

What we already know

# THE EVIDENCE



THE IMPACTS OF  
SCREEN USE & SOCIAL MEDIA  
ON WHOLE-CHILD HEALTH



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# The risks of harm to children of Early Years (EYs) far outweigh any benefits



## LACK OF EVIDENCE OF BENEFIT

There is no evidence to support introducing technology at an early age. Babies need humans not screens.<sup>1</sup> The World Health Organization (WHO) states that children under two years old should not be exposed to any screen time.<sup>2</sup> This guidance is widely accepted across many other countries.<sup>3,4,5</sup>

The WHO's recommendations of 'very limited daily screen time for children under 5'<sup>6</sup> is also widely acknowledged, with a maximum of one hour per day advised and 'less being better'.

The reality:

**27%** of 3-4 year olds own their own smartphone.<sup>7</sup>

**40%** By age 2, 4 in 10 children have their own tablet.



under 2 years old average **1hr 3mins/day**.

2-4 year-olds spend **2hrs 8mins/day**.<sup>8</sup>

In EYs, the harm is from all screen usage, not just smartphones, and the content being accessed is not a differentiator.

## NEURO-DEVELOPMENTAL IMPACTS

Children aged 0-5 are in a 'time of significant growth and brain development' and it is a time when 'children are heavily dependent on their parent/carer.'<sup>9</sup>

There is now **causal** evidence that increased screen time negatively impacts a young child's development.

'We found a linear relationship, so the more screen time they were exposed to, the worse they fared in terms of outcomes, and that was most evident at the highest levels of screen exposure.<sup>10</sup> Certainly, what we have found is that the less screen time the better for children under 5. All of the research points to the critical importance of face-to-face interactions for children of this age - for learning language, social skills, and emotional skills.'

—  
Dr Megan Gath, PhD Senior Lecturer at University of Canterbury, New Zealand.

**Public Health Message (PHM) for families:** There is very limited evidence of the benefit of screens for under 5s. The advice should therefore be to stick to the daily screen time guidance as far as is possible. (Children are likely using screens more at home, so early years settings should focus on prioritising in-person interactions and play, which are essential for their development. Additionally, families who choose not to allow screens for their children should not have this choice undermined in early years settings, as the concept of media literacy for preschoolers is not established or evidenced as beneficial, and can cause unnecessary pressure for parents).

Evidence shows that higher digital use in preschool-aged children is associated with atypical brain development<sup>12</sup> and neural activity.<sup>13</sup> Longitudinal studies have also shown that excessive screen exposure may significantly contribute to the development of ADHD in children.<sup>14</sup>

Research indicates that early exposure to digital media is linked to increased atypical sensory processing in children.<sup>15</sup> Those who spend significantly more time on screens than their peers often exhibit symptoms resembling Autism Spectrum Disorder (ASD), including challenges in communication, delayed language development, slower cognitive and learning abilities, and inappropriate emotional responses. Studies have shown that autistic children are exposed to more screen time than their typically developing peers<sup>16</sup> or other clinical groups and that exposure starts at a younger age.

This has serious implications for these young children growing up, especially if they live in poverty. Older children with neurodiversity or learning disabilities or from deprived backgrounds have been repeatedly shown to be at an increased risk of harm online such as sexual exploitation and the most serious forms of child abuse.<sup>17,18,19,20,21</sup>

**PHM:** Parents of children who are predisposed to neurodiverse conditions or have existing diagnoses should be informed that these children may be at an increased risk of issues related to screen time. Parents should not be given false reassurance about the potential benefits of screen use, as these benefits have not been reliably proven. These families need **additional and specific** support in safely managing screens in their children's lives.

**COGNITIVE DEVELOPMENT**  
AND HOW IT IS IMPACTED BY SCREEN EXPOSURE

TV WATCHING	HIGH SCREEN TIME	TV DURING MEAL TIME	PARENTAL MEDIA USE
<p>Lower scores on cognitive</p> <p>Motor delays</p> <p>Lower in-class participation and academic success</p> <p>Poorer language processing</p>	<p>Lower communication</p> <p>Poorer problem-solving</p> <p>Delayed social development</p> <p>Negative impacts to mental processing</p>	<p>Lower verbal scores</p> <p>Poorer language processing</p>	<p>More time spent on the phones by parents leads to lower parent-child interactions, which are critical for cognitive and social development</p>

Infant screen use impacts the trajectory cognitive development beyond infancy, into later childhood and potentially even adulthood

## SCHOOL READINESS

These developmental issues and delays have consequences for school readiness. Studies show that children with higher screen usage are less ready for school,<sup>28</sup> particularly regarding language and cognitive development.

'Screen time during early childhood is predictive of the skills that children have on arrival to school, and the dramatic rise in screen use over recent years may partially explain why school readiness has been declining over recent years.'

—  
Dr Megan Gath PhD University of Canterbury, New Zealand.

These concerns extend to the UK with the alarming findings of the Kindred School Readiness Survey.<sup>29</sup> This report highlights 'a gulf between parent and primary school staff perceptions of school readiness.'

Health Professionals for Safer Screens (HPFSS) would argue that this same 'gulf' exists between what parents currently know about the harmful impacts of screens and what they should know. The NHS currently does not have specific guidelines for children's screen time or clear advice on "school readiness" as an important developmental milestone.

## IMPACTS ON SPEECH AND LANGUAGE

Speech and Language UK report<sup>30</sup> there are now

<b>1.9 MILLION</b>	<b>27%</b>
children with speech and language challenges in the UK	an increase of 27% in the past 2 years

Numerous longitudinal studies<sup>31 32 33</sup> provide strong evidence that increased screen time is linked to reduced language skills and developmental delays in communication among children. Early exposure to language significantly influences later linguistic abilities, cognitive development, and academic performance. Moreover, significant disparities in language exposure often correlate with a family's socioeconomic status.

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### A child with speech and language challenges is at risk of

<p><b>More mental health problems</b></p> <p><b>81%</b> of children with emotional and behavioural disorders have significant speech and language challenges, often unidentified.</p> <p><b>45%</b> of young people referred for mental health services have difficulties with language skills.</p>	<p><b>Worse literacy and numeracy</b></p> <p><b>6x</b> more likely to be behind in English.</p> <p><b>11x</b> more likely to be behind in Maths at 11 years old.</p> <p><b>14%</b> only 14% gaining a 9-6 pass at GCSE in English and Maths.</p>
<p><b>Increased offending</b></p> <p><b>60%</b> at least 60% of young offenders have language difficulties.</p>	<p><b>Less secure employment</b></p> <p><b>2x</b> more likely to experience insecure employment as adults.</p>

## Digital Dummies and Parental device use

Young children who are given devices to comfort them, ('digital dummies') are being shown to struggle later in life with self-regulating their emotions.

'According to my team's work, how and when screens are used with young children also matters. In particular, the use of mobile devices to soothe children or as a means to avoid a temper tantrum, is associated with worse child self-regulation in the long run.<sup>22</sup> Parent use of mobile devices is also a concern. Our work has found that greater parental screen time is associated with worse child global development and more internalising symptoms.'

—  
Professor Caroline Fitzpatrick, PhD. The Digital Lab, University of Sherbrooke, Quebec.

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**PARENTAL MEDIA HABITS & GLOBAL CHILD DEVELOPMENT**

Global Development? Motor, social, cognitive and language skills acquired by the child

**ACCORDING TO OUR STUDY**

Parents spent on average 6.35hr/day of recreational screen time.

Parental screen time when the child was 3.5 was associated with worse global development one year later.

**SOLUTIONS**

- Limit screen time when the child is present
- Adopt screen-free family activities

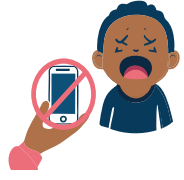
Many parents are currently unaware that their own screen use around their children carries its own risks to a child's healthy development. Research indicates that when parents spend too much time on their devices around preschool-aged children, it can negatively impact the child's overall development a year later.

The combination of parental device usage and the significant amount of time young children spend on screens is negatively affecting parent-child closeness.<sup>24 25</sup>

Research indicates that when parents use mobile devices while parenting, it can trigger a physiological stress response in infants.<sup>26</sup>

**PHM:** Avoid using devices to soothe young children, as it may reduce their emotional resilience. Additionally, limit parental screen time, as it can negatively impact a child's development and wellbeing. It is especially important to avoid any screen use, parental or otherwise, at children's mealtimes and bedtimes. Daily screen-free activities with children are also vital to their healthy development.

(New evidence<sup>27</sup> shows that parental screen use in front of children increases the likelihood of their exposure to age-inappropriate content and that proactive parental monitoring and setting limits on screen time were linked to less mature media consumption).



Early intervention for children with these difficulties is vital to prevent the worst outcomes, but in the UK 1 in 4 speech and language therapy posts are currently unfilled.<sup>35</sup>

'The number of children struggling with speech and language has now reached the point of crisis. Apps claiming to be educational, not only offer little or no benefit to young children,<sup>36</sup> but are potentially harmful in that they reduce opportunities for face-to-face interaction, essential for the development of good communication skills. Watching videos online, plus parental screen time, adds to the increasing amount of time that young children spend alone, which is detrimental to the development of their language, social skills and wellbeing.'

—  
Sandy Chappell, Paediatric Speech & Language Therapist, BA (Hons), HCPC Reg. MRCSLT, MASLTIP

**PHM:** Parents should be informed to avoid apps claiming to be educational unless they are evidence-based and endorsed by health experts. In-person interactions with children remain proven as the best way to develop their communication, social, and language skills.

## EDUCATIONAL ATTAINMENT AND LIFE CHANCES

The opportunity cost alone to children's lives is a very serious concern. Research shows that the average 12-year-old spends 29 hours a week, equivalent to a part-time job, on their smartphone.<sup>37</sup>

There is now evidence of what parents and teachers have long suspected, 'digital distractions' are dragging down many children's educational attainment.<sup>38</sup> A report in February 2025 from Parentkind<sup>39</sup> found 1 in 5 teenagers are disturbed daily by others using smartphones in lessons.

Children from disadvantaged backgrounds are more likely to be negatively impacted by technology interference<sup>40</sup> and they perform better academically when schools ban smartphones during the school day.<sup>41</sup> The observational Birmingham study<sup>42</sup> found no impact on grades by removing smartphones from the school day. However, the limitations of this study were acknowledged, such as only 20% of the restrictive schools have a full phone ban in place. Furthermore, one of the authors emphasised broader wellbeing issues that resonate more with the perspectives of teachers and parents; 'we did find a link between more time spent on phones and social media and worse outcomes, less physical activity and poorer sleep, lower educational attainment and a greater level of disruptive classroom behaviour. This suggests the reducing time spent on phones is an important focus.'<sup>43</sup>

There is little evidence that digital technology supports education,<sup>44</sup> yet the UK is one of the largest consumers of Edtech globally.

'Despite academics, campaigners and even UNESCO<sup>45</sup> raising the alarm, the DfE increasingly allows edtech designed on the same reward-loop principles with unproven pedagogical values and poor privacy practices into the classroom.'

—  
The Baroness Kidron OBE<sup>46</sup>

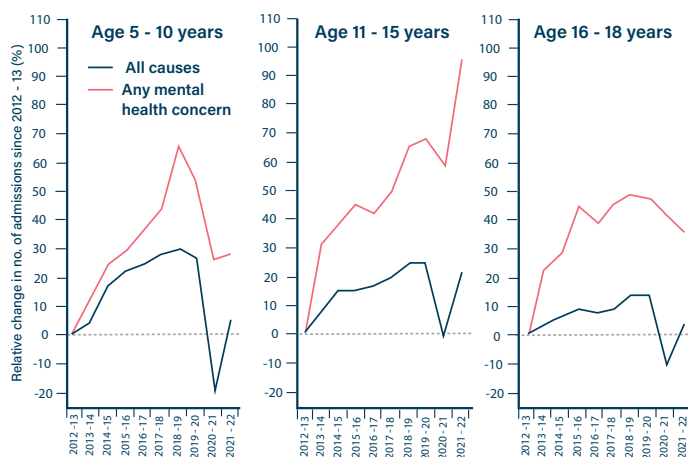
## ADOLESCENT MENTAL HEALTH

Adolescence is a period of life in which our sense of self, and particularly our sense of social self, that is how others see us, undergoes a profound transition. As teenagers become more conscious of how others perceive them, they often experience increased self-consciousness and self-criticism.

Social media can amplify this. With every post, like and comment, young people have to navigate a cycle of self-presentation and comparison, shaping their identities based on the curated, filtered lives fed to them by social media algorithms. Young people's evolving sense of self and what society expects of them are influenced and distorted by what they are exposed to both offline and online.

—  
Professor Sarah-Jayne Blakemore FBA FMedSci FRS  
Professor of Psychology and Cognitive Neuroscience University of Cambridge<sup>47</sup>

The number of children requiring admissions for mental health emergencies has significantly increased according to a recent UCL study<sup>48</sup> published by the Lancet. Increases in admissions were greatest among girls aged 11-15, rising from 9,091 to 19,349 (112.8% increase), and for eating disorders, rising from 478 to 2,938 (514.6% increase).



**500** children per day in England are referred to mental health services for anxiety.<sup>49</sup>

Children whose anxiety is serious enough to prompt a referral to mental health services are just the tip of the iceberg. There are many others not getting the support and help they need and mental health services simply cannot cope with this increased demand.

As of June 2024 **109,000** children and young people under the age of 18 were waiting over a year for community mental health services.<sup>50</sup>

Claire Murdoch, NHS England's National Mental Health Director, said "This generation of young girls has been under increasing pressures on competing fronts – from social media and cyber bullying to growing up through the once-in-a-century pandemic, there are new and emerging pressures that we haven't always had to manage in the past!"<sup>51</sup>

The scale of the issue is undeniable: many parents believe smartphones have disrupted their children's wellbeing. This sentiment has contributed to the popularity of Jonathan Haidt's book, "The Anxious Generation."

There has been much discussion about the link between excessive device use, social media use, internet use and mental health issues. Even though much research already exists, the UK government always wants more evidence on this topic. DSIT's recently commissioned work will report on a proposed methodology in May 2025<sup>52</sup> and is unlikely to report its conclusions before 2028.

### There is increasingly strong UK and international \*causal evidence:

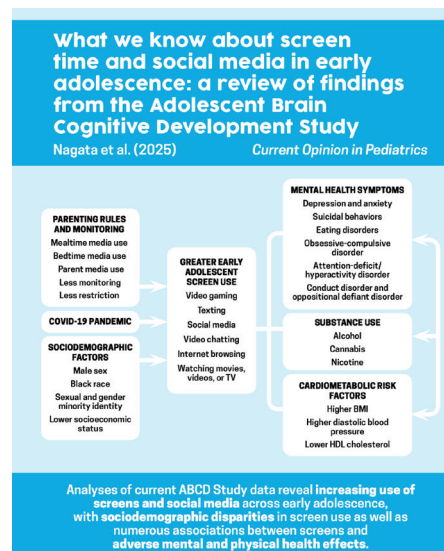
\* Between 1 in 3 to 1 in 10 young people are exhibiting problematic smartphone use (PSU). These are behaviours that are consistent with the symptoms of a behavioural addiction. Teens with PSU are twice as likely to have anxiety.<sup>53</sup>

\* Between the ages of 13 and 17, girls who spend more time online are linked to higher levels of major depression symptoms, as well as generalised and social anxiety. These results held up after controlling for possible reverse correlation, or the possibility that adolescents with worse mental health may choose to spend more time online.<sup>54</sup>

\* The early findings of Oxford University's Brainwaves study, have found a linear relationship between rates of anxiety and depression and time spent networking on social media sites.<sup>55</sup>

\* A recent Swedish study showed a causal link between screens, sleep and depression. It is estimated that the screen sleep disturbance could explain about half (38 per cent- 57 per cent) of the association between screen time and depression in girls.<sup>56</sup>

**PHM:** Parents should be aware of the growing issue of problematic smartphone use and the importance of managing their child's screen time. It's essential to note that girls aged 11 to 15 are particularly vulnerable to the negative effects of social media and excessive internet use on their mental wellbeing.



## ADDICTION

Children are particularly vulnerable to addictive-by-design applications. This concern is repeatedly expressed by clinicians who work with children, as they observe the negative impacts of this.

'Since the widespread adoption of smartphones in the early 2000s, ADHD diagnosis rates have seen a substantial relative increase of approximately 56%. Constant exposure to fast-paced, highly stimulating content, such as social media and video games, may contribute to attentional difficulties by conditioning the brain to expect frequent, rapid rewards, making it harder to sustain focus on less stimulating tasks.'

—  
Dr Federico Campos MD MSc  
Deputy Medical Director / Child, Adolescent & Adult Psychiatrist.  
The Giaroli Centre. Neurodevelopmental Psychiatry

'We are in the middle of a 'screndemic' which is severely affecting children from a young age. As a very experienced Paediatrician, I am seeing an increasing number of children in my clinic who are non-verbal, i.e. they speak virtually no words. This is because a very significant proportion of these children spend most of their waking hours in front of a screen, not speaking or interacting with caregivers, and are instead subjected to a passive experience of flashing images and sounds from a device.'

—  
Dr Sanjiv Nichani OBE  
Senior Consultant Paediatrician  
East Midlands Congenital Heart Centre and Leicester Children's Hospital. Honorary Senior Lecturer, University of Leicester College of Life Sciences

The troubling trend of our most vulnerable children being the worst impacted continues with manipulative design features in children's mobile apps. Research indicates that elements aimed at monetising these experiences are common, particularly in apps used by children from lower socio-economic backgrounds.<sup>58</sup>



## SLEEP



Sleep and mental health are inextricably linked and the negative impacts of device use on children's sleep of all ages is well established.<sup>59 60 61 62 63</sup> The majority of teens are not getting enough sleep.<sup>64</sup> Smartphones significantly impact sleep patterns and the ability to fall or stay asleep. Blue light, which impacts melatonin and circadian rhythms, has been shown to push sleep back twice as long as coffee, and doomscrolling means teens lose track of time.

Professor Lisa Henderson and Dr Emma Sullivan, Department of Psychology, University of York, the researchers leading the study in the channel 4 documentary 'Swiped - the school that banned smartphones,' had particularly significant findings relating to sleep; students in the phone ban group experienced notable improvements in their sleep quality and on average, were falling asleep 20 minutes faster than before the ban, and getting a full hour of extra rest each night. In contrast, the control group showed no such changes. The study also observed expected correlations between problematic social media use and sleep quality and duration, as well as connections between hours spent on social media and measures of anxiety, depression, and negative feelings.

*"The academic community has a real responsibility to gather and synthesise evidence on this critically important topic. A rapid response is crucial here, given the ever-changing digital environment. Our goal here was to demonstrate the kind of study that is needed to influence policy and educate young people on the benefits of smartphone abstinence."*

—  
Professor Lisa Henderson and Dr Emma Sullivan.

Recent research on sleep<sup>65</sup> has shown that **bedroom screen use** was the strongest predictor of children's exposure to mature media.

This study<sup>66</sup> showed that increased screen time led to deteriorated sleep within three months, impacting both the duration and quality of sleep. This leads to elevated depressive symptoms, particularly in girls.

**PHM:** Children aged less than five years old should not be on a device in the 2 hours before bedtime and for children over five it is 1 hour. Devices should not be in any child's bedroom overnight, to reduce the risk of them accessing age-inappropriate content or devices interfering with the quality or quantity of their sleep.

## EYESIGHT

**21%** Every additional hour of screen time daily increases myopia risk by 21%.

**54%** In children already diagnosed with myopia, an extra hour raises the risk of progression by 54%.<sup>67</sup>

### Outdoor time remains a crucial protective factor.

*"Childhood myopia globally has increased from 24% in 1990 to 36% in 2023 and this is expected to rise. New research<sup>68</sup> has found every extra hour a child spends on screens increases their risk of developing or worsening myopia—and that costs the NHS in spectacle vouchers, with 1 in 5 of children now affected by myopia in the UK. The science is clear: time spent outdoors helps protect young eyes as they grow and develop, while excess screen time increases their risk of myopia. We must help families find a better balance and champion the vital role of outdoor play in safeguarding children's vision."*

—  
Daniel Hardiman-McCartney MBE, FCOptom, FRSA

### Policy Implications

The issues we have now with increasingly younger children being on screens, often for hours per day, are much bigger and far-reaching than the somewhat circular conversation the UK government has become stuck in over teens' social media use and mental health (as important as this is).

We need the Department of Health, not just DSIT to take urgent notice of this evidence and correct the serious information and education debt for families that has been allowed to build up. Article 24 of the UN Child Rights Convention<sup>69</sup> makes clear that every child has the right to the best possible health. **It is more evidence of safety that is needed here, rather than an insatiable search for more evidence of harm.**

### Not all screens are the same

#### All screen and device use should not be conflated.

There is no need for a primary school-aged child to have an internet-enabled smartphone when there are safer alternatives<sup>70</sup> available for travel and communication with family and friends.

Children with medical needs, such as diabetes, may require an internet-enabled smartphone to install their continuous glucose monitoring application. However, this does not mean the device needs to have all the features of a regular smartphone, including social media apps - there are options already available.<sup>71</sup> Instead, it should be regarded as a "medical device" and labeled as such. This classification would allow it to be permitted in schools when medically necessary, regardless of stricter phone regulations in educational settings.

Primary school-aged children and younger teens may need to complete specific schoolwork on a laptop or play games on a console in a supervised area of the family home (not in their bedroom). This does not require them to own a personal smartphone.

# WHAT SHOULD WE BE DOING TO CREATE CHANGE?

## Suggested policy changes

to improve parental education and protection of children of early years from potential screen harms.

**Significantly change the language and framing of smart screen use for children.** Abandon terms such as 'digital health,' 'digital diets' or 'digital nutrition.' These terms are misleading in suggesting digital devices are needed for a healthy childhood. This is not evidenced, and the opposite is now proving to be true. Child health depends on adequate food, water, warmth, shelter and attention to emotional and physical needs, with plenty of indoor and outdoor play. **Digital terminology must not be conflated with child health terminology, particularly for children of early years whilst robust evidence of benefits remains outstanding.**

**Move away from pro-tech terminology for children of younger years at Ofcom level** to ensure a top-down influence in all related reports. Messages should be factual and tech-neutral. Avoid playful language that is misleading for parents. Terminology such as 'supervised explorers' for 3-4 year olds suggests that it is alright for children to be exploring the internet if a caregiver is present. This is a concern given only half of the parents of this age group said their main approach to online safety was to 'directly supervise' their child and 21% said their main approach was to 'talk to their child'.<sup>72</sup>

**Avoid using terms such as 'digital upskilling'<sup>73</sup> in the context of media literacy** for this age group when there is no evidence to support the importance or indeed need of this. It is misleading to parents and wrongly implies that children might 'need' screens at this young age in order to complete their learning and development, when the evidence and clinician observations to date suggest the opposite.

**Urgently demand Ofsted revise its appraisal process of screens in nurseries** that currently marks early years' settings down if digital media provision is not deemed adequate. This is not appropriate with so little evidence of the benefits of these devices for preschoolers, and the evidence to support no screens for children of 0-18 months is robust and increasing.

**Cut through confusing messages that conflate issues.** A short programme watched on TV with a family member is always better for a child than leaving them on a small device watching 'educational' or child content e.g. YouTube shorts. No toddler should ever be in possession of their own smartphone or have access to social media. Big screens are better, with no screens in bedrooms or at mealtimes. In addition, a visible-to-all health message from the NHS is needed to remind parents/carers of the importance of reading books to children to further their language and cognitive development.

## A suggested way forward

Health professionals have seen enough and do not require any more evidence to act. They are seeing the real-time impact of harms in their clinics on a daily basis - and this is across the general population, not at extremes. Their real experience needs to be included in the research that helps shape policy, and this research needs to be useful at ground level, improving the education of clinicians and helping them provide the right advice and support for their patients. The current barriers to a coherent governmental response, such as the idea that restricting usage during the school day or restricting access to some digital areas (social media before 16) will prevent children from coping in a digital world and be unable to transition, need to be evidenced as real rather than theoretical issues. Again, the evidence that restricting some access is particularly harmful for vulnerable populations needs to be evidenced, as the evidence that they are more at risk is increasing. Whilst there may be disagreement over causal links or legislative approaches,<sup>74</sup> everyone agrees that tech companies need to do more. It is also important that any policy developed should appreciate that there are distinct developmental windows<sup>75</sup> of sensitivity to social media in adolescence and how this might shape guidance for parents and teens regarding strategies for safe use.

We have a responsibility to implement the Precautionary Principle - instead of demanding more evidence of harm, we should be demanding evidence of safety by design. As Nature wrote, **finding ways to help young people navigate technology does not have to wait until its consequences are nailed down.**<sup>76</sup> Health Professionals for Safer Screens would support a legislative approach that commands social media platforms establish a child is 16 before allowing them access to social media, with severe penalties for the tech companies should they fail to achieve this. This is not about bans, it is about creating a more appropriate age limit for these platforms and making sure this is honoured in the interest of their safety, health and educational attainment.

We are also calling for a full NHS led public health campaign.



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