

Purpose: To show how a country's average life expectancy and infant mortality rate relate to its per-capita healthcare expenditure

Activity at a Glance

- Activity type: Card-matching game
- Age range: Middle school–adult
- Number of players: Any number
- Duration: 5 minutes
- Space: Table top
- Facilitation: Useful but not required
- Preparation time: 15 minutes

Overview

Players contrast the per-capita healthcare expenditure, infant mortality rate, and average life expectancy of the US, Mexico, and Afghanistan. For each of these three factors, the game board provides information about one country. The players' task is to make an educated guess about the situation in the other two countries. To give players a reasonable chance of getting a right answer, each factor has four cards associated with it. From these four choices, players select the ones they think represent the situation in the other two countries. For example, given the infant mortality rate in the US, players estimate the infant mortality rate in Mexico and Afghanistan. After filling all the blank spaces on the board with cards, players check their estimates against an answer key.

Core Concepts

Participants will understand that:

- Higher per-capita healthcare expenditures decrease infant mortality and increase life expectancy.
- A high infant-mortality rate lowers a country's average life expectancy.

Materials

Game board, 12 game cards, answer sheet. Optional: data table and clear acrylic table stand.

Preparation

Print the game board, procedure, answer sheet, and game cards. Laminate, if possible. If lamination is impossible, print several copies in case the board or cards are damaged. Fold and tape the procedure and answer sheet into a triangular shape. Hide the answer sheet from view by setting the triangle so it rests on the side with the answer sheet. If you are using the optional data table, print it out and set it in clear acrylic table stand.

continued

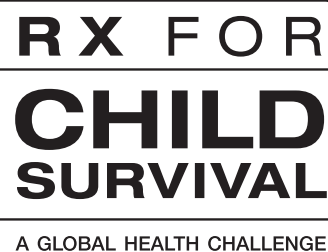
Procedure

1. Ask players to read the information in the shaded square in row 1 (i.e., the per-person healthcare spending in Mexico).
2. Have players examine the four *Healthcare Spending* cards and choose the ones they think represent the average healthcare spending in the US and Afghanistan.
3. Have players set the cards they selected in the appropriate squares on the board.
4. Repeat steps 1–3 with the *Infant Mortality* and the *Life Expectancy* rows.
5. Ask players to check the answer sheet to see how well they matched the cards.
6. Discuss the following questions:
 - What is the general relationship between public health expenditure and life expectancy and infant mortality rates? (*Greater expenditures increase life expectancy and decrease infant mortality.*)
 - Why does a high child-mortality rate lower a country's average life expectancy? (*Each early death pulls down the country's average*)
 - What is the most effective way to boost a country's life expectancy numbers? (*Reduce infant mortality*)
7. Optional: To help people explore the issues raised in the initial activity, copy the *How Life Expectancy and Infant Mortality Are Affected by a Country's Healthcare Investment* data table and set it in a clear acrylic table stand. Encourage players to discuss the questions beneath the chart. The chart and its questions can work as a stand-alone activity, though people will likely understand the concepts better if a facilitator leads them in a discussion.

Answers to the questions beneath the data table

- What country spends the most money per person on health care? (*US*)
- What country has the longest average life expectancy? (*Japan*)
- What country has the lowest infant mortality rate? (*Japan*)
- What country has lowered infant mortality with only a modest healthcare investment? (*Costa Rica*)
- What expenditure level seems to make a significant difference in infant mortality rates? (*There is a major drop in infant mortality in the countries spending at least \$100 per person on health care. The next major drop in infant mortality occurs in countries spending over \$1000 per person.*)
- What expenditure level seems to make a significant difference in life expectancy? (*There is a major increase in life expectancy in the countries spending at least \$100 per person on health care. The next major increase in life expectancy occurs in countries spending over \$1000 per person.*)
- What relationship can you find between a country's average life expectancy and its infant mortality rate? (*The lower the infant mortality rate, the higher the life expectancy. Since life expectancy is calculated by factoring in all deaths, the two numbers are directly related—more young deaths lowers the overall average life expectancy.*)

How a Country's Healthcare Investment Affects Life Expectancy and Infant Mortality



Can you find the pattern?

- What country spends the most money per person on health care?
- What country has the longest average life expectancy?
- What country has the lowest infant mortality rate?
- What country has lowered infant mortality with only a modest healthcare investment?
- What expenditure level seems to make a significant difference in infant mortality rates?
- What expenditure level seems to make a significant difference in life expectancy?
- What is the relationship between a country's average life expectancy and its infant mortality rate?

| Country | Per Capita Health Expenditure in 2001* (in US dollars) | Life Expectancy (Male and female, rounded to nearest year) | Infant Mortality (per 1000 births) |
|---|---|---|---------------------------------------|
| Average healthcare spending is less than \$100 per person | | | |
| Sierra Leone | \$26 | 34 years | 318 deaths |
| Mali | \$30 | 45 years | 229 deaths |
| Afghanistan | \$34 | 43 years | 257 deaths |
| Average healthcare spending is \$100–500 per person | | | |
| Bolivia | \$125 | 63 years | 76 deaths |
| Vietnam | \$134 | 70 years | 37 deaths |
| Nicaragua | \$158 | 70 years | 35 deaths |
| Average healthcare spending is \$500–1000 per person | | | |
| Mexico | \$544 | 74 years | 27 deaths |
| Costa Rica | \$562 | 77 years | 11 deaths |
| Brazil | \$573 | 69 years | 38 deaths |
| Average healthcare spending is more than \$1000 per person | | | |
| United Kingdom | \$1989 | 78 years | 7 deaths |
| Japan | \$2131 | 82 years | 4 deaths |
| Canada | \$2792 | 80 years | 6 deaths |
| United States | \$4887 | 77 years | 8 deaths |

* Includes government and private healthcare funding. This money makes health materials and services available, such as monitoring the incidence of infectious disease, supplying vaccines and appropriate medicines, and providing staffed care facilities.

Getting Your Money's Worth Game



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FACT:



In Mexico, the per-person healthcare spending is \$544.

WHAT DO YOU THINK?

In the United States, the per-person healthcare spending is XXX.

Fill in the blank with a healthcare spending card.

WHAT DO YOU THINK?

In Afghanistan, the per-person healthcare spending is XXX.

Fill in the blank with a healthcare spending card.

WHAT DO YOU THINK?

In Mexico, the infant mortality is XXX.

Fill in the blank with an infant mortality card.

FACT:



In the United States, infant mortality is 8 deaths out of 1000 births.

WHAT DO YOU THINK?

In Afghanistan, the infant mortality is XXX.

Fill in the blank with an infant mortality card.

WHAT DO YOU THINK?

In Mexico, life expectancy is XXX.

Fill in the blank with a life expectancy card.

WHAT DO YOU THINK?

In the United States, life expectancy is XXX.

Fill in the blank with a life expectancy card.

FACT:



In Afghanistan, life expectancy is 43 years.

GETTING YOUR MONEY'S WORTH Game Cards

Cut out cards along dotted lines.



Life Expectancy Card
52 years



Infant Mortality Card
257 deaths per 1000 births



Healthcare Spending Card
\$34 per person



Life Expectancy Card
74 years



Infant Mortality Card
107 deaths per 1000 births




Healthcare Spending Card
\$142 per person



Life Expectancy Card
64 years



Infant Mortality Card
27 deaths per 1000 births



Healthcare Spending Card
\$2792 per person



Life Expectancy Card
77 years



Infant Mortality Card
16 deaths per 1000 births



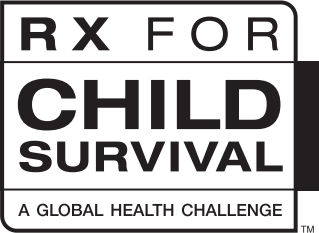
Healthcare Spending Card
\$4887 per person

Tab A



1. Fold page on dotted lines.
2. Tape Tabs A and B together to form a hollow triangle.

How to Play Getting Your Money's Worth



1. Read the healthcare spending information in the shaded square in row 1.
2. Examine the four Healthcare Spending cards. Choose the ones you think represent the average healthcare spending in the US and Afghanistan.
3. Set the two cards you selected in the appropriate squares on the board.
4. Repeat Steps 1–3 with the Infant Mortality and the Life Expectancy rows.
5. Check the answer sheet (on the bottom of this triangle) to see how well you matched the cards.
6. When you are done, turn the triangle so the answer sheet is hidden.

Answer Sheet

| | Mexico | United States | Afghanistan |
|--|-----------|---------------|-------------|
| Healthcare Spending (per person) | \$544 | \$4887 | \$34 |
| Infant Mortality (per 1000 births) | 27 deaths | 8 deaths | 257 deaths |
| Life Expectancy (average) | 74 years | 77 years | 43 years |

Tab B