# **HUMAN WELLBEING**

# Human Wellbeing at a range of scales

Gretchen Wiseman, Central Coast Grammar School

# **A. MAPPING HUMAN WELLBEING AT A GLOBAL SCALE**

#### Collect the data to create a choropleth map

1. Use CIA World Factbook to collect data and fill in the table below:

|           | Life<br>Expectancy<br>(years) | Infant<br>Mortality Rate<br>(per 1000 live<br>births | Birth Rate<br>(per 1000<br>population) | Obesity – adult<br>prevalence<br>rate (%) | Literacy (%) | GDP – per<br>capita (PPP) |
|-----------|-------------------------------|--|--|---|--------------|---------------------------|
| Australia |                               |  |  |   |              |                           |
| India     |                               |  |  |   |              |                           |
| Norway    |                               |  |  |   |              |                           |
| Sudan     |                               |  |  |   |              |                           |
| Peru      |                               |  |  |   |              |                           |
| Iran      |                               |  |  |   |              |                           |
| Canada    |                               |  |  |   |              |                           |
| Indonesia |                               |  |  |   |              |                           |

2. Use the data collected above to decide on differing levels for each indicator on the table below:

|        | Life<br>Expectancy<br>(years) | Infant<br>Mortality Rate<br>(per 1000 live<br>births | Birth Rate<br>(per 1000<br>population) | Obesity – adult<br>prevalence<br>rate (%) | Literacy (%) | GDP – per<br>capita (PPP) |
|--------|-------------------------------|--|--|---|--------------|---------------------------|
| Low    |                               |  |  |   |              |                           |
| Medium |                               |  |  |   |              |                           |
| High   |                               |  |  |   |              |                           |

- 3. Choose 2 indicators to create a choropleth map using **the world map in the Appendix**. On the map you will need a key with high, medium and low for each indicator [you could use colour for one and shading/patterns for the other]. Remember BOLTSS.
- 4. Explain your choropleth map. Hint: consider interconnections between indicators.

NOTE: Worksheets for these activities, including the base maps and tables, are in the Appendix with this edition on the GTANSW & ACT website.

### **B. SPATIAL VARIATIONS in HUMAN WELLBEING WITHIN INDIA**

- 1. Colour the **flag of India**.
- 2. On the map of India label the state and territories of India, and the cities of Mumbai, New Delhi and Kolkata.
- 3. **Complete the table** with data for the states of Bihar and Kerala. Bihar https://globaldatalab.org/profiles/region/INDr103/ Kerala https://globaldatalab.org/profiles/region/INDr110/
- 4. Represent the statistics in a graph using a tool such as Excel.
- 5. **Collect media reports** on inequality in India. On a copy of the article highlight references to inequality and annotate the nature of the inequality e.g., housing, education, health care.

|   | Kerala value | Bihar value                           |
|---|--------------|---------------------------------------|
| Level of development  | Value        | Value                                 |
| Subnational Human Development Index                                 |              |                                       |
| International Wealth Index (IWI)                                    |              |                                       |
| Gross National Income per capita (\$)                               |              |                                       |
| Poverty   | Value        | Value                                 |
| Percentage poor households (IWI value under 70)                     | 1            |                                       |
| Percentage poorer households (IWI value under 50)                   |              |                                       |
| Percentage poorest households (IWI value under 35)                  |              | i i i i i i i i i i i i i i i i i i i |
| Educational attendance  | Value        | Value                                 |
| Educational attendance children aged 6-8 (%)                        |              |                                       |
| Educational attendance children aged 15-17 (%)                      |              |                                       |
| Position of women   | Value        | Value                                 |
| Total fertility rate  |              |                                       |
| Mean age at first marriage of women aged 20-50                      |              | 11 M                                  |
| Mean age at first birth of women aged 20-50                         |              |                                       |
| Position of children  | Value        | Value                                 |
| Infant mortality rate   |              |                                       |
| Percentage underweight children                                     |              |                                       |
| Percentage overweight children                                      |              |                                       |
| Asset ownership   | Value        | Value                                 |
| Percentage households with a TV                                     |              |                                       |
| Percentage households with a refrigerator                           |              |                                       |
| Percentage households with a washing machine                        |              |                                       |
| Percentage households with a motorbike                              |              |                                       |
| Access to public services   | Value        | Value                                 |
| Percentage of households with piped water                           | 1.4          |                                       |
| Percentage of households with electricity                           |              |                                       |
| Percentage households with a phone                                  |              |                                       |
| Population  | Value        | Value                                 |
| Percentage population in urban areas                                |              | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Quality of housing  | Value        | Value                                 |
| Percentage households with flush toilet                             |              |                                       |
| Percentage households with a natural floor (earth, sand, dung etc.) |              |                                       |
| Percentage households with three or more sleeping rooms             |              |                                       |
| Percentage households cooking on wood, straw, grass, dung etc.      |              |                                       |

### **C. VARIATIONS IN HUMAN WELLBEING IN AUSTRALIA: EDUCATION**

There are spatial variations in Human Wellbeing within countries. For this task you are to choose **ONE area** from List **A** and compare it to **ONE area within List B**.

| List A                   | List B             |
|--------------------------|--------------------|
| Ceduna, SA               | Berrimah, NT       |
| Moree, NSW               | Portsea, VIC       |
| Charleville, QLD         | Toorak, VIC        |
| Buloke, VIC              | Cottesloe, WA      |
| Croydon-Ethridge, QLD    | Bellevue Hill, NSW |
| Yuendumu – Anmatjere, NT | North Adelaide, SA |
| Halls Creek, WA          | Ascot, QLD         |
| Anindilyakwa, NT         | Sandy Bay, TAS     |
| Orbost, VIC              | Balmain, NSW       |
| Fairfield, NSW           | Forrest, ACT       |

NB, ABS Quickstats search using Statistical area (SA2).

Nelson Mandela once said, "Education is the most powerful weapon which you can use to change the world." Education is the key to eliminating gender inequality, to reducing poverty, to creating a sustainable planet, to preventing needless deaths and illness, and to fostering peace.

The main focus is a **comparison** of education in your two areas. Consider:

- Collecting statistical data on education from reputable sources eg, a good place to start would be the Australian Bureau of Statistics both Quickstats and the Socio-Economic Indexes for Areas (SEIFA).
- Dig deeper into the factors (causes) that hinder education (why can't all children access school? eg, domestic violence, disability, hunger, distance to school)
- Research rates of tertiary education eg, TAFE or university. How does tertiary studies link to income levels?
- Education scoring eg, HSC and NAPLAN results

#### Part 1: Collecting Data

For your TWO areas, you must collect data that will best represent education in your areas. You must show 10 different statistics in the table below:

#### Part 2: Analyse the Data

You will now use the data you collected in Part 1 to analyse the difference between the two areas in 700 words.

NOTE: Worksheets for these activities, including tables, are in the Appendix with this edition on the GTA NSW & ACT website.

|    | Name of statistic: | From List A —<br>Name: | From List B —<br>Name: | Source: |
|----|--------------------|------------------------|------------------------|---------|
| 1  |                    |                        |                        |         |
| 2  |                    |                        |                        |         |
| 3  |                    |                        |                        |         |
| 4  |                    |                        |                        |         |
| 5  |                    |                        |                        |         |
| 6  |                    |                        |                        |         |
| 7  |                    |                        |                        |         |
| 8  |                    |                        |                        |         |
| 9  |                    |                        |                        |         |
| 10 |                    |                        |                        |         |

# **HUMAN WELLBEING AT A RANGE OF SCALES**

## **D. SPATIAL VARIATIONS IN WELLBEING: CENTRAL COAST NSW**

#### A. Collect data to complete figure 1 and figure 2

#### B. Interpret the data and communicate your findings

#### Use the data to answer the following questions:

- 1. Using data explain the differences in EDUCATION across the Central Coast.
- 2. Use the interactive map (https://www.smh.com.au/education/where-you-live-is-determining-yourschool-s-naplan-score-20181126-p50ibq.html) from Macquarie University to identify areas that:
  - a. Perform above the average for Year 5 writing results
  - b. Perform below the average for Year 5 writing results
- 3. Using data explain the differences in EMPLOYMENT across the Central Coast.
- 4. Using data explain the differences in INCOME across the Central Coast.
- 5. Using data explain the differences in HOUSEHOLD mortgage and rent repayments across the Central Coast.
- 6. Outline any general trends you can identify between the different categories of human wellbeing.

#### **REFER TO FIGURE 3: Indigenous population on the Central Coast**

- 7. Using statistics describe the profile of indigenous males and females aged 0-29 years as compared to the non-indigenous profile.
- 8. Using statistics describe the profile of indigenous males and females aged 30 years + as compared to the non-indigenous profile.

#### **REFER TO FIGURE 4: Aboriginal**

9. Refer top Figure 2 Describe the differences in average weekly household incomes between Aboriginal and "others" on the Central Coast.

#### **REFER TO FIGURE 5: Aboriginal hospitalisations**

- 10. Using data, describe the hospitalisations in our region for Aboriginal peoples.
- 11. Make a judgement based on statistics collected about human wellbeing on the Central Coast.



Image source: Rob Freijs, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=46568109

#### Figure 1: Census data

#### Complete the data table using this link -

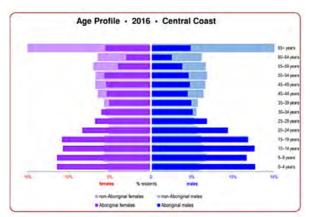
https://www.abs.gov.au/websitedbs/censushome.nsf/ home/quickstats?opendocument&navpos=220

#### Figure 2: Income variation: Macquarie University Interactive map

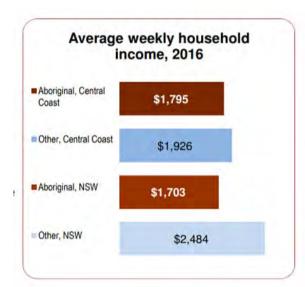
Use the interactive map from Macquarie University to complete the table (https://www.smh.com.au/ education/where-you-live-is-determining-your-schools-naplan-score-20181126-p50ibq.html)

| 1.00              | % of income earners in top income bracket (\$3000/week) |  |  |
|-------------------|---|--|--|
| Central Coast     |   |  |  |
| Hornsby           |   |  |  |
| Mosman            |   |  |  |
| Parramatta        |   |  |  |
| Fairfield         |   |  |  |
| Waverly           |   |  |  |
| Southerland Shire |   |  |  |

#### Figure 3: Population profiles



#### Figure 4: Household income



|   | Woy<br>Woy-<br>Blackwall<br>(SA2) | Terrigal-<br>North<br>Avoca<br>(SA2) | The<br>Entrance<br>(SA2) | Gorokan-<br>Kanwal-<br>Charmhayen<br>(SA2) | Monsset-<br>Cooranbong<br>(SA2) | NSW % | Australia<br>% |
|---|-----------------------------------|--------------------------------------|--------------------------|--|---------------------------------|-------|----------------|
| Age   |                                   |                                      | 1                        |  |                                 |       |                |
| -0-14 years<br>- 80 years +<br>Education                    |                                   |                                      |                          |  |                                 |       |                |
| University or<br>fertiary institution<br>Level of education |                                   |                                      |                          |  | 2                               |       |                |
| Bachelor's degree   |                                   |                                      |                          |  |                                 |       |                |
| Year 12   |                                   |                                      |                          |  |                                 |       |                |
| Year 10   |                                   |                                      |                          |  |                                 |       |                |
| Year 9 or below   |                                   |                                      |                          |  |                                 |       |                |
| Employment  |                                   |                                      |                          |  |                                 |       |                |
| 35 hours or more  |                                   |                                      | -                        |  |                                 |       | -              |
| Professionals   | -                                 |                                      |                          |  |                                 |       | -              |
| Managers  |                                   |                                      | -                        |  |                                 |       |                |
| Technicians/<br>Trades<br>Labourer                          |                                   |                                      |                          |  |                                 |       |                |
| Clerical' Admin   |                                   |                                      |                          |  |                                 |       | -              |
| Top industry of<br>employment<br>(Name of industry)         |                                   |                                      |                          |  |                                 |       |                |
| Income  |                                   |                                      | 1                        |  | 1                               |       |                |
| Personal  |                                   |                                      | 1                        |  |                                 |       | 1              |
| Family  |                                   |                                      |                          |  |                                 | 1     |                |
| Employment<br>status- both not<br>working                   |                                   |                                      |                          |  |                                 |       |                |
| Household income<br>- (Sh50/week<br>- >53000/week           |                                   |                                      |                          |  |                                 |       |                |
| Household   |                                   |                                      |                          | 1  |                                 |       |                |
| Median monthly<br>mortgage<br>repayments                    |                                   |                                      |                          |  | ] [                             |       |                |
| Median weekly   |                                   |                                      | 1                        |  | 7                               |       | 1              |

#### Figure 5: Hospitalisations

