



Transforming
mental health
through research

A large, light yellow silhouette of the United Kingdom is centered on the page, serving as a background for the text. The map includes the main landmass of Great Britain and the island of Ireland.

UK Mental Health Research Funding 2014–2017

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Executive summary

The political, public and media focus on mental health has grown rapidly in recent years. Parity of esteem for mental health is now a commonly stated policy goal, with comprehensive plans announced to transform mental health support in the health service, schools, workplaces and communities. Awareness-raising campaigns such as Time to Change and Heads Together have seen high-profile individuals – from members of the Royal Family to sports stars and politicians – talking openly about mental illness. Research suggests the stigma surrounding mental health is finally starting to diminish.

Yet, against this backdrop of welcome and long overdue change, one piece of the puzzle that's key to transforming mental health for future generations is not seeing comparable progress.

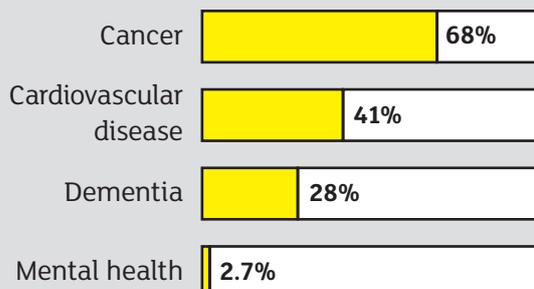
Mental health research remains chronically underfunded, both in terms of the burden of mental illness and in comparison to physical health conditions.

In 2015, MQ compiled a comprehensive data set on mental health-related research grants awarded by major funders in the UK between 2008 and 2013 – the first of its kind. It showed just how little money is invested in mental health research – and where it's spent, informing direction for further research to ensure funding is spent effectively.

Just £9 is spent on research per year, for each person affected by mental illness.



Public donations as a percentage of research funding



Four years later, this second analysis looks at mental health research funding in the UK from 2014 to 2017. Building on the findings of our last report to present the most detailed picture of mental health research to date, it shows that:

- **The total expenditure on mental health research from 2014–2017 was £497 million, on average £124 million per year.** These figures translate to just over £9 spent on research per year, for each person affected by mental illness. By comparison, £612 million is spent on cancer research each year, which translates to £228 per person affected – or 25 times more per person.
- **Funding for mental health research has remained flat over the ten-year period 2008–2017.**
- **Public donations account for 2.7% of mental health research funding – which, compared to other conditions, is very low.** In cancer research, spending by fundraising charities makes up 68% of funding. In cardiovascular disease it is 41% and in dementia it's 28%.
- **Studies into the prevention, diagnosis, and treatment of mental health conditions are significantly underfunded.** Only 3.9% of funding goes towards prevention of mental illness. Almost half of all funding for mental health research is spent on underpinning research and aetiology.
- **26% of money spent on mental health research goes towards projects on children and young people, despite 75% of mental illness beginning before the age of 18.¹**

We know that mental health research can deliver better outcomes and truly transform lives. Advances in psychological treatments have improved the futures of hundreds of thousands of people with conditions including depression, anxiety, PTSD and eating disorders. New insights from data science are enabling us to better tackle major challenges like early mortality in severe mental illness, and suicide and self-harm. Developments in genomics, stem cell biology, neuroscience and the social sciences have identified key risk factors for mental health conditions. And online mental health interventions are increasingly being recognised as an effective treatment and prevention option for mental health care.

Mental health research also provides good value for money. Data has shown that for every £1 invested in mental health research in the UK, around 37p is returned to the UK in health and GDP gains each year.²

Mental illness affects 13.5 million people in the UK every year,^a and its impact on individuals, families and the UK economy is enormous – an estimated £100 billion a year.² We hope this analysis will act as a catalyst, informing research policies and inspiring increased collaboration and coordination between public research funders, universities, charities and the wider voluntary sector, which was called for in the UK government's 2018 Framework for Mental Health Research. Through this report, we want to fuel ambition for change.

It's time to turn the hugely positive increase in attention on this issue into a public movement for action – driven by a recognition that research must play a central role in redefining the future of mental illness.

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^a The number of people affected by any mental health condition was calculated using 23% prevalence for the population aged 16 and above (2009 Adult Psychiatric Morbidity Survey¹³), as well as prevalence figures for younger age groups given in the Mental Health of Children and Young People 2017 Survey,¹⁴ and applying these to Office for National Statistics Population estimates for the UK in 2017.¹⁵ In our previous report we estimated that 15 million people were affected by mental illness in the UK. The difference is due to more precise prevalence statistics for children and young people being available.

What is mental health research?



Mental health research is key to improving understanding, transforming treatments and ultimately making mental illness preventable.

What is mental health research?

Mental health research is extremely complex. A variety of mental health conditions affect different people in different ways, while the causes of mental illness are diverse – influenced by a range of factors including economic status, inequality, trauma, hormones and genetics.

For this reason, no single scientific discipline can tackle mental illness alone. At MQ, we bring together an unusually wide range of scientific disciplines and methods to advance our understanding of mental health – from neuroscience and genetics, to psychiatry and social sciences. This interdisciplinary approach can also help us grapple with important questions about how mental illness may affect other physical conditions, like pain, infections, diabetes and cancer – and vice versa.

Once an intervention has been developed, it needs to be thoroughly tested to find out how feasible, acceptable and useful it is. Research is then needed to find the best way to deliver it to those who could benefit and also has an important role to play in making sure evidence is adopted in practice, so that improvements reach the people they are designed to help.

We believe it is vital to invest in all kinds of mental health research, in order to build a 360-degree understanding of mental illness and treatment approaches. To truly transform mental health we need researchers, clinicians, practitioners and those who are affected to work together. Only then can we get to a position where mental illness is understood, effectively treated and ultimately prevented.

Setting the scene: UK mental health research funding 2014–2017

The table below represents all mental health research grants funded in the UK between 2014 and 2017.

Table 1. Total UK funding for mental health research by year (nominal amounts)

2014	2015	2016	2017	Yearly average
£131.5 million	£117.9 million	£130.6 million	£117.1 million	£124.3 million

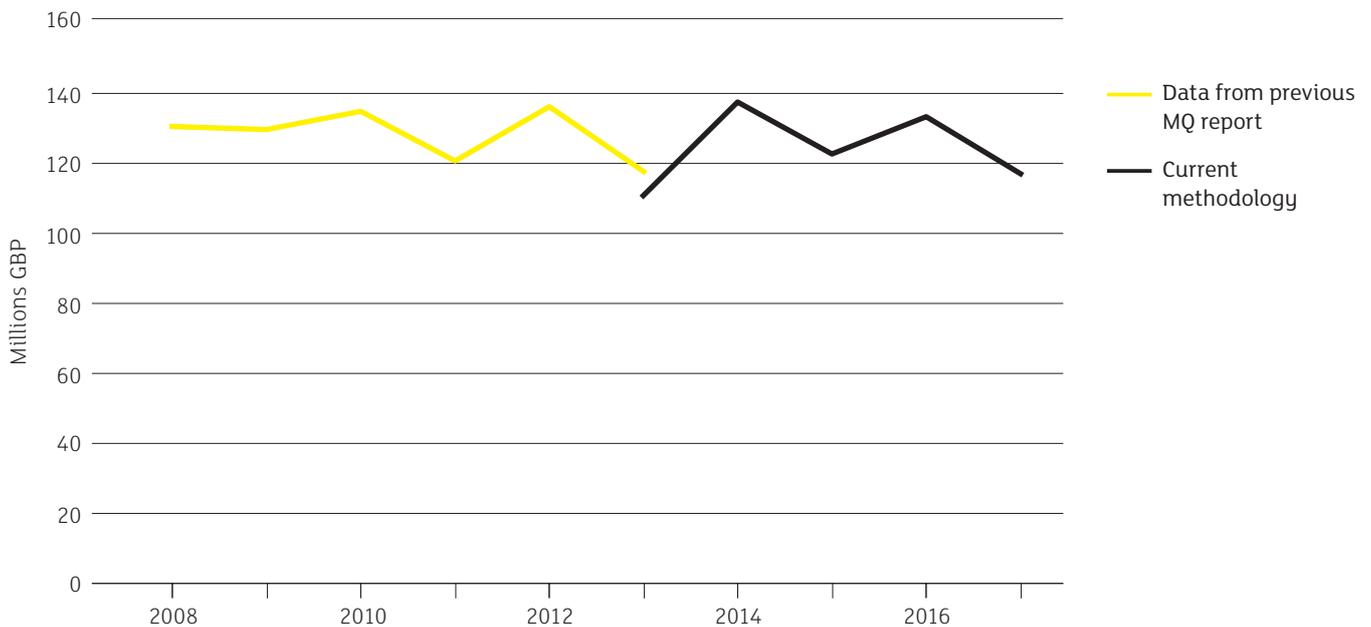
Investment in mental health research has fluctuated slightly over the past four years, which can be attributed to the relatively small sums invested – one large grant will have a big effect. However, despite these fluctuations, it is evident that there has not been a significant increase in mental health research funding from 2014 to 2017.

Looking further back to the numbers outlined in our previous report, inflation means that in real terms, spending on mental health research has remained essentially flat since 2008. This time trend should be interpreted with caution, since changes in methodology mean the data sets are not directly comparable [see ‘Methods’ section and Lancet Psychiatry paper¹²]. However, it is in line with the conclusion of the 2014 HRCS report, which deduces that increases in mental health research funding between 2008 and 2014 have been minimal – whilst the overall grants budget in the UK has grown by 7% during this time.⁴

“Increases in mental health research funding between 2008 and 2014 have been minimal – whilst the overall grants budget in the UK has grown by 7% during this time.⁴”

Figure 1. Levels of mental health funding over time (inflation adjusted to 2017 values)

Figure reproduced with kind permission from *Lancet Psychiatry*¹²



Funding in context

To put these numbers in context, we looked at the research spend per person. Approximately 13.5 million people per year are affected by a mental health condition in the UK. This means that, on average, £9 per person affected is currently

spent on research. To compare this to cancer, approximately £228 is spent per person affected – a 25 fold difference. That difference is 14 fold with dementia and 3 fold with cardiovascular disease.

Table 2. Mental health research funding in context

	Cancer	Cardiovascular disease	Dementia	Mental health
Annual research spend ⁴⁻⁶	£611.7 million	£180.9 million*	£114.8 million	£124.3 million
Number of persons affected ^{5,7,8}	2.7 million	7.5 million	0.9 million	13.4 million
Research spend per person affected	£228	£24	£127	£9
Proportion of research funded by fundraising charities ^{4,9-11}	68.2%	41.2%	27.6%	2.7%

*Based on 2014 spend and including HRCS categories stroke and blood.

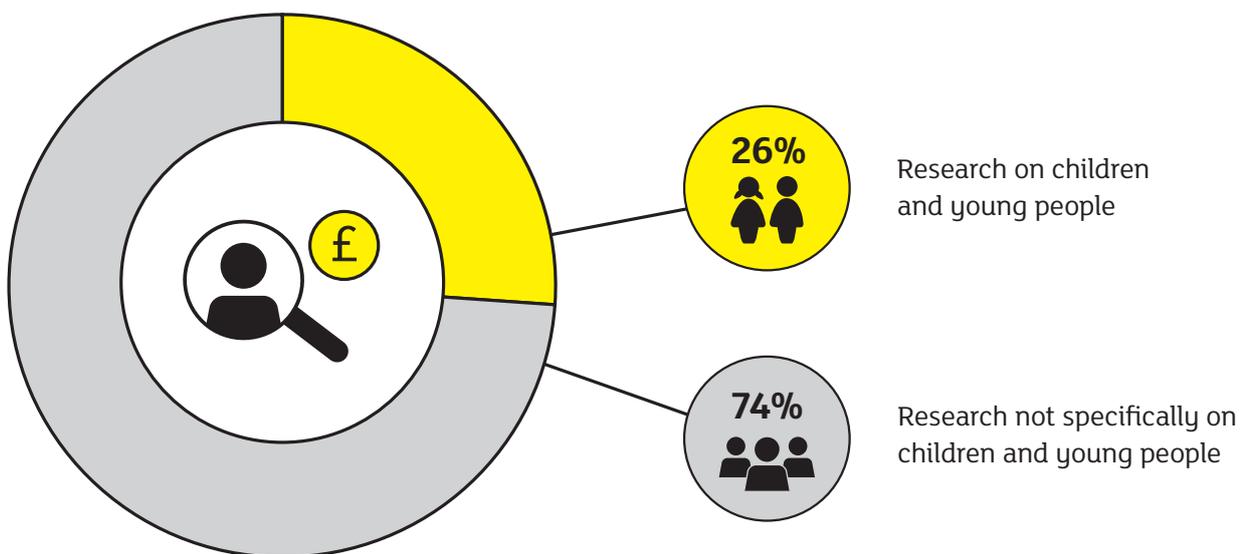
Children and young people^b

The majority of mental illness begins in childhood – demonstrating the need for research strategies to provide timely and effective help, at the earliest opportunity. Nearly 3.5 million children and young people are affected by a mental illness every year in the UK. The good news is that momentum is building in this area and a number of significant research initiatives are underway. At MQ, we've launched our Brighter Futures programme to make this area a priority.

However, our analysis found that research focussing on children and young people remains significantly underfunded – a major gap that needs addressing if we are to find new ways for prevention and early intervention in mental health.

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Figure 2. Proportion of mental health research funding dedicated to children and young people



^b Defined as research on the age group 0–25. It is important to note that this age categorisation is based on information given in the grants abstract and age of participants is not always available.

Methods

The figures in this report were generated using the Dimensions database from Digital Science. This database contains searchable grants from over 200 international funders, including major UK funders such as research councils and an increasing number of charities. We manually specified rules to search the database for grants in mental health funded by UK-based organisations, starting between 2014 and 2017.^c This search includes funding from UK-based funders to research organisations abroad. European Union funding is not included.

Investments in infrastructure and training underpin the UK's wider research capability and are critical for mental health research – these might include cohort studies, tissue banks, bioresources, neuroimaging facilities and other cutting edge equipment, data/computing infrastructure, clinical research facilities, and PhD training programmes. These investments may not be included in this analysis if they are relevant to health research in general, not present on Dimensions, or not identifiable as relevant to mental health from the abstract. Research by pharmaceutical or other private companies is not publicly available and therefore not included.^d

We have analysed mental health research funding from 2014–2017 by the following categories:

1. Spend by condition: We have developed a system for classifying mental health research into different conditions, as well as two categories for research that are relevant to many conditions (“General Mental Health” for more applied research and “Basic Psychology and Neuroscience” for research into the healthy mind and brain).

2. Spend by type of research: These are eight categories spanning from underpinning research to aetiology, prevention, detection, development of treatment, evaluation of treatment, management of disease and health services.

3. Spend by type of funder: For this analysis we grouped funders into charities actively fundraising from the public, government funders (RCUK [now UK Research and Innovation], National Governments, NIHR), and others (endowed foundations such as Wellcome and organisations with a variety of income streams such as the National Academies).

4. Spend by research organisation: This is an analysis of organisations receiving grant funding across the UK.

This methodology differs from our previous report (2008–2013), which was created by manual coding. We present a detailed description of the current methodology in an accompanying publication in *The Lancet Psychiatry*.¹²



HRCS defines mental health research as studies into:

Depression, schizophrenia, psychosis and personality disorders, addiction, suicide, anxiety, eating disorders, learning disabilities, autistic spectrum disorders and studies of normal psychology, cognitive function and behaviour.

^c In addition to the Dimensions database, we invited health agencies from the devolved governments, all AMRC charities, member organisations of the UK Alliance of Mental Health Research Funders as well as the Academy of Medical Sciences, the Royal Society and the British Academy to submit funding data manually.

^d Funding from research councils for PhD Studentships is not included, as they are allocated by universities directly. Although project descriptions can be found, funding amounts are not available on Dimensions.

The state of the current

funding landscape in the UK

Spend by condition

Key takeaways:

- **The annual amount invested in research into each mental health condition varies significantly.** Depression received the most research funding with an average of £11 million per year, followed by schizophrenia (£10 million), psychosis (£7 million), autism (£6.4 million) and anxiety (£5 million).
- **The most common mental health conditions in the UK are depression and anxiety.** Combined, different forms of depression and anxiety disorders affect 9.7 million people every year in the in the UK – and a total of £17 million each year is spent on research into these common conditions – less than 2 pounds per person (£1.78).^e
- **Self-harm, ADHD, personality disorders and eating disorders are among the areas receiving the least funding.** Per person affected,^f only 40p, 42p, 58p and 96p is spent on each condition respectively. Nearly 1 in 3 people (or 17 million people) in the UK experience a traumatic event in their life, putting them at risk of PTSD – yet per person affected by PTSD less than a pound (0.97p) is spent on research.

Grants were first categorised according to the mental health conditions they were most relevant to. Where a grant fell into more than one category, the funding amount was split across these conditions.

Many grants were relevant to mental health in general, rather than a specific condition – for example, studies of generic interventions into mental health or psychological wellbeing. Such grants were classified below as “General Mental Health”. Studies into the healthy mind and brain were classified as “Basic Psychology and Neuroscience”. Studies with relevance to both mental and physical health were proportionally included in this analysis, e.g. a grant looking at depression in the context of cancer would be counted only at 50% of its total funding amount.

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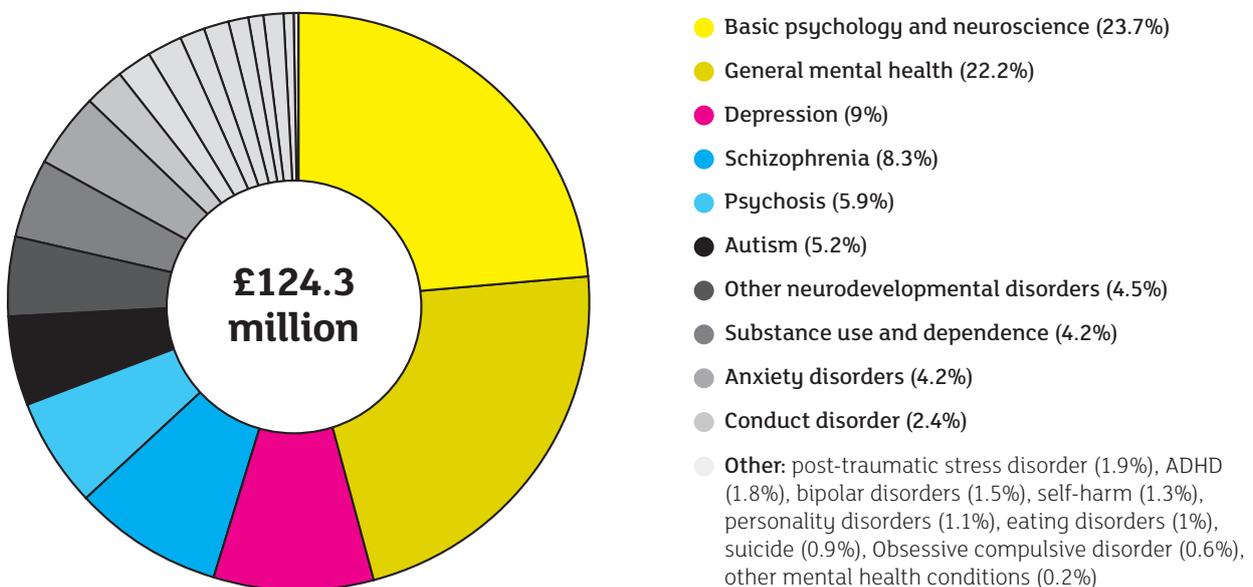
^e These conditions are grouped as “Common Mental Disorders” in the 2014 Adult Psychiatric Morbidity Survey¹⁶ and as “Emotional Disorders” in the Mental Health of Children and Young People 2017 Survey¹⁴ and comprise mainly mixed anxiety and depression, generalised anxiety, depressive episode, phobias, panic disorder and OCD. To compare the funding amount for these conditions, we combined anxiety, depression and OCD.

^f Number of people affected by specific conditions was calculated using published prevalence data^{14,16–18} in combination with population estimates for the UK for 2017.¹⁵

Table 3. Average yearly spend by condition (Millions GBP)

Category	Total funding over four years	Annual average funding amount
Basic psychology and neuroscience	118.0	29.5
General mental health	110.4	27.6
ADHD	9.1	2.3
Anxiety disorders	20.8	5.2
Autism	25.8	6.5
Bipolar disorders	7.6	1.9
Conduct disorder	11.7	2.9
Depression	44.8	11.2
Eating disorders	4.8	1.2
Obsessive compulsive disorder	3.1	0.8
Other mental health conditions	1.1	0.3
Other neurodevelopmental disorders	22.5	5.6
Personality disorders	5.5	1.4
Post-traumatic stress disorder	9.3	2.3
Psychosis	29.4	7.4
Schizophrenia	41.1	10.3
Self-harm	6.6	1.7
Substance use and dependence	20.9	5.2
Suicide	4.6	1.1
All mental health	£497.2 million	£124.3 million

Figure 3. Proportion of spend towards each condition



Spend by type of research

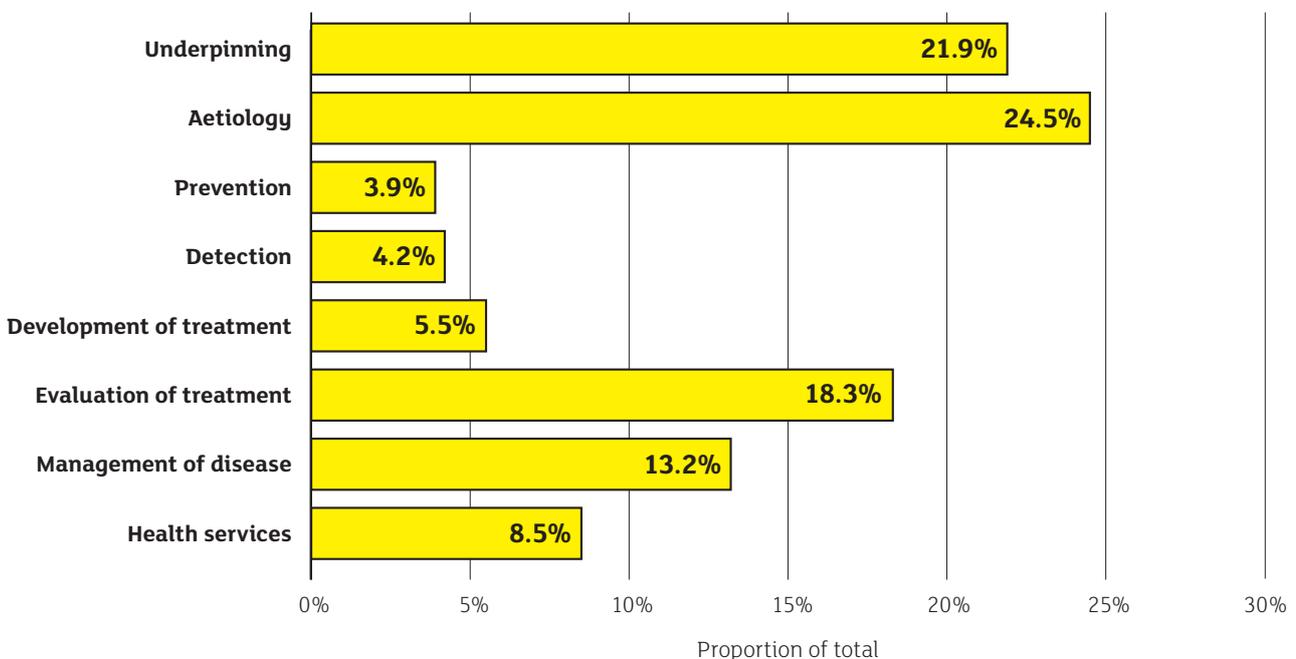
Key takeaways:

- **Almost half of funding for mental health research – 46.5% – goes towards underpinning research and aetiology, with 140 new projects funded per year.** Underpinning research aims to understand the structure and function of the brain and how it works in a healthy, functioning way – while aetiology looks into the factors contributing to the development of mental health conditions. These categories provide a base for research into treatments, interventions and the management of mental health conditions.
- **Conversely, research into detection and prevention of mental illness receives less than 5% of the funding – and only 13 new projects focussing on developing new mental health treatments are funded each year.** These amounts are worryingly low; investment in these areas can directly impact and improve lives, leading to tangible change.

We know that long waiting times and unequal access to mental health services can cause huge distress and put lives at risk. Areas of research like detection, prevention and treatment development bring with them the potential

not only to develop more effective, more targeted responses, but to do so in ways that ease the burden on the health service – offering a long-term, sustainable solution to this situation.

Figure 4. Distribution of funding over the different types of research using HRCS Research Activity Codes^g



^g See the 'What is mental health research' chart on p.4 for illustration of all these categories – one is combined into development and evaluation. Research Activity Codes were assigned automatically by Dimensions using a machine learning algorithm. They were not available for 286 of the grants, corresponding to 11.37% of the funding, and this is therefore not included in this part of the analysis.

Spotting the gaps

Only small amounts of money go towards research into prevention and detection of mental illness and as Figure 5 shows, large parts of this funding fall into the “General Mental Health” category – suggesting that research often looks at preventing and detecting mental health problems in general, rather than specific conditions. Treatment development also receives small amounts

of funding, and large parts of this go towards treatment development in schizophrenia, with very little funding dedicated towards to other areas such as self-harm, OCD and conduct disorder. While aetiology is among the better funded types of research, very little funding is going into understanding the emergence of conditions such as eating disorders, personality disorders and self-harm.

Figure 5. Funding by type of research and condition



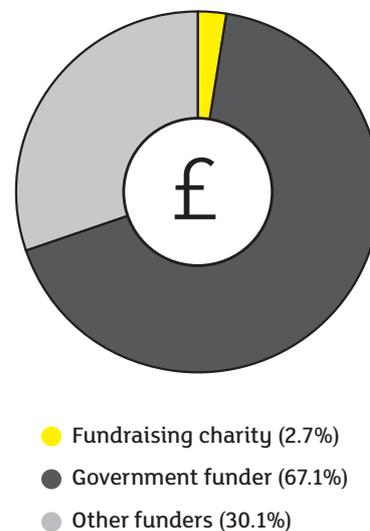
Spend by type of funder

For this analysis we grouped funders into charities actively fundraising from the public, government funders (RCUK,^h National Governments, NIHR), and others (endowed foundations such as Wellcome and organisations with a variety of income streams such as the National Academies).

Key takeaways:

- **Government funders are the largest group of mental health research funders.** Together they account for 67% of mental health research funding.
- **Conversely, research funded by public donations accounts for just 2.7% – which, compared to other diseases, is very low.** In terms of cancer research, spending by fundraising charities makes up 68% of funding. In cardiovascular disease it is 41% and in dementia it's 28%.

Figure 6. Mental health research funding by funder group (% of total)



Spend by research organisation

Funding for mental health research goes to over 250 universities, institutes and NHS Trusts. However, the majority of grant funding is won by researchers at just 10 organisations. A third of the funding goes to Oxford,

University College London and King's College London – each of these receiving more than 10 million on average per year. Cambridge, Cardiff and Manchester also receive large proportions of funding.

Table 4. Research organisations receiving the highest levels of grant funding for mental health researchⁱ

Research organisation	Average annual funding amount	Percentage of total
University of Oxford	£15.98 million	12.8%
University College London	£14.53 million	11.7%
King's College London	£13.04 million	10.5%
University of Cambridge	£6.79 million	5.5%
Cardiff University	£6.43 million	5.2%
University of Manchester	£4.09 million	3.3%
University of Sussex	£3.49 million	2.8%
University of Bristol	£2.97 million	2.4%
South London and Maudsley NHS Foundation Trust	£2.94 million	2.4%
University of York	£2.72 million	2.2%

^h Now UKRI, including Innovate UK.

ⁱ Funding for NIHR Biomedical Research Centres is not included in this analysis.

Research landscape developments

in progress

While the level of mental health research funding between 2014–2017 remained well below what is required, a number of significant funding developments did occur during this period. These advances are an important step towards improving the research landscape for mental health in the UK.

Mental health has been made a priority area by the Wellcome Trust with £200 million of funding committed over the next 5 years.

Their programme will focus on improving treatments for anxiety and depression and creating an overarching ‘super-discipline’ of mental health science. This aims to bring together psychiatrists, clinical psychologists, neuroscientists and data scientists.

UK Research and Innovation has announced eight new Mental Health Networks, with £8 million of funding to progress mental health research.

These networks focus on areas including health inequalities faced by people with severe mental illness, social isolation, youth and student mental health, domestic and sexual violence, and the impact of community on mental health.

The Medical Research Council has made mental health a strategic priority across the organisation. It’s encouraging researcher-led applications in mental health across its standing boards and panels, alongside funding larger strategic initiatives worth £32 million, which include the Mental Health Data Pathfinders, Therapeutic Target Validation for Mental Health and Global Mental Health.

Several NIHR Biomedical Research Centres, which received a new round of funding in 2017, have mental health as part of their research programme, most notably the NIHR Biomedical Research Centre at South London and Maudsley NHS Foundation Trust and King’s College London with an overall funding of £65 million over 5 years.

Conclusions and next steps

MQ's vision is of a future where mental illness is understood, effectively treated and ultimately prevented. To achieve that vision, we need a truly multidisciplinary approach – with researchers, clinicians, practitioners and people with lived experience of mental illness working together. We need investment in the full range of mental health research, from neuroscience to social sciences, to new treatments and prevention. In short, we need recognition that a transformation in mental health can only happen through a transformation in research – driven by funding.

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Next steps

1

Building a robust picture

The development of this database is an important step in the categorisation of mental health research. However, to really take advantage of this and begin to understand the needs and opportunities to drive research forward, it's important for funders and other interested parties to come together and build on this analysis.

To take this forward, the Mental Health Research Funders Group^j has committed to holding an exploratory meeting in 2019 to discuss next steps.

2

Increasing support and championing change

This analysis highlights the scale of the task ahead. However, recent improvements in the public dialogue around mental health – and positive commitments from funders – provide a platform to prioritise mental health research and deliver changes in funding and outcomes.

The UK is recognised internationally as a global leader in mental health research. We want to ensure the opportunities from this are maximised. We are committed to building support from government, industry, research and the public to prioritise mental health research and attract greater investment. We want to work in partnership with everyone who shares our vision and our determination to transform the future of mental health for good.

^j MQ co-ordinates the Mental Health Research Funders Group which includes the Department of Health, the Economic and Social Research Council (ESRC), the National Institute for Health Research (NIHR), the Medical Research Council (MRC), the Wellcome Trust and Mental Health Research UK.

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