Handling Data - using health statistics

Contributor's notes

This is a brief game that is linked to using official health statistics.

One way of measuring how prosperous a country is, is to measure the Infant Mortality Rate and compare it with others. The Infant Mortality Rate like most demographic rates is always per 1,000 head of population. (This introduces students to a new way of measuring). Therefore an Infant Mortality Rate of say 2.28 means that for every 1,000 live births 2.28 babies will not survive to be a year old.

The game is played by giving a set of 50 cards (see pages 2-6) to the students who then have to put them in order or group them under the headings *lowest*, *middle ranking*, *highest*.

Then give them the answer sheet and compare what they thought with the official OECD figures.

This provokes discussion and can be used to show how official statistics can be used to back up / refute arguments. The interesting one is the relative position of Cuba and the USA.

You can extend this activity in many ways. For example, getting averages and range for a group of countries or putting the rates of European countries in a graph / bar chart. Get the students to decide the best way to present the data.

Students can also look on the internet to check the latest figures and see if they have changed. If they can find out how many births there are in the UK each year they can compare how many more / less babies will survive in two given years and calculate the percentage increase or decrease.

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Main Curriculum References

(Exact links will vary with the learner group and how the resource is used or extended).

Handling Data

Level 1

HD1/L1.1 - Extract and interpret information (e.g. in tables, diagrams, charts and line graphs).
HD1/L1.2 - Collect, organise and represent discrete data in tables, charts, diagrams, line graphs
HD1/L1.3 - Find the arithmetical average (mean) for a set of data.
HD1/L1.4 - Find the range for a set of data

Level 2

HD1/L2.1 - Extract discrete and continuous data from tables, diagrams, charts and line graphs
HD1/L2.2 - Collect, organise and represent discrete and continuous data in tables, charts, diagrams, line graphs
HD1/L2.3 - Find the mean, mode and median, and use them as appropriate to compare two sets of data
HD1/L2.4 - Find the range and use it to describe the spread within sets of data

Singapore	**Sweden**
Hong Kong	**Japan**
Iceland	**Finland**
Norway	**Malta**
Czech Republic	**Andorra**

Germany	**France**
Macau	**Switzerland**
Spain	**Slovenia**
Denmark	**Austria**
Australia	**Belgium**

Liechtenstein	**Canada**
Luxembourg	**Netherlands**
Portugal	**United Kingdom**
Ireland	**Monaco**
Greece	**San Marino**

New Zealand	**Aruba**
Italy	**Cuba**
Taiwan	**United States**
Croatia	**Lithuania**
South Korea	**Israel**

Cyprus	**Slovakia**
New Caledonia	**Reunion**
Estonia	**Virgin Islands**
Puerto Rico	**Cayman Islands**
French Polynesia	**Hungary**

World Wide Mortality Rates

Source OECD (Organisation for Economic Co-operation and Development)
http://www.oecd.org/

Rank	Country	Value	Unit
1.	Singapore	2.28	deaths/1,000 live births
2.	Sweden	2.77	deaths/1,000 live births
3.	Hong Kong	2.97	deaths/1,000 live births
4.	Japan	3.28	deaths/1,000 live births
5.	Iceland	3.31	deaths/1,000 live births
6.	Finland	3.59	deaths/1,000 live births
7.	Norway	3.73	deaths/1,000 live births
8.	Malta	3.94	deaths/1,000 live births
9.	Czech Republic	3.97	deaths/1,000 live births
10.	Andorra	4.05	deaths/1,000 live births
11.	Germany	4.20	deaths/1,000 live births
12.	France	4.31	deaths/1,000 live births
13.	Macau	4.39	deaths/1,000 live births
14.	Switzerland	4.43	deaths/1,000 live births
15.	Spain	4.48	deaths/1,000 live births
16.	Slovenia	4.50	deaths/1,000 live births
17.	Denmark	4.63	deaths/1,000 live births
18.	Austria	4.68	deaths/1,000 live births
19.	Australia	4.76	deaths/1,000 live births
20	Belgium	4.76	deaths/1,000 live births
21.	Liechtenstein	4.77	deaths/1,000 live births
22.	Canada	4.82	deaths/1,000 live births
23.	Luxembourg	4.88	deaths/1,000 live births
24.	Netherlands	5.11	deaths/1,000 live births
25.	Portugal	5.13	deaths/1,000 live births

World Wide Mortality Rates (continued)

Rank	Country	Value	Unit
26.	United Kingdom	5.22	deaths/1,000 live births
27.	Ireland	5.50	deaths/1,000 live births
28.	Monaco	5.53	deaths/1,000 live births
29.	Greece	5.63	deaths/1,000 live births
30.	San Marino	5.85	deaths/1,000 live births
31.	New Zealand	5.96	deaths/1,000 live births
32.	Aruba	6.02	deaths/1,000 live births
33.	Italy	6.07	deaths/1,000 live births
34.	Cuba	6.45	deaths/1,000 live births
35.	Taiwan	6.52	deaths/1,000 live births
36.	United States	6.63	deaths/1,000 live births
37.	Croatia	6.96	deaths/1,000 live births
38.	Lithuania	7.13	deaths/1,000 live births
39.	Korea, South	7.18	deaths/1,000 live births
40.	Israel	7.21	deaths/1,000 live births
41.	Cyprus	7.36	deaths/1,000 live births
42.	Slovakia	7.62	deaths/1,000 live births
43.	New Caledonia	7.89	deaths/1,000 live births
44.	Reunion	7.95	deaths/1,000 live births
45.	Estonia	8.08	deaths/1,000 live births
46.	Virgin Islands	8.21	deaths/1,000 live births
47.	Puerto Rico	8.37	deaths/1,000 live births
48.	Cayman Islands	8.41	deaths/1,000 live births
49.	French Polynesia	8.61	deaths/1,000 live births
50	Hungary	8.68	deaths/1,000 live births