

A Buzz about Dengue

“A Serious Game about Dengue”
#110



Why this game?

40% of the world's population is at risk*



Every **1 minute** someone is admitted to hospital with dengue fever*

The risk is spreading!
Enabling factors:



Population growth



Unplanned urbanisation



Lack of sanitation



Ineffective mosquito control



Long-distance travel



Impacts of Climate Change

*(IFRC, 2014)

Link with Climate Change

While relationships between climate, physical and biological factors that influence dengue transmission are complex, we know that at higher temperatures, dengue mosquitoes fly faster and further, reproduce more rapidly and bite more frequently.

Game overview

Description: A Buzz about Dengue is a quick, team-based strategy game that teaches players how to combat Dengue Fever. Players take on the role of either humans or mosquitoes, and must balance protective actions and proactive actions to keep their community safe. Trivia questions provide real-world knowledge on how to stop Dengue in its tracks, and give players an advantage in the competitive game.

Learning outcomes: This game aims to create awareness about the cause and consequences of dengue disease while providing useful information on how to reduce the risk of infection through community mobilisation and organisation.

Facilitator skill level: ★★ Somewhat challenging, needs careful facilitation, check if this is appropriate for the group. This game requires one facilitator to teach the rules, act as a “trivia master,” and debrief the players.

Intended audience: Anyone over the age of 12. This game can be played with communities at risk as an engagement tool for discussion and local decision making on response and prevention of vector-transmitted diseases.

Number of players: 6 per game, more games can be run in parallel

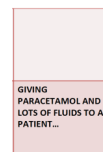
Time needed for gameplay/discussion: 20-40 minutes

Playspace Requirements: A table with room for 3 players to stand on opposing sides

Materials (for 6 players):



1. 50 beans



2. Set of trivia cards



3. Breeding ground screens

Want to know more?



See link to more resources

Facilitation guide



Rules and game play:

Set up and basics:

- Place 12 beans in the centre of the table. These will become mosquito eggs.
- Place three trivia cards face-down next to the pile of beans.
- Place the three Breeding Ground Screens next to each other facing the same direction.
- Divide the players into two teams: 3 Mosquito players and 3 Human players
- Give each player three beans to hide in their hands.
- Set all remaining beans and trivia cards aside.
- Have the players stand on opposite sides of the table. Note: the Breeding Ground Screens should block the sightline of the Human team

How to win this game:

- The Human Team wins by: eliminatng two mosquito breeding grounds.
- The Mosquito Team wins by: eliminating one human player.

How to Play:

After the initial setup, the game follows in three phases:

1. Trivia Showdown: extra beans are awarded or removed based on trivia showdown.
 2. Bean Distribution: the teams make a strategy and secretly divide up their beans.
 3. Action Rounds: the bulk of the gameplay happens here.
- Teams simultaneously select and execute actions until one team is victorious.
 - A final life-saver trivia extends the game and boosts drama.

1. Trivia Showdown

- Before the main action of the game takes place, players will get the opportunity to gain an advantage by answering trivia questions.
- The facilitator should explain to the players that they are competing as teams, Humans vs. Mosquitoes. The beans represent mosquito eggs when they are on the table, and blood when they are in a player's hand. The table begins with 12 mosquito eggs on it, but that will change based on the results of the trivia showdown.
- The facilitator turns over the first trivia card and reads it out loud.
- Both teams listen to the trivia question and then “buzz in” when they think they know the answer.
- All team members must buzz in before the team is allowed to answer.
 - Humans buzz in by slapping an imaginary mosquito on their arms
 - Mosquitos buzz in by flapping their hands like wings. Optional: they can make a buzzing noise while flapping.

Facilitation guide



Examples of trivia cards:

GIVING PARACETAMOL AND LOTS OF FLUIDS TO A PATIENT...

1: correct answer: HUMANS!
Good, paracetamol will fight the fever and fluids to avoid dehydration. (Note: never give aspirin to a dengue patient, it is DANGEROUS!)

CHECKING STANDING WATER EVERY 2 MONTHS...

2: correct answer: MOSQUITOES!
Standing water should be checked much more often as eggs will become fully grown mosquitoes in approx. 10 days

- The answer is The answer is always either “beneficial to humans” or “beneficial to mosquitos.” The team should also be able to answer why the action is beneficial to humans or mosquitoes. You can have a few practice rounds before proceeding.
- If the Human team answers correctly (or the mosquitoes answer incorrectly), remove one bean from the table and set it aside.
- If the Mosquito team answers correctly (or the humans answer incorrectly), add one bean to the pile on the table.
- Repeat this process for the second trivia card.
- After two trivia questions are answered, there will be between 10 and 14 beans on the table, depending on who won the trivia showdown.
- Leave the third trivia card on the table, and explain that it is a “life saver” trivia card, and will be used later (see Life Saver Trivia below).

Dividing Beans

- Now that the number of beans is set, the teams get to secretly divide their beans up. The mosquitoes should place the beans in any configuration they wish behind the three breeding ground screens. Each screen must have at least 1 bean behind it, but there is no limit to the number of beans that may be behind a screen. Beans behind the screens are *mosquito eggs*.
- While the mosquitoes do this, the human players get to divide up their beans the same way, pooling their beans and splitting them between players’ hands. Each human player must have at least one bean in their hand, but there is no limit to the number of beans one player can hold. Beans in players’ hands are *blood*.

2. Action Rounds

- The remainder of the game consists of rounds of players taking actions. Each round the players get to strategise as a team about what individual actions they will take that round. They get 30 seconds to decide which action each team member will take, and what or who will be targeted by their actions.
- There will be a quick succession of rounds. At the end of the 30 seconds, there is a countdown, and all players must choose their actions simultaneously (like in rock, paper, scissors).
- The game continues until either two breeding grounds have been totally cleared (no beans remain in them) or one human player has been eliminated (no beans in hand).

Actions available to players

1. Human Actions:

- **Protect** - The player crosses their arms and touches their shoulders. A human taking this action is not affected by mosquito bites. This symbolises using repellent, mosquito nets, etc.
- **Clear Breeding Ground** - The player points at one of the breeding grounds, and then if possible takes one bean from that breeding ground and adds it to their hands. If a breeding ground has no eggs in it at the end of a round, it is eliminated, and the screen is removed from the table. This represents eliminating areas where mosquitoes can breed.

Facilitation guide



2. Mosquito Actions:

- **Lay Eggs** - The player points at one of the breeding grounds and then takes a bean from their hand and adds it to the breeding grounds as an egg. A mosquito cannot lay eggs in a breeding ground that has already been eliminated.
 - **Bite** - The player points to a human player, then if possible takes one bean from that player and adds it to their own hand. Biting has no effect on a human taking the protect action.
- Actions are selected and revealed simultaneously and then always **resolve in the following order**.
 1. Lay Eggs
 2. Clear Breeding Grounds
 3. Bite
 4. Check for victory



End of the Game

- At the end of each round, if a human player has no beans in their hands, they are eliminated and the mosquitos win. If two breeding grounds have been eliminated, the humans win.
- The 1st time a team would lose the game, you can offer the chance to answer a life saver trivia. This is the last trivia card that was placed face down at the start of the game. The human player who would be eliminated or the mosquito standing in front of the breeding ground that would be eliminated must answer the question with no help from their teammates. If they answer it right, they get to immediately add one bean to their hand or the breeding ground. If they answer it wrong, their team loses.
- Tie: it is possible to eliminate the 2nd breeding ground and a human player on the same turn, ending the game in a double-loss. If this happens, the facilitator should ask 1 final trivia question selected from the top of the deck of trivia cards. Both teams have the opportunity to buzz in just like with the initial trivia showdown. Whichever team wins the tiebreaker trivia wins the game.

Debrief:

Debrief is an important time to discuss what was experienced during gameplay. Questions could include:

1. What insight can you draw from playing this game?
2. In real life, how do you prepare for Dengue risk? Are there any other ways you could prepare yourself or your community?

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