Mental Health Inequalities in Children and Young People

Competition for development funding

NHS England
NHS Improvement
SBRI Healthcare

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SBRI HEALTHCARE

The AHSN Network

NHS

Contents

Executive Summary

A large proportion of adults with mental ill health experience their first symptoms during childhood or adolescent life. However, despite a well-recognised need for early interventions, the supports and services have not been able to keep up with the increasing demand.

Despite a diminishing level of funding going towards mental health services, demand for Children and Young People Mental Health Services (CYPMHS) has continued to increase in recent years, leading to long waiting times and insufficient support, challenges that are particularly pronounced and exacerbated in BAME communities, low-income families, and other marginalised groups during the COVID-19 pandemic. Moreover, adolescents are uniquely impacted by the need to transition from paediatric to adult health services, where there is a significant change in service provision.

Recognising the need to address these immediate challenges, this competition seeks to alleviate two primary issues by facilitating the implementation of developed innovations in the relevant settings.

1. **Mental health service and support improvements.**
2. **Mental health service access and support for disadvantaged, marginalised, or BAME communities.**

This competition has a particular focus on health equity and applicants should take all appropriate steps to ensure the proposed innovation would not further exacerbate inequalities, including, but not exclusive to, those from low-income families, marginalised communities, and technologically inexperienced.

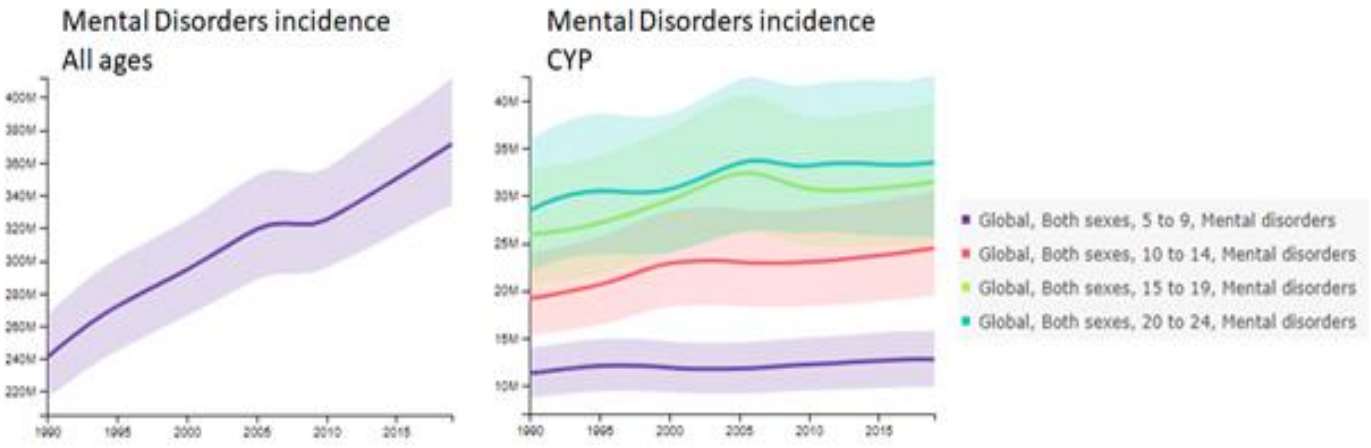
Applicants are asked to consider their innovation in the context of the whole system, and to be aware of the competitive environment, even considering working together with other companies to bring forward solutions that can make a real difference.

Mental Health Inequalities in Children and Young People

The Global Mental Health Challenge

Mental health (MH) problems, which include depression, anxiety, stress, and others, are a growing public health concern and the incidence of MH disorders has continued to increase globally over the last few decades, and may affect up to 1 billion people worldwide.

Depression is the leading MH problem, followed by anxiety, schizophrenia, and bipolar disorders. Childhood and adolescence are critical periods to promote MH as about 50% of adults experience their first symptoms by the age of 14, and 75% by the age of 24 (1). If left untreated, MH can negatively impact on development throughout the life course; thus, access to high quality and appropriate health and social care systems for children and young people (CYP) are crucial.



Source: Global Health Data Exchange

Children and Young People's Mental Health in the UK

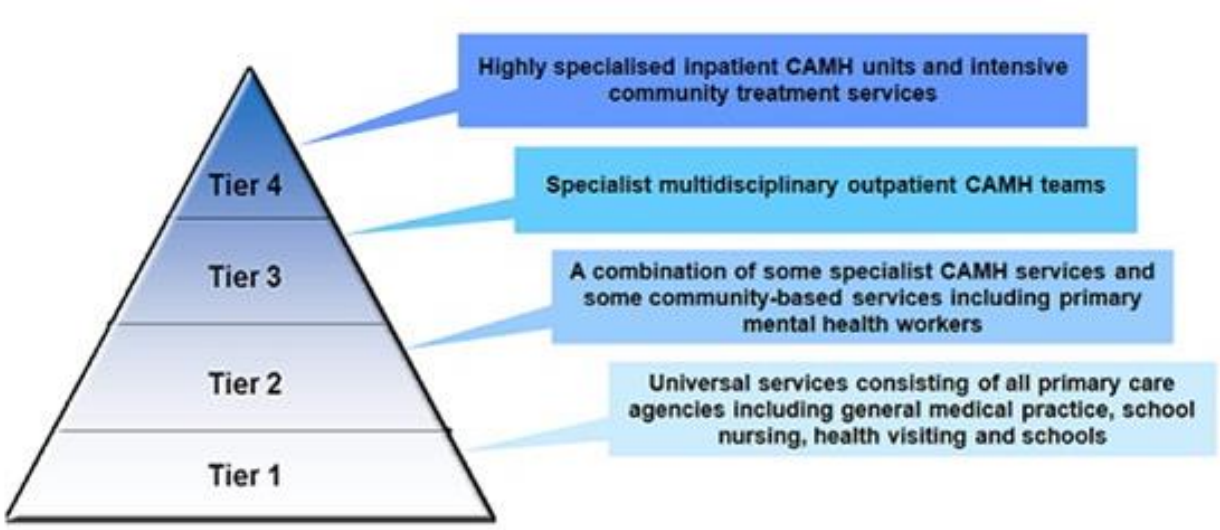
The World Health Organisation estimated that approximately 4.2% and 4.5% of the UK population is affected by depressive and anxiety disorders (2), which account to about 2.8 and 3 million people, respectively. It is estimated that the cost associated with mental illness accounts to 4.5% of gross domestic product in the UK (3). When spending on specialised commissioning service is added to local clinical commissioning groups (CCG) spending, the total MH funding planned for 2020/21 had reached £14 billion (4).

1. Kessler et al., 2005. Doi: 10.1001/archpsyc.62.6.593
2. Depression and other common mental disorders. WHO. Link
3. OECD Mental health and work: United Kingdom. 2014
4. NHS mental health dashboard, NHS. Link

The rates of probable mental disorders in CYP have increased from one in ten in 2017 to one in six in 2020 in England (5), and it is estimated that between the ages of 5 and 15, one in nine children in the UK has a MH problem (6).

Specialist Children and Young People's MH Services (CYPMHS), previously tier 2-3 Children and Adolescent Mental Health Services (CAMHS), provide assessment and treatment for CYP with emotional, behavioural, or MH difficulties through a network of services, and are available in all of the UK's devolved nations. Conditions that are covered by CYPMHS include depression, eating disorders, self-harm, trauma, violence or anger, bipolar disorder, schizophrenia, anxiety, among other difficulties. To get help from specialist CYPMHS, a referral from a doctor is generally required. However, some services may accept referrals from schools, social workers, youth offending teams, or an adolescent directly.

Specialist CYPMHS can be divided into four tiers, with an increase in specialist care from tier 1 to 4. However, many CYPMHS have moved from the tiered model, where a young person is allocated to a specific tier of service aligned with complexity/need, towards a more 'integrated' service model that allows young people to benefit from the full range of support available, recognising that needs can be complex. It is anticipated a more joined up approach involving health and social care, education, police, probation, and the third sector would further enhance MH support for CYP.



5. Mental health of children and young people in England, 2020: wave 1 follow up to the 2017 survey. NHS Digital. Link
6. Mental health of children and young people in England, 2018. NHS Digital. Link

Mental Health Inequalities in Children and Young People

Children and young people of all age groups, and those from certain backgrounds, face unique challenges that are not experienced by adults, which can result in MH inequalities.

One of the unique challenges faced by adolescents with mental ill health is the need to transition from CYPMHS to Adult Mental Health Services (AMHS), which typically occur between 18 and 25 years of age, coinciding with some major developmental milestones for emerging adults. However, evidence suggests that many adolescent service users become disengaged from utilising MH services (7). Some of the factors associated with a high level of disengagement include disease-specific ambivalence or denial, mental illness and/or addiction interfering with functioning and acceptance of formal supports, differences between CYPMHS and AMHS, and ineffective planning and execution of the transition between services (8). A new approach to young adult MH services for people aged 18 to 25 was described in the recent NHS Long Term Plan (LTP) to support the transition to adulthood, coordinating health, social, education and voluntary sectors to provide appropriate support for adolescents transitioning to AMHS.

CYPMHS have experienced a significant increase in demand between 2017/18 and 2019/20, with the number of referrals increased by over 50%. The increase in demand means that more people need to wait longer for care, and an increasing number are ineligible for the service. The demand is likely to have increased further during the COVID-19 pandemic, which has shown to exacerbate childhood depression symptoms (9).

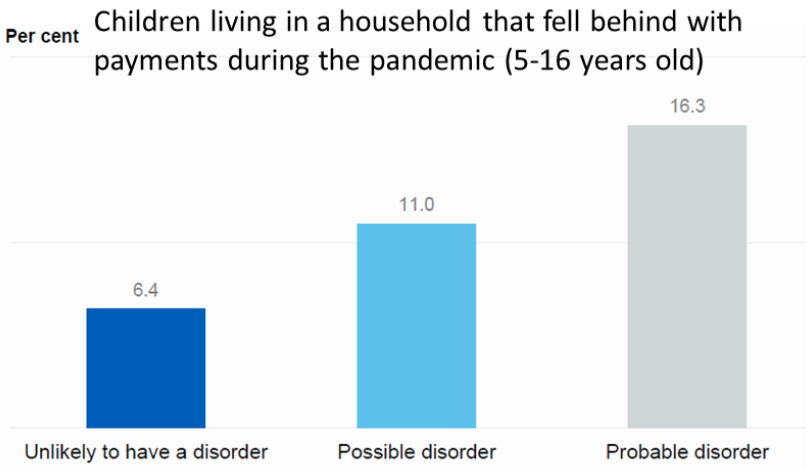
Although no one is immune to poor MH, some CYP are more susceptible than others. The factors below are recognised risks to mental ill health:

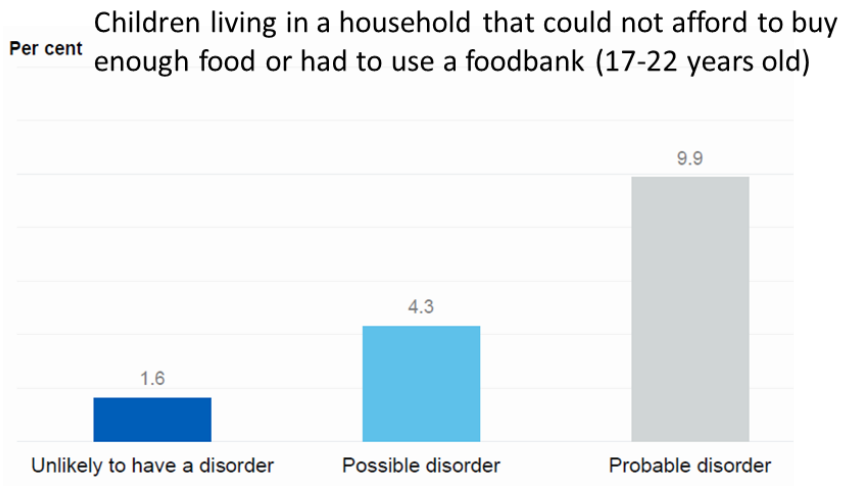
- Poverty or financial crisis
- Parental separation
- Black, Asian, and Minority Ethnic (BAME)
- Lesbian, Gay, Bisexual, Transgender, Queer or Questioning (LGBTQ+)
- In looked-after care
- In youth justice system
- Disabilities

Some of the increased risks can be attributed to individuals' low self-esteem, difficulties communicating, physical illness, socio-economic determinants, and the environment in which they live. In addition, living with or cared for by a parent with mental illness, experiencing neglect, abuse, conflict or bereavement can also predispose CYP to mental ill health.

7. Singh et al., 2010. Doi: 10.1192/bjp.bp.109.075135
8. Broad et al., 2017. Doi: 10.1186/s12888-017-1538-1.
9. Bignardi et al., 2020. Doi: 10.1136/archdischild-2020-320372

Socio-economic disadvantage has been linked to MH difficulties in CYP. In the UK, there were 4.3 million children living in poverty in 2019/20 (10); children and adults living in households in the lowest 20% income bracket are two to three times more likely to experience mental ill health compared to those in the highest income bracket (11). However, this is not unique to the UK, a systematic review from 23 countries reported a similar observation (12).





Figures from a recent survey indicate that children with a probable mental disorder were more than twice as likely to have come from a household that fell behind with payments, and young people with a probable mental disorder were more than five times more likely to have come from a household that could not afford to buy enough food or had to use a foodbank (13).

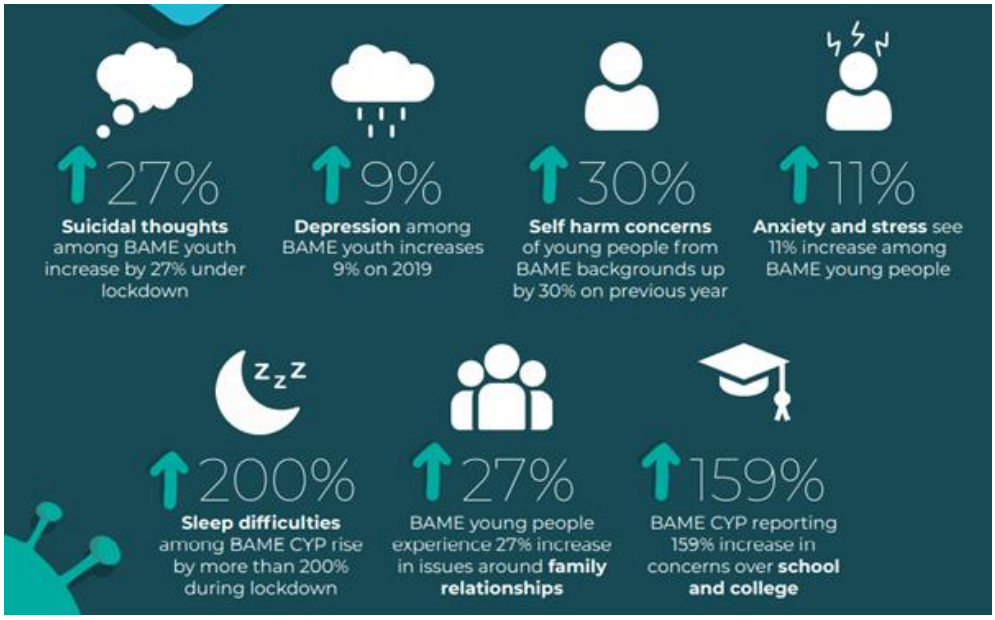
Debt and relationship breakdown are some of the leading causes of homelessness, and there were almost 61,000 families with children in temporary accommodation in 2017. Homelessness may increase the likelihood of bullying and isolation, and reduce the quality of the home environment. These may contribute to increased risk of depression and behavioural issues, which can impact a child's health and development beyond the period of homelessness (14).

10. Households below average income: 1994/95 to 2018/19. Department for Work and Pensions. Link
11. Mental health statistics: poverty. Mental Health Foundation. Link
12. Reis et al., 2013. Doi: 10.1016/j.socscimed.2013.04.026
13. Mental health of children and Young People in England, 2020: Main report. Link
14. The impact of homelessness on health, a guide for local authorities. Local Government Association. Link

It is well recognised that looked-after, CYP have specific physical, emotional, and behavioural needs, and are more than four times more likely to experience MH difficulties than those not in care. It is estimated that about half of the looked-after CYP has some form of diagnosable mental disorder. Although support may be provided by social workers and foster carers, some cases may require additional therapeutic support through the specialist CYPMHS.

There is evidence to suggest that ethnic background can influence the way individuals are establishing contact with secondary MH services. In the UK, Black African individuals are more likely than White British to be referred to MH services from secondary health or social/criminal justice services than from primary care, which is particularly pronounced for those aged 16 to 17. Those who are referred from secondary health services are also more likely to be referred as inpatients (Tier 4 CYPMHS). The relatively low level of primary care access from those identified as Black African can be attributed to a number of reasons, including a perception of the MH problems as normal or unsuitable for professional help, negative expectations of professional help, believing that informal intervention strategies are sufficient, fear of being stigmatised for having a MH disorder, and self-perceptions of being strong and/or self reliant (14). Furthermore, children from ethnic minority groups are more likely to terminate treatment prematurely.

During the COVID-19 pandemic, BAME CYP saw a 9.2% and 11.5% increase in depression and anxiety, respectively, compared with a 16.2% fall in depression and 3% increase in anxiety among Caucasian population. This is partly attributed to the widespread distribution of information that claims BAME individuals are more at risk of dying at the hands of SAR-CoV-2 virus, whilst no additional information is provided on the root cause of this phenomena, or on preventive measure to reduce the risks, thus increasing the worry and anxiousness of BAME communities.



Source: Kooth.com BAME infographic 2020

NHS strategy - The NHS Long Term Plan targets

The NHS LTP published in 2019 renewed the Government's commitment to improve and widen access to care for children and adults needing MH support (15).

Specifically, the Long Term Plan would aim to:

- Transform MH care so more people can access treatment;
- Increase efficiency for people of all ages to receive MH crisis care, specifically there is an aim to expand access to community-based MH services to meet the needs of at least an additional 345,000 CYP, including support embedded in schools and colleges;
- Create a new approach to young adult MH services for people aged 18-25, to support transition to adulthood;
- Increase investment to meet the needs of rough sleepers, to ensure that the parts of England most affected by rough sleeping will have better access to specialist homelessness NHS mental health support, integrated with existing outreach services.

Snapshot: Pressures on England's NHS

Funding per child and young person is influenced by the size of the population. Whilst the number of CYP has increased by 3% since 2010/11, the estimated funding for CYP has fallen by about 26% (16). At the same time, there has been a significant increase in the demand for CYP MH services, the number of people referred to specialist CYPMHS has increased from 343,000 in 2017/18 to 540,000 in 2019/20.

In 2015, nearly 19,000 children were admitted to hospital after harming themselves, a 14% rise over 3 years.

In 2017/18, 31% of the CYP referred to specialist CYPMHS received treatment within the year and 32% were still on the waiting list at the end of the year. Additionally, 37% were not accepted into treatment and were discharged after an assessment (17).

In 2019/20, about 35,000 (6%) of CYP waited over 12 weeks between referral and their second contact, and 126,000 (23%) were still waiting for a contact. Additionally, 14,665 (21%) of the referrals were closed before treatment (18), many who were not accepted into treatment were due to not meeting the eligibility criteria or age specification for the service (19).

The long waiting time can be partly attributed to a significant rise in demand, insufficient CYPMHS capacity and a slow increase in workforce. Between 2013/14 and 2014/15, referral rates to CAMHS has increased five times faster than the CYPMHS workforce (20).

The LTP signalled a number of ambitious MH transformation programmes and in light of COVID-19, the NHS took action to accelerate the delivery of some aspects of the LTP supported by an additional £500 million in MH in 2021/22.

15. NHS Long Term Plan. NHS. Link
16. Children and young people's services: funding and spending 2010/11 to 2018/19. Action for Children. Link
17. Support for children and young people's mental health – policy, CAMHS services, funding and education. House of Lords Library. Link
18. Waiting times for children and young people's mental health services, 2019-20. NHS Digital. Link
19. Access to child and adolescent mental health services in 2019, Education Policy Institute. Link
20. CAMHS – Facts and Figures. Local Government Association. Link

Many of MH services remained open throughout the pandemic, though some of the services scaled down to seeing urgent cases only and new referrals to core community MH services were impacted in the first lockdown. Indicative data suggests referral rates were not impacted as severely in the second and third national lockdowns

CYP have been particularly impacted by COVID-19, with interruptions to social and educational support. Urgent CYP eating disorder cases doubled and routine cases increased more than 31% in Quarter 4 2020/21 when compared to the previous year. As a response to this, an extra £40 million has been allocated to address the COVID impact on children and young people's mental health and to enhance services across the country.

What can be done to release pressure on the system and improve quality of health and care?

The challenges of overcoming MH inequalities stem from systemic problems that are difficult to address at an individual's level, and there may be a need for community or society-wide mobilisation in the way problems are tackled.

CYP MH services experience some unique challenges that are less apparent or absent in adult services, including a slower increase in workforce, systems, and infrastructures to support a rapidly increasing demand, and the need to transition from a service designed for CYP to a service better suited for adults.

It is well recognised that specialist CYPMHS have long waiting times, a problem that has been further exacerbated and brought to the spotlight by the COVID-19 pandemic. In addition, selected groups of CYP are particularly impacted by mental ill health, which could be attributed to lack of resources, community support, perception of MH problems and services, and stigmatisation.

Some of the solutions that could improve equity of MH services and supports may include:

- Early detection and support in the home, community, or school environment to reduce the need for specialist services.
- A move from episodic care to ongoing multidisciplinary integrated support to the most vulnerable groups of CYP who are often identified at school entry.
- Improving the quality of referral information and/or from first assessment to risk stratification of patients.
- Assisted and more efficient decision making process to manage referrals and specialist caseloads.
- Signposting for alternative and appropriate services/support, or self-help.
- Free to use and clinically validated tools to address MH disparities in income and housing status.
- Culturally or experience appropriate support and interventions.
- All solutions must address stigmatisation and safeguarding the CYP.

The Categories

Under the overall theme of 'Mental Health Inequalities in Children and Young People', two categories have been identified *via* consultation with clinicians and other stakeholders working in provision of care across the spectrum.

Applicants are expected to respond to at least one of the two sub-categories and should be mindful of the broader impact on the CYP MH care system.

Sub-Categories

1. **Mental health service and support improvements**
2. **Mental health service access and support for disadvantaged, marginalised, or BAME communities**

Those submitting applications are also asked to consider:

- How will the proposed solution impact on the health and care system and how will the system need to be changed (including people, processes and culture) in order to deliver system-wide benefits?
- How will you ensure that the innovation will be acceptable to CYP (and their families and wider support network), and to health and social care workers and education providers? How could these groups be involved in the design of a solution and its development?
- How will you ensure that the innovation is affordable to the NHS and wider system, such as Integrated Care Systems (ICSs) both immediately and throughout the life of the product?
- How will you support an already stretched workforce to implement the solution?
- What evidence, both health economics and delivery of true impact, will the NHS and wider system require before the technology can be adopted?
- How will you ensure that the innovation enhances equity of access (e.g. takes account of underserved ethnic or socio-economic groups) and helps the NHS towards its target to reach net zero carbon.
- Consideration must be given to ensure that the proposed innovation would not exacerbate inequalities and should provide a mitigation to reduce such inequalities, e.g. low income, BAME, technologically inexperienced, disabled, marginalised, etc.

Category 1: Mental health service and support improvements

Background

There has been a significant increase in demand for CYP MH services, with over 25% of patients waiting over 3 months to receive their first contact after a referral, and over 20% deemed ineligible to receive specialist CYPMHS treatments. As such, there is insufficient MH support for CYP who are on the waiting list or with milder symptoms. However, CYP MH is complex, can deteriorate quickly, and there is often a need for age specific interventions to improve outcomes or prevent further deterioration. It is recognised that there may be a need for disruptive innovations to significantly improve CYP MH services

and efficiency. In these cases, innovators are expected to propose a convincing argument to secure buy-in of local services and commissioners.

Challenges

Potential solutions to this sub-category include strategies to support:

1. Identification of early signs of mental ill health in CYP at home, school, or community, and provide timely support to reduce the need for more specialist care (e.g. through wellbeing apps, virtual reality, signposting services, courses, etc).
2. Provision of clinically validated support, co-designed with patients, to improve or prevent deterioration of mental health of CYP who are ineligible or waiting for specialist CYPMHS, respectively.
3. Risk stratification of patients using data from referral or from CYPMHS assessment to facilitate higher quality, more efficient, and/or earlier interventions for high risk individuals.
4. Assisted clinical decision-making to help manage the service caseloads of specialist CYPMHS.
5. Provide effective support to help facilitate the transition from CYPMHS to AMHS, and reduce disengagement of interventions.
6. Adaptation of existing solutions used in AMHS or other health and social care services for CYMPHS.

The following "what if" are some examples of scenarios that have the potential to improve mental health support and services for children and young people. The statements are intended as examples only.

Category 2: Equity of MH service access for disadvantaged, marginalised, or BAME communities

Background

Factors that contribute to mental ill health and its severity may include coming from a family with low income, in looked-after care, homelessness, disabled, or from a BAME background etc. The level of depression and anxiety are significantly higher in these groups, overrepresented in inpatient services, or referred from social/justice systems. Thus, it is clear that there is a lack of tailored MH support to help CYP from disadvantaged, marginalised, or BAME communities to overcome challenges they are presented with.

Challenges

Potential solutions to this sub-category include strategies to support:

1. Access to MH services for CYP from disadvantaged, marginalised, or BAME communities (e.g. overcoming perception on the severity of MH or the need for MH services, stigmatisation, lack of access to technologies, etc).
2. Provision of culturally or experience appropriate support to improve mental health of CYP in the community or specialist care setting.
3. Ways to provide sustainable long term access to technologies or innovations that would improve CYPMH from low income or other disadvantaged communities, supplementing interventions provided by specialists where appropriate.
4. Tailored support for parents/guardians of CYP from disadvantaged, marginalised, or BAME communities to ensure their children can access CYPMHS equally and in a timely manner.

The following “what if” are some examples of scenarios that have the potential to improve mental health supports and services for children and young people The statements are intended as examples only.

What if we can provide timely mental health service access and support for disadvantaged or BAME communities?

What if we can improve disadvantaged, marginalised, or BAME communities' understanding of mental health services to encourage timely access for children and young people?

What if we can improve community mental health support to improve outcomes of children and young people from disadvantaged, marginalised or BAME communities?

What if we can remove stigmas or obstacles associated with mental health services in the disadvantaged or BAME communities to help seeking?

What if we can provide effective and free mental health services to children and young people from low income or looked after backgrounds?

Useful Information for Applicants

Innovations on the radar

Given the importance and long term nature of this challenge, there are many products already in the market or in later development. It is important that potential applications for this competition carefully consider the competitive landscape.

It may even be appropriate to consider partnering with another solution provider to generate something even more compelling that addresses the challenge systematically.

The list below illustrates some examples of innovations that have been funded by national programmes with the potential for addressing emergency care issues (it is not intended to be exhaustive):

- SBRI Healthcare supported the development of **XenZone**, now **Kooth**, which is commissioned by the NHS, Local Authorities, charities, and businesses to provide anonymous and personalised mental health support for children and young people.
- **Brain in Hand**, featured in Innovation Agency Exchange, is a digital support solution that helps users to become more independent, and reduces the cost for the support-providing organisation. Through a combination of digital tools and human support, organisations are able to reach people that need help more effectively.
- **UCLH Pathway Programme** for homeless patients admitted to hospital, involves GPs, dedicated nurses and others to address the housing, financial and social issues of patients. A&E attendances by supported individuals fell by 38% with a 78% reduction in bed days.
- **Meru Health** remote therapy programme is a structured 12-week remote therapy for the treatment of depression, anxiety and burnout, combining evidence-based exercises and support from a personal licensed therapist.

Technologies excluded from this competition

There are a number of technologies or types of solution that will have limited impact on the challenges described in the brief, these are listed below. Any technologies that negatively impact staff workloads will also be excluded.

- Technologies under development or in prototype stage.
- Technologies with a primary focus on facilitating virtual meetings and talking therapies.
- Innovative solutions developed without children and young people's input.
- Innovations to address the needs of CYP from particular communities, but developed without their direct input.

Additional considerations

- Given the rural nature of many places, an over-reliance on home and community interventions needing to be permanently online should be considered (Wi-Fi and phone signals in rural locations may be weak or unreliable).

- Innovators are asked to consider the cost of data use and the need for personal smart devices, which would negatively impact on accessibility by some low income or marginalised communities.
- For any digital intervention, the NICE Digital Health Technology Framework should be consulted and your application should evidence your plan to meet the appropriate evidence guidelines. This comprises both clinical effectiveness and economic evaluation.
- Evidence that the NHSX Digital Technology Assessment Criteria (DTAC) has been considered should be demonstrated in your proposal.

SBRI Healthcare Programme

The Small Business Research Initiative (SBRI) Healthcare competition is launched by NHS England and NHS Improvement in partnership with the Academic Health Science Networks (AHSNs) to identify innovative new products and services. The projects will be selected primarily on their potential value to the health service, and social care system and on the improved outcomes delivered for those in receipt of care.

The competition is open to single companies or organisations from the private, public and third sectors, including charities.

The Phase 3 competition runs in one phase only and is intended to facilitate the implementation of developed innovations. The contracts placed will be for a maximum of 9 months and up to £500,000 **(inc. VAT)** per project.

The implementation will be 100% funded and suppliers for each project will be selected by an open competition process and retain the intellectual property rights (IPR) generated from the project, with certain rights of use retained by the NHS.

The competition opens on **24th August 2021**. The deadline for applications is **1pm on Wednesday 13th October 2021.**

Eligibility

Proposed projects are expected to meet the entry criteria, and address the descriptions detailed in the challenge brief.

Entry criteria

The call is open to innovations in the advanced stage of development. The aim is to accelerate these innovations into relevant health or social settings, and to facilitate the collection of evidence in real world settings required by commissioners and regulators to make purchasing or other recommendations/decisions.

The call is open to any innovation (e.g. medical device, in-vitro diagnostic, digital health solutions, behaviour intervention, new models of care, etc) that meets the following requirements:

- CE mark or equivalent regulatory approval obtained for the proposed application (or evidence demonstrating the technology is close to obtaining approval) and/or Product in use in at least 1 Trust,
- Clear partnership established with relevant service(s) / site(s) and relevant clinical team(s).
- Clinical efficacy and safety demonstrated through clinical trial(s)
- For digital solutions, evidence that the technology has passed the necessary information governance and cyber security requirements

A NICE META tool evaluation is preferable, although not an entry requirement.

Desirable Exit criteria

The aim of the funding is to generate Real World evidence to support rapid local/regional roll out of the innovation, and expected to demonstrate some of the following upon project completion:

- Demonstration of implementation effectiveness
- Partnership developed for implementation in at least 1 NHS Trust
- Registration to HealthTech Connect / NHS Innovation Service
- Health economics analysis (and cost benefit analysis)
- Other relevant evidence to ensure local adoption following project completion, facilitating adoption further afield (for example budget impact model, care pathway impact model, scaling up plan and strategic plan towards adoption and spread)

Application process

This competition is part of the SBRI programme which aims to bring novel solutions to Government department issues by engaging with innovative companies that would not be reached in other ways:

- It enables Government departments and public sector agencies to procure new technologies faster and with managed risk;
- It provides vital funding for a critical stage of technology development through demonstration and trial – especially for early-stage companies.

The SBRI scheme is particularly suited to small and medium-sized businesses, as the contracts are of relatively small value and operate on short timescales for Government departments.

It is an opportunity for new companies to engage a public sector customer pre-procurement. The intellectual property rights are retained by the company, with certain rights of use retained by the NHS and Department of Health and Social Care.

The application process is managed on behalf of NHS England and NHS Improvement by LGC Group. All applications should be made using the application portal which can be accessed through the Research Management System. Applicants are invited to consult the Invitation to Tender and the Portal Guidance;

a template Application Form and Frequent Asked Questions are also accessible. All documents are available on the SBRI Healthcare website to help prepare your proposal.

An online briefing event for businesses interested in finding out more about these competitions will be held on 24 August 2021. Please check the SBRI Healthcare website for confirmation of dates for this and any further events, information on how to register and details of the challenges that will be presented at the event.

Please complete your application using the online portal and submit all relevant forms by **1pm 13th October 2021.**

Key dates

Competition launch	24 August 2021
Briefing event	24 August 2021, Online
Deadline for applications	13 October 2021 (1:00pm)
Assessment	November 2021
Interview Panels	January 2022
Contracts awarded	February / March 2022

More information

For more information on this competition, visit: https://sbrihealthcare.co.uk/

For any enquiries e-mail: sbri@LGCGroup.com

For more information about the SBRI programme, visit:

https://www.gov.uk/government/collections/sbri-the-small-business-research-initiative

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