This briefing provides a regional analysis of how charities fund research in the UK. It is derived from the AMRC research portfolio database for 2011, which allows a detailed analysis of the research activity of our members.

**Research spend in 2011**
AMRC member charities spent more than £1.1bn on research in the UK in 2011, excluding capital spend (funding for buildings and large equipment).

**The research landscape in 2011**
Medical research charities have consistently spent more than £1bn on research each year since 2008. In 2011, this represented more than one third of public spending on medical research (defined as charity, MRC and NIHR research expenditure).

**Figure 1:**

**UK public spending on research in 2011**

![Pie chart showing AMRC £1,1bn, MRC £798m, and NIHR £921m](chart.png)

Source: AMRC research expenditure database

**NOTES:**
1. AMRC expenditure: the AMRC research expenditure database
   MRC expenditure: Medical Research Council annual report
   NIHR expenditure: National Institute for Health Research annual report
   Research spending by health departments in Scotland, Wales and Northern Ireland not included.
2. Figures shown relate to all research spend within the UK, excluding capital expenditure.
3. AMRC collects two types of data from its members: research expenditure (money spent in a financial year as reflected in the charities annual accounts) and research portfolio (information on every grant awarded in a calendar year). This current analysis is based on the 2011 portfolio and research expenditure up to 2011. AMRC has also published an analysis of UK research expenditure in 2012.
Where charities spend money on research in the UK remains fairly steady

The proportion of spending in each region within the UK has been approximately constant since 2008.

Between 2008-11, charity spending on research in:
- England consistently represented 85% of their UK spend each year.
- Northern Ireland consistently represented 0.5-0.6% of their UK spend each year.
- Scotland consistently represented 12-13% of their UK spend each year.
- Wales consistently represented 1.5-2% of their UK spend each year.

Figure 2:

Where charities have funded research in the UK

![Bar chart showing the proportion of spending in each region within the UK between 2008 and 2011.]

Source: AMRC research portfolio database

NOTES:

1. This data shows the proportion of charitable UK research funding spent each year for each region of the UK between 2008 and 2011.
2. This data comes from the AMRC research portfolio database; a database of grants awarded by member charities.
3. The AMRC research portfolio database holds information on individual grants awarded by each member charity. This data is provided every year by AMRC members and identifies the institutions holding awards, types of grants and types of research. This data does not include all funding on capital projects, but does include information on awards to non-UK institutions. AMRC charities provided abstracts of the awards for 2011, allowing AMRC to code the portfolio using the HRCS coding system (http://www.hrcsonline.net).
How does charitable spend compare to population?

Figure 3 compares the proportion of charity research spend in each region to the proportion of the UK population living there. This shows that the proportion of charity research spend in Northern Ireland and Wales is lower than the proportion of the UK population residing there. Charity research spend in England is in line with England’s proportion of the UK population, however Scotland receives a greater proportion of charity research spend than the proportion of the UK population living there might suggest.

Scotland’s ability to secure around 13% of UK charitable funding with 8% of the population reflects its scientific specialism and the high concentration of Higher Education Institutes located there, including five research active medical schools.

Figure 3:

How does charitable spend compare to population?

Source: AMRC research portfolio database; external references in notes below

NOTES:

1. Figure 3 shows regional proportions of research spend by AMRC members 2011 compared to their population.
2. This data comes from:
   The AMRC research portfolio database; a database of grants awarded by member charities.
Spending is mobile
Research is international and medical research charities are focused on funding the highest quality science wherever it is. We are observing a growing trend of members spending overseas.

Currently, the UK has both scientific strength and the advantage of many effective nationwide research networks and processes meaning overseas spend remains a relatively small proportion of total charity research spend. However while UK spend remains relatively constant (figure 2), the increase in proportion of overseas spend (figure 5) suggests that charities are increasingly likely to look more widely to fund the best research and get the most value for every pound that they invest. This could reflect limits in UK capacity or greater opportunities to work with international collaborators abroad.

Figure 4:

NOTES:
1. This data shows the proportion of all charity research spend overseas between 2008 and 2011.
2. Overseas data comes from the AMRC research expenditure database; excludes capital research and is expressed as a proportion of total charity spend.
3. UK data comes from the AMRC research portfolio database; a database of grants awarded by member charities and is a proportion of UK charity research spend.
**Investment across the UK in 2011**

In the UK, charities fund research activities – projects and programmes of work. They also invest in research capacity, funding people and research infrastructure.

The proportions invested in different types of research are relatively consistent across UK regions. However Northern Ireland and Wales do receive a notably higher percentage of funding for projects and less for infrastructure than England and Scotland. This may be due to the lower proportion of charity research funding in these areas; in general charities are less likely to consider large grants such as funding a unit (which is classified as infrastructure in this analysis) unless they have already committed a substantial investment in an area.

**Figure 5:**

**Charities fund all types of research- investment across the UK in 2011**

![Graph showing the distribution of funding by region for different types of research.]

Source: AMRC research portfolio database

**NOTES:**

1. The data comes from the AMRC member portfolio database, for grants active in the UK during 2011.
2. This data shows the proportion of charity research spend for research type categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Research types included</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>Fellowship, Intercalated BSc, Lectureship, Postgraduate studentship, Senior Personal support, Travel</td>
</tr>
<tr>
<td>Projects</td>
<td>Clinical trial, Programme, Project</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Equipment under £50k, Infrastructure- buildings, Infrastructure- Other (inc. equipment over £50k), Meetings, Unit</td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
</tr>
</tbody>
</table>
Which health areas receive charity funding across the UK?

Looking only at grants awarded in 2011, these have been categorised into health areas for each region of the UK.

Considering the UK as a whole, cancer research is the top health area for charity funded research in all four regions receiving 22.9% of all UK charitable research spend. Cardiovascular research is among the top three health areas receiving funding in most regions, with 14.8% of total UK charitable research spend.

Below is a breakdown of the health areas that received funding in each of the UK regions in 2011, focusing on the categories that received the most funding in each region.

**England**

In England (figures 7 and 8), every health category received charity grants in 2011, demonstrating a wide range of health research. The three areas receiving the highest proportion of charity funding in England are cancer, cardiovascular and generic health relevance (defined as research that applies to the general health and well being of people, and basic research without a specific disease focus).

England receives a higher proportion of funding for research in the category generic health relevance than any other region (14.1%). The proportion of cardiovascular research is also highest in England, at 15.8% this is higher than the UK as a whole (14.8%).

Figure 6:

Which health areas receive funding in England?

Source: AMRC research portfolio database
Figure 7:

Health areas receiving the highest proportions of charity funding in England 2011

Source: AMRC research portfolio database
Northern Ireland

In Northern Ireland (figures 9 and 10), the three areas receiving the highest proportion of charity grants in 2011 are cancer, cardiovascular and eye research.

Cancer research receives almost a third of Northern Ireland’s total charitable funding (31.2%), a higher proportion than any other UK region. There are a number of possible explanations for this. Firstly, there are two AMRC cancer specific members based in Northern Ireland, and Queen’s University Belfast has both a Centre for Cancer Research & Cell Biology and the Northern Ireland Cancer Trials Centre. However, there are a number of cancer charities within the UK, and similar specialist cancer research centres are prevalent across the regions. Another explanation may be that charity research funding is not as broadly spread across health categories as in other regions of the UK, meaning the proportion of spend in Northern Ireland can be more concentrated for conditions such as cancer.

Eye research also receives a higher proportion of charity funding in Northern Ireland (12.1%) than anywhere else in the UK, and is considerably higher than the UK as a whole (1.6%). A possible explanation for this is the Centre for Vision and Vascular Science based at Queen’s University Belfast.

Figure 8:

**Which health areas receive funding in Northern Ireland?**

Source: AMRC research portfolio database
Health areas receiving the highest proportions of charity funding in Northern Ireland 2011

Source: AMRC research portfolio database
Scotland
In Scotland (figures 11 and 12), the three areas receiving the highest proportion of charity grants in 2011 are cancer, infection and generic health relevance.

Scotland receives the greatest proportion of charity grants for infection research of any UK region (21.5%), which is a great deal higher than the proportion invested in infection research across the UK as a whole (9.8%). Further analysis has revealed that the University of Dundee received the largest proportion of AMRC charity funding for infection research in the UK and overseas in 2011 (10.5%). This is likely influenced by the Wellcome Trust Dundee Drug Discovery Unit situated in Dundee.

Figure 10:

Which health areas receive funding in Scotland?

![Bar chart showing the proportion of charity funding in Scotland by health area.]

Source: AMRC research portfolio database

Figure 11:

Health areas receiving the highest proportions of charity funding in Scotland 2011

![Bar chart showing the highest proportions of charity funding by health area in Scotland.]

Source: AMRC research portfolio database
Wales
In Wales (figures 13 and 14), the three areas receiving the highest proportion of charity grants are cancer, cardiovascular and generic health relevance, demonstrating a similar pattern to England.

Additionally, mental health research receives a much higher proportion of charity funding in Wales (9.4%) than any other region, and is considerably higher than the UK as a whole (3.2%). This may reflect research funded at the neuroscience and mental health research institute at the University of Cardiff, as well as a brain imaging centre in their psychology department.

Figure 12:

Which health areas received funding in Wales 2011?

Source: AMRC research portfolio database

Figure 13:

Health areas receiving the highest proportions of charity funding in Wales 2011

Source: AMRC research portfolio database
**UK overall**

Figure 15 shows the five health areas that received the highest proportion of charity research funding in the UK as a whole in 2011, and two areas – eye and mental health – which received a high proportion of research funding in specific regions. This has been broken down by region, showing the proportion of charity research spend in each region invested in each health area.

Figure 14

**Health areas receiving the highest proportions of charity funding in the UK overall in 2011* with regional breakdown**

![Diagram showing health areas receiving the highest proportions of charity funding in the UK overall in 2011 with regional breakdown]

Source: AMRC research portfolio database

---

**NOTES:**

1. The AMRC research portfolio database holds data information on individual grants awarded by each member charity. This data is provided every year by AMRC members and identifies the institutions holding awards, types of grants and types of research. This data does not include all funding on capital projects, but does include information on awards to non-UK institutions. In 2013, AMRC charities provided abstracts of the awards, allowing AMRC to code the portfolio using the HRCS coding system ([http://www.hrcsonline.net/](http://www.hrcsonline.net/)).

2. This analysis is based on awards that started during 2011, and provides an estimate of the proportion of expenditure within that calendar year.

3. Some research grants (0.04% of total research expenditure) were outside the HRCS coding systems (ie concerned non-health related research). Some grants (0.8% of total research expenditure) could not be coded due to lack of information. A number of AMRC member charities did not provide information on awards that started in 2011, and so are not represented in this analysis (1.7% of UK research expenditure as calculated by their 2011 research expenditure in the research expenditure database).