

Teacher Notes

Introduction

Pupils can work on this problem individually or with others.

- They can discuss what information they need from the dual bar charts, and how they will use the information to answer the questions.
- They can share their responses to the questions and compare answers.

This problem deals with a pupil's ability to read dual bar charts and identify the required information they need to respond to questions.

What I know (think)

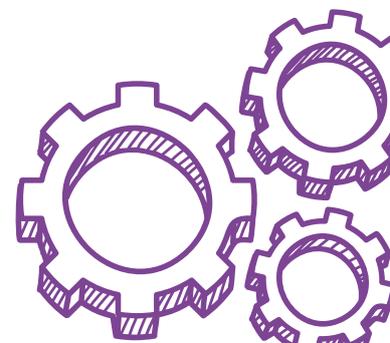
The pupils should know from the given problem:

- There is a statement that 'more and more people in Northern Ireland are requiring emergency care'.
- There is a dual bar chart that displays the number of people attending emergency care departments per 1000 population by age group in September 2015 and September 2016.
- They are asked whether the statement is true.
- The NHS wants to hire extra staff to help with the demands for emergency care.
- They can only hire extra staff for three days during the week.
- There is a dual bar chart that displays the average attendance at emergency care departments in September 2015 and September 2016, by the day of the week.
- They need to decide on which days the extra staff would be most useful.

What I need to know (identify)

Pupils need to identify:

- which data from the dual bar charts will help them respond to the questions;
- if the data presented in Bar Chart 1 shows that more and more people require emergency care;
- which three days would benefit most from extra staff based on the data presented in Bar Chart 2; and
- whether they have all the information they need to respond to the questions.



Emergency Care (Continued)

What I need to do (employ)

Pupils should first use Bar Chart 1 to help determine whether the given statement is true or not:

- They should determine if the bars are higher in 2016 compared to 2015 for each age group.
- They should recognise that even a small increase in bar size is a large number of attendances, as these have been presented as per 1000 population.
- They should note whether there are bigger increases for different age groups.
- They should also recognise the limitations of the dual bar chart when deciding on whether the statement is true or not.

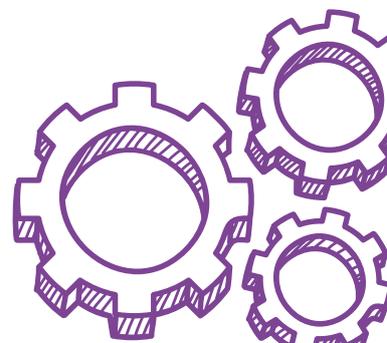
Pupils should then use Bar Chart 2 to help choose which three days the extra staff would be most useful:

- They should look at the height of the bars for each day to interpret which days have the highest demand, as well as which days have shown the biggest increase in demand.
- When making their decision, they should be able to make a case for and against the options.
- They should also recognise the limitations of the dual bar chart when deciding on their three days. They might even suggest what other data should have been presented or used to make the decision.

What I did (review)

Pupils will use self-assessment, peer assessment or teacher feedback to decide whether they have approached the problem as intended.

- Did they understand how to use the dual bar charts?
- Did they compare the heights of each bar for each age group in Bar Chart 1 and comment on the differences depending on age group?
- Did they have trouble choosing the three days when the extra staff would be most useful?
- Did they provide arguments for and against why they chose their days?
- Did they recognise any limitations of the dual bar charts and suggest any improvements?



Emergency Care (Continued)

Curriculum Objectives

This problem should enable pupils to demonstrate their knowledge, understanding and skills through:

Developing pupils as individuals

Explore issues related to Personal Health

- Pupils will investigate incidences of emergency care in Northern Ireland based on the age group and the day of the week.

Thinking Skills and Personal Capabilities

This problem should enable pupils to demonstrate a variety of the following Thinking Skills and Personal Capabilities:

Managing Information

- Ask focused questions
- Select, classify, compare and evaluate information
- Communicate with a sense of audience and purpose

Thinking, Problem-Solving and Decision Making

- Sequence, order, classify and make comparisons
- Justify methods, opinions and conclusions
- Make predictions, examine evidence and distinguish fact from opinion
- Examine options and weigh up pros and cons

Being Creative

- Make new connections between ideas/information
- Learn from and value other people's ideas
- Take risks for learning

Working with Others

- Listen actively and share opinions
- Respect the views and opinions of others and reach agreements using negotiation and purpose

Self-Management

- Seek advice when necessary
- Review learning and some aspect that might be improved
- Organise and plan how to go about a task

Cross-Curricular Skills

This problem should enable pupils to demonstrate a variety of the following Cross-Curriculum Skills:



Using Mathematics

