaviors

## Our Solution

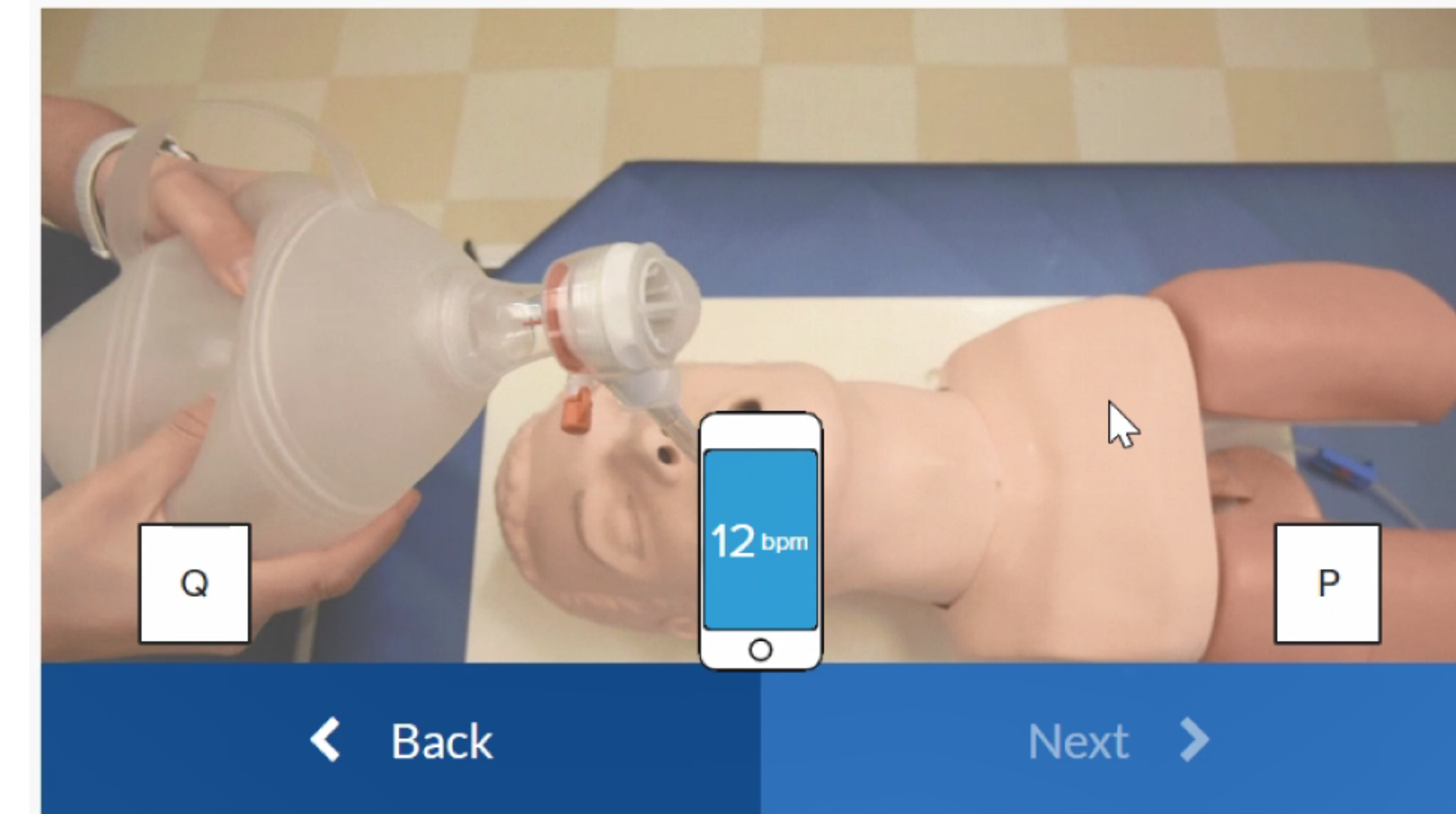


A team from the Thomas Jefferson University Health Design Lab worked with local software engineers to create a web-based application that simulates bag-valve-tube ventilation

## HMW Virtually Simulate Manual BVT Ventilation for Volunteers During a Pandemic?

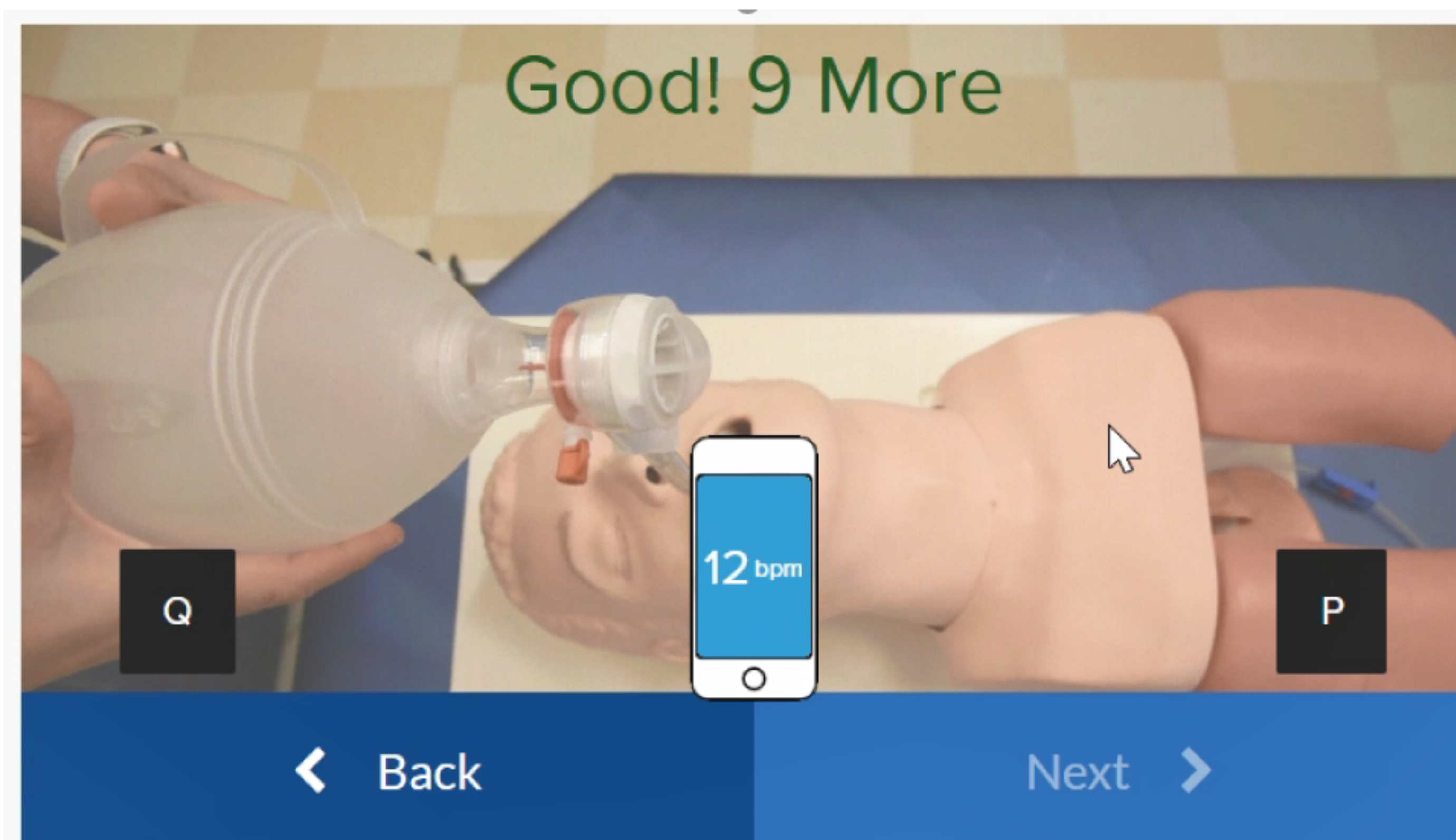


The application instructs users to squeeze the ambu-bag in sync with an on-screen "mobile metronome"



Users can place thumbs on "P" and "Q" keys to simulate ambu-bag technique

Images are shown from the desktop version, however users can also access with tablets or mobile phones



- The ventilation rate can be adjusted using the in-application metronome feature
- Users are asked to complete the simulation for one minute during which they receive real-time feedback on ventilation timing and technique

Access the simulation here: <https://rescueventilation.com/ventilation-simulation>