SHOTS FOR TOTS

Proposal Planning Packet (Brodner)

Go online and look at the data for Three Cities. As a group, select the city where you will establish your clinic.

You must estimate the amount of vaccine needed for this city to provide vaccinations for children from age 0 to age 10 who are living in poverty. Use the information about your city to complete the tasks on this planning sheet,

City: Brodner Population: 634,265

1. About how many children aged 0 to 10 live in the city ($\frac{1}{10}$ of the population)?

63,426.5

2. What is the number of children aged 0 to 10, rounded to the nearest whole number?

63,427

3. What fraction was given in the scenario to show how many families are in poverty?

1/5

4. About how many children aged 0 to 10 are living in poverty in this city?

12,685 2/5

5. What is the number of children living in poverty, rounded to the nearest whole number?

12,685

Show or explain how you found the answer. How do you know that your answer is correct?

I multiplied the population of children by 1/5 to find the number of children in poverty. This answer included a fraction, so I rounded it to the nearest whole number because it represents people. I know this is the right answer because 1/5 is less than 1/4, and 63,427 divided by 4 is over 15856, which is greater than 12,685, so I know my answer is correct.

Vaccinations are only given to children of certain ages. To estimate the number of children at each age, divide the number of children living in poverty by 11, since there are 11 age groups between 0 and 10 years old.

6. How many children living in poverty are in each age group? (Round to the nearest whole number.)

1153

There are eight types of vaccine that the clinics will provide for these children. Each has a different vaccination schedule, so children of different ages need different amounts. For each type of vaccine, you must fill-out a table to show the number of doses needed for children in each age group, the number of children who need to receive that vaccine, and the total number of doses needed for the city in the next year.

Use the following table as a guide to create a table for each type of vaccine.

Sample Table

VACCINE TYPE: POLIO

Children need three doses between birth and 1 year of age.
They need one dose at 5 years. Children do not need any doses after the age of 5.

Vaccine Ages	**Number of children of this age in the city living in poverty**	**Number of doses in this age group**	**Total number of doses needed for the city**
Birth to 1 year	1400	3	4200
5 years	1400	1	1400
Grand total			5600 doses

1. In the second column, record the number of children living in poverty for each age group.

2. In the third column, record the number of doses each child in that age group should receive.

3. Multiply the number of children by the number of doses needed in each year to calculate the total number of doses the city needs for that age group.

4. Finally, add up the numbers in the last column to get the grand total number of doses needed.

Use the data about the city you selected to complete the following tables.

VACCINE TYPE: HEPATITIS B

Children need three doses between birth and 1 year of age.
Children do not need any doses after age 1.

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
Birth to 1 year	1153	3	3459
Grand total			3459

VACCINE TYPE: ROTAVIRUS

Children need two doses between birth and 1 year of age.
Children do not need any doses after age 1.

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
Birth to 1 year	1153	2	2306
Grand total			2306

VACCINE TYPE: DTaP

Children need three doses between birth and 1 year, one dose at 2 years, and one dose at 5 years. Children do not need any doses after age 5.

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
Birth to 1 year	1153	3	3459
2 years	1153	1	1153
5 years	1153	1	1153
Grand total			5765

VACCINE TYPE: PNEUMONIA

Children need three doses between birth and 1 year and one dose at 2 years.
Children do not need any doses after age 2.

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
Birth to 1 year	1153	3	3459
2 years	1153	1	1153
Grand total			4612

VACCINE TYPE: POLIO

Children need three doses between birth and 1 year and one dose at 5 years.
Children do not need any doses after age 5.

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
Birth to 1 year	1153	3	3459
5 years	1153	1	1153
Grand total			4612

VACCINE TYPE: MMR

Children need one dose at 2 years and one dose at 5 years.
Children do not need any doses after age 5.

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
2 years	1153	1	1153
5 years	1153	1	1153
Grand total			2306

VACCINE TYPE: VARICELLA

Children need one dose at 2 years and one dose at 5 years.
Children do not need any doses after age 5.

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
2 years	1153	1	1153
5 years	1153	1	1153
Grand total			2306

VACCINE TYPE: HEPATITIS A

Children need two doses at 2 years.
Children do not need any doses after age 2

Vaccine Ages	Number of children of this age in the city living in poverty	Number of doses in this age group	Total number of doses needed for the city
2 years	1153	2	2306
Grand total			2306