Continence Foundation of Australia

Early Years Strategy

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Introduction

The Continence Foundation of Australia (the Foundation) welcomes the development of an Early Years Strategy and the recognition of early childhood as a critical time to support children to achieve equitable and positive health and development outcomes.

The Foundation sees the Early Years Strategy as an important opportunity to reduce the risk of incontinence in children and enable all children to achieve their full developmental potential. There is good evidence that incontinence in childhood has negative impacts on mental and physical health, self-esteem and learning and development and can cast a long shadow forward, affecting health and life chances across the life course (see Attachment 1 for information on the impacts of incontinence on children and adolescents).

The Continence Foundation of Australia is the peak body for promoting continence (bladder and bowel control) health. The expertise of the Foundation includes policy and advice to support reform, education, health promotion, awareness, information and advocacy. This expertise and extensive experience enable the Foundation to represent the interests of individuals, carers and health professionals in relation to continence, at national and state levels.

The Foundation has consulted widely with members who work with children who are experiencing incontinence, and with their families to prepare this submission.

The Foundation's Recommendations

We acknowledge the existing burden on primary care services and the Federal Government's recent announcements for reform. In the aftermath of the acute phase of the pandemic there are equivalent challenges facing early childhood care, family support and education sectors in ensuring children and their families have the appropriate care and support they need for optimal health and wellbeing.

The following recommendations are distilled from the expert views of continence experts, working at the front line with children and families. They highlight effective and achievable ways of improving outcomes for children in their early years, particularly those who are most disadvantaged and excluded from the conditions they need to thrive. Current inequities in outcomes amongst children in their early years need to be addressed through strategies which deploy proportionate universalism. Actions should be universal but undertaken with an intensity and a scale that is proportional to the level of disadvantage (Francis-Oliviero et al., 2020). If implemented, these recommendations will improve the health and wellbeing of all Australian children whilst reducing unmet needs and demand on primary care, early years services and schools, reduce the stress on families and improve the mental health of parents.

1. **Federal, state and territory governments should commit to establishing integrated health and development checks for all children through Maternal & Child Health (MCH) services at three years old. These should include assessment of independent**

toileting, bladder and bowel dysfunction and referral to paediatric continence health care professionals, as required.

2. This universal approach of the Early Years Strategy should be accompanied by targeted approaches to support toilet training and independent toileting which address the higher needs and multiple disadvantages experienced by many children and families in rural and remote communities, and of children with disabilities.
3. The Federal Government should work with Aboriginal and Torres Strait Islander communities to ensure that children in those communities have full access to the proposed integrated health and developmental check at three years of age, and to identify and address delayed bladder and bowel control as a barrier to achieving all five developmental milestones in the Australian Early Development Census, in line with achieving Closing the Gap health and wellbeing targets.
4. The Federal Government should consult with the Continence Foundation of Australia as the national peak body, and the Foundation's network of front line clinicians and health promotion experts with specific expertise in continence health, to develop evidence-based information, support and advice about toilet training and bladder and bowel health, and to disseminate these resources to early years providers, family support services, schools, primary care and community health services to help them with toilet training and bladder and bowel health.
5. The Federal Government should commit to investment in, and development of, the continence specialist workforce and MCH services to support early childhood services, schools and health professionals in building their capacity -to identify issues related to bladder and bowel control in children and provide them with support on toilet training. This could include outreach from continence specialists and expansion of existing programs such as the School Readiness Program, currently operating in Victoria.
6. Ensure that the Early Years Strategy achieves significant improvement in the collection of data, particularly in relation to the incidence and impacts of incontinence. This is essential to contribute to the overall health and development in children to achieve to bladder and bowel control. Health surveys, including biometric health measurement surveys, should routinely collect data and evaluate and report on:
    - Data on the association between incontinence and a child's health and development
    - Data on the efficacy of prevention programs and interventions for delayed independent toileting.
    - Data on number of children commencing school before learning independent toileting and the impacts this has on their education.

The Foundation's response to the Early Years Strategy:

The Foundation welcomes the proposal to develop an Early Years Strategy which will assist Australia meeting its commitments under the UN Convention on the Rights of the Child, the Convention on the Rights of Persons with Disabilities, and the Convention on the Rights of Indigenous Peoples.

The development of an Early Years Strategy is an important step towards addressing the range of barriers and risks that prevent many Australian children from achieving their full developmental potential and will assist in achieving more equitable outcomes. The Foundation believes that an overarching framework will enable the Commonwealth to coordinate currently fragmented policy responses and interventions to address these challenges more effectively.

We are, however concerned that the necessarily high-level focus of this strategic approach will not consider the impact of specific factors, including conditions such as incontinence, that may impact negatively on children in the early years. Incontinence in children is under-researched, under reported and highly stigmatised. Yet bladder and bowel dysfunction and consequent failure to achieve toileting milestones can have severely detrimental impacts on children and families and the curtailment of activities including participation in education (Filce & LaVergne 2015).

Acknowledgement of the impact of lack of, or delay of, bladder and bowel control and implementing strategies and services to facilitate independent toileting, as well as prevent, manage and treat incontinence in children as they grow, is essential for a comprehensive approach to their health and development.

We support the frameworks identified to promote the health and well-being of children as useful underpinnings to ensure that a coordinated approach is adopted to support a child in all areas of life, including timely attainment of bladder and bowel control.

Significant work has been undertaken in other countries to ensure children have the best possible start in life. We commend the New Zealand's Child and Youth Wellbeing Strategy developed in 2019 (Department of Premier and Cabinet, NZ, 2019), which demonstrates commitment to ensuring all children have an equitable opportunity to achieve optimal health outcomes and developmental milestones. However, we note that this Strategy did not appear to identify independent toileting and bladder and bowel control health as a key area to be addressed through its implementation.

We also note that evaluation of the Strategy in 2022 (Department of Prime Minister and Cabinet, NZ, 2022)) identified the following areas for improvement:

- reducing child poverty and mitigating the impacts of socio-economic disadvantage
- enhancing child and whānau wellbeing in the first 1000 days

- addressing racism, discrimination and stigma
- enhancing the mental wellbeing of children and young people (a new priority)

While we believe the Australian Government can use this approach to inform its Early Years Strategy, we urge the Government to consider the learnings and key outcomes from the New Zealand experience, and to ensure the recognition and development of strategies to support all children to attain optimal bladder and bowel health.

Strategy Outcomes:

The Foundation seeks the following outcomes from the Early Years Strategy:

- Enablers that ensure all children have access to integrated health and development checks at 3 years old
- Investment in the specialist continence health workforce and services to support children and families, and the early childhood care, education, and health sectors
- Universal support from all early childhood sectors with targeted responses to children and families with higher needs, and who experience disadvantage.

Implementation of the Strategy

The Foundation recognises the innovation required to coordinate the complex sectors which need to intersect to deliver services to children in their early years, at all stages from policy development through to implementation and evaluation. We are concerned that these processes place more attention on policy design than on mechanisms for achieving the goals. The Foundation hopes that the Commonwealth Government will address the challenge of implementation at the same time as developing a strategic overview. Large scale change inevitably takes time to introduce and longer before its impact is felt. There is good evidence that involvement of the front line, charged with policy implementation, is vital to achieving policy success (Gilson et al, 2016). The Foundation is well positioned to contribute to the process of implementation to ensure practical, meaningful, and, above all, achievable steps are taken so that children can achieve the best possible health outcomes in the area of bladder and bowel control health.

Strategy priorities:

The Foundation agrees that an integrated and coordinated approach is essential to improving service delivery to children and their families, and to enhance responsibility and accountability for the health and development of Australia's children. Better system integration and coordination to improve system navigation for children and their families, as well as early identification and intervention is necessary to meet the needs of children and improve health outcomes.

A qualified workforce which is trained in continence issues for children would enhance the role of early childhood health, education and care, family support services in monitoring

developmental issues, coordinating between services and making referrals to specialist services/professionals where indicated.

The Foundation identifies the following priorities for the Early Years Strategy, which will support good continence health for children:

1. Better coordination between sectors and services to ensure effective prevention and early intervention to support independent toileting.
2. Supporting parents through evidence-based resources and information and access to health care professionals, including continence specialists, and clear and consistent messages on toilet training.
3. Prioritising children who are more likely to experience barriers to good continence health outcomes and consider the specific needs of First Nations and culturally and linguistically diverse communities, children with disabilities and from low socio-economic backgrounds.
4. Training and information for early childhood education and care workers and health professionals to enable them to respond to continence and toilet training issues.
5. Improved data collection on incontinence in childhood and adolescence.

1. Prevention and Early Intervention to Support Independent Toileting

Every child deserves the chance to be able to attain optimal independent toileting and have the choice about management strategies that make them feel comfortable and confident.

The ability to independently toilet is a key milestone in a child's development. A lack of bladder and bowel control, beyond the expected developmental period, can negatively impact a child's physical and mental health, as well as their learning and development (Education and Resources for Improving Childhood Continence (ERIC) 2016). Postponement in toilet training can also have health, economic, environmental and social impacts (Kaerts et al, 2012).

Urinary and faecal incontinence is common in childhood (Swithinbank et al, 2010). Research demonstrates that delays in gaining bladder and bowel control during the formative years impacts health and wellbeing in adolescence and adulthood if a preventative approach and early interventions are not implemented (Joinson et al. 2009). Particularly if poorly managed, incontinence can seriously undermine a child's quality of life, educational attainment and mental health outcomes (Cox, 2002).

In Australia it is acknowledged that a lack of bowel control at 4 years of age and lack of bladder control at 5 years requires assessment and intervention (Austin, et al., 2016). While it is acknowledged that bladder maturity may take longer in some children, the lack of monitoring and assessment to identify underlying issues that would benefit from early intervention can result in long term health and wellbeing issues for the child. Incontinence is considered a chronic condition when it continues to affect an individual for longer than 6 months.

Importance of early identification

Early identification of bladder or bowel dysfunction can mitigate the risk of poor health and wellbeing outcomes, including psychological wellbeing, for children who experience delayed bladder or bowel control.

Many children report that their urinary incontinence prevents them from participating in social activities, such as sleep overs, and contributes to feelings of anxiety and shame. A qualitative study which undertook semi-structured interviews with children aged between 8-17 years on their experiences with urinary incontinence during childhood found substantial emotional impacts associated with urinary incontinence (Malhotra et al. 2020).

> *It makes you feel like you're different. You're not like they are; you're different. You're not at the same level they are; you're under them somewhere … It's kind of like knowing that you're hiding this really ugly secret that you don't want anybody to find out … It's been a struggle.*
>
> Research participant's reflection on their experience of childhood incontinence (Malhotra et al. 2020)

While it is important to recognise that independent toileting may take longer for some children, identification of dysfunction and underlying issues that impact on bladder and bowel control should be prioritised.

Currently, the timing of Medicare funded visits to Maternal Child Health Nurses (MCHN) development checks vary between states and are difficult to access for working parents, leaving them with limited support and information on helping their child to achieve independent toileting. The provision of routine and timely health checks, which include identification of bladder and bowel dysfunction, delays in independent toileting, referrals and information on continence healthcare professionals, as well as contact with the Continence Foundation of Australia's National Continence Helpline (NCHL), will enable parents to obtain the information and tools needed to support their child to toilet independently, as well as identifying any underlying issues in achieving bladder and bowel control.

The provision of 3-year-old, and pre-school health and developmental checks by MCHNs and GPs, as are currently provided through Commonwealth 'Healthy Start to School' health checks, with the inclusion of assessment of independent toileting, identification of bladder and bowel dysfunction and referral to continence health professionals if required, would ensure that children receive timely and evidence-based continence care.

The Foundation recommends that:

1. **1. Federal, state and territory governments should commit to establishing integrated health and development checks for all children through Maternal & Child Health (MCH) services at three years old. These should include assessment of independent toileting, bladder and bowel dysfunction and referral to paediatric continence health care professionals, as required.**

2. Impacts of incontinence in high-risk groups

There needs to be a focus on children with greater need in the Early Years Strategy, and targeted strategies implemented to ensure children and families who experience high needs and disadvantage have access to continence services to support them to achieve optimal bladder and bowel health and wellbeing.

- Whilst data on the prevalence of incontinence in First Nations communities is limited, it is known that Indigenous populations experience chronic conditions at a higher rate than non-Indigenous populations, some of which places them at higher risk of experiencing incontinence (AIHW 2012). Data collection for this community is urgently needed.
- Families in high-risk groups face barriers to accessing information and appropriate continence support and care for children who are experiencing difficulties. This necessitates targeted supports, including information around proper nutrition and fluid intake to support children to achieve healthy bladder and bowel function.
- Children with autism spectrum disorder and other disabilities experience significant effects on health and developmental outcomes as a result of their incontinence, including physical and mental health disorders, and high rates of school absenteeism. Compared to typically developing children, children with additional needs have a higher likelihood of experiencing incontinence and this incontinence is more likely to persist into adulthood. The impacts of incontinence must inform strategies designed to improve health equity for children with disabilities (von Gontard et al. 2015).
- Children from rural and remote areas are at risk of not receiving the necessary support to address their needs. Improving access to specialist primary care services for children with additional needs, including those who require a continence assessment or support for underlying conditions is warranted to ensure that all children receive the care they need to achieve positive health outcomes.

The Foundation endorses the specific focus placed on the health and wellbeing of Māori children and their families in the New Zealand Child and Youth Wellbeing Strategy, as a potential model for increasing the outcome for First Nations children and addressing Closing the Gap targets. However, whilst the Foundation commends this approach of the New Zealand Strategy, we note that health and wellbeing outcomes associated with incontinence have not been identified.

The Foundation recommends that:

2. **This universal approach of the Early Years Strategy should be accompanied by targeted approaches to support toilet training and independent toileting which address the higher needs and multiple disadvantages experienced by many children and families in rural and remote communities, and of children with disabilities.**

3. **The Federal Government should work with Aboriginal and Torres Strait Islander communities to ensure that children in those communities have full access to the proposed integrated health and developmental check at three years of age, and to identify and address delayed bladder and bowel control as a barrier to achieving all five developmental milestones in the Australian Early Development Census, in line with achieving Closing the Gap health and wellbeing targets.**

3. Support for Families

Parents play an essential role in helping their child learn to independently toilet, however they often lack access to information, services and support for when their child is experiencing delayed bladder or bowel control, which can contribute to stress for parents of children with enuresis (day- or night-wetting) who are characterised as being more stressed than average (von Gontard et al. 2017). Accessible, evidence-based information and support for parents to understand normal bladder and bowel functioning in their child, is essential to equip them to support their child to attain independent toileting and to deal with the stressors that often arise during this period.

Family dysfunction, including impacts of trauma and stress, can contribute to difficulties in toilet training as well as impacting on the wellbeing of children. One study found almost 74% of mothers expressed abusive maternal attitudes towards children and adolescents with elimination disorders (ED) and bedwetting (Alpaslan et al. 2016). The rate of abusive maternal attitudes increased for children and adolescents who lived with low-educated parents or came from large, chaotic, divorced families and families who were of low socio-economic status, suggesting that the existing stressors of parenting were amplified when caring for a child with additional continence needs (Alpaslan et al. 2016). A study of 104 families of children with faecal incontinence found that 23 had severe and widespread difficulties, including sexual abuse (Silver, 1996).

Equipping parents with the tools and knowledge to help their child manage their bladder or bowel dysfunction may reduce stress for both the affected child and the parents, having a positive effect on family dynamics:

Lisbeth was a normally developing 4-year-old who attended kinder. Lisbeth figured out very early on that wetting her undies was not acceptable, so she learned to squat down when she experienced a precipitant overwhelming urge to wee. When asked what she was doing, she replied she was studying the ants. She had underlying bladder dysfunction which could be treated.
Explaining to Lisbeth and her parents what she was experiencing and the reason for it and the treatment pathway, changed the family dynamics and resolved frustration and anger within one consultation session.

Case seen by paediatric continence specialist

Improved information and support for toilet training practices

Current early childhood health and development practice encourages parents to wait for their child to demonstrate readiness for toilet training. This has resulted in the adoption of a wait and see approach to childhood incontinence, based on recognition that most children will achieve independent toileting over time. However later commencement of toilet training practices may have detrimental effects on children:

- In 2009, 51% of Australian children were toilet trained by 36 months old, a decrease from 97% during the mid-twentieth century (Christie. 2010).
- 19% of children beginning primary school in Sydney had experienced at least one episode of daytime wetting in the past 6 months, with 2% having 2 or more episodes per week (Sureshkumar et al. 2000)
- Toilet training after the age of 24 months is associated with persistent daytime urinary incontinence, whereas toilet training between 1-24 months led to more favourable outcomes (Joinson et al. 2008; Joinson et al. 2019).
- There is a rise in urinary tract infections in children, with researchers linking it to delayed toilet training over the previous half century (Bakker & Wyndaele 2000).

During the 2021-22 financial year, the Foundation's Continence Helpline received 1,436 calls seeking support and advice for issues related to paediatrics. The most common query that the Helpline received was around faecal soiling and toilet training habits and practices. The strong demand for information and advice on day-wetting and faecal soiling demonstrates a need for clear, evidence-based, and accessible information and support for parents and carers regarding bladder and bowel control in children.

Resources and support which equip parents to support their child in timely attainment of bladder and bowel control are needed, and the Early Years Strategy must recognise the stressors and emotional impacts involved in caring for a child with bladder or bowel dysfunction, and promote uptake of consistent, evidence-based and accessible information and support for parents and carers. The Foundation's expertise and experience as a health peak body makes it well positioned to develop and disseminate resources to assist parents support their child attain timely bladder and bowel control.

The Foundation recommends that:

4. **The Federal Government should consult with the Continence Foundation of Australia as the national peak body, and the Foundation's wide network of front line clinicians and health promotion experts with specific expertise in continence health, to develop evidence-based information, support and advice about toilet training and bladder and bowel health, and to disseminate these resources to early years providers, family support services, schools, primary care and community health services to help them with toilet training and bladder and bowel health.**

4. Building Capacity in Early Childhood Education, Care and Health Services

Early childhood educators and healthcare providers with expertise in paediatric health and development play an important role in monitoring the development of children and supporting the achievement of key milestones, including independent toileting, within an optimal period.

Effective Continence Treatment and Support

Early and effective treatment for incontinence has been shown to positively affect scores in quality of life in children, including areas such as self-esteem, mental health and body image. However, ineffective treatment has shown to have a negative impact.

A study by Bower (2008) found:

- Clinicians evaluate the non-clinical effects of lower urinary tract and bowel evaluation symptoms less than a quarter of the time, which highlights the need to provide training to clinicians on the psychosocial effects of bladder and bowel dysfunction in children, and the impacts that effective interventions can have on a child's quality of life.
- Children with multiple treatment failures report lower self-esteem.
- A child's perception of poor treatment efficacy can negatively impact quality of life, as well as willingness to engage in treatment.

A multi-disciplinary approach

The Foundation agrees that increasing accountability and service coordination is a significant step towards improving system navigation for families of children with complex and diverse needs.

The Foundation acknowledges the existing burden on primary care sector, and GPs.

We know that many GPs are ill-equipped to diagnose or manage incontinence, with an Australian study finding 43% of GPs received a moderate or higher level of training or education in urinary incontinence but only a low 9% for faecal incontinence. Additionally, 56% self-reported insufficient skills to address faecal incontinence highlighting large gaps in proficiency for both types of incontinence (Ng et al, 2021). A survey by the Foundation found that a concerning proportion of GPs believe that all children who experience bedwetting will be continent by age ten (Continence Foundation of Australia, 2017), which is not supported by evidence.

We highlight the recommendations set out in the Medicare Taskforce Report to address the barriers people face in accessing comprehensive care (Australian Government Department of Health 2022). Coordinated multidisciplinary teams working to their full scope of practice to provide person-centred care, with a focus on prevention and early intervention will enable the healthcare system to improve health outcomes in children in a timely manner.

Continence clinics in Victoria were established as sub-acute multi-disciplinary ambulatory care clinics from 1996 and were funded through state/public hospital funding. These clinics are still regarded today as world leading for their highly effective intervention and treatment of incontinence in adults, with experts advocating for a similar approach to treating bladder and bowel dysfunction in children.

The Foundation recommends that:

5. **The Federal government should commit to investment in, and development of, the continence specialist workforce and MCH services to support early childhood services, schools and health professionals in building their capacity to identify issues related to bladder and bowel control in children and provide them with support on toilet training. This could include outreach from continence specialists and expansion of existing programs such as the School Readiness Program, currently operating in Victoria.**

5. Addressing data gaps on childhood incontinence

Despite urinary and faecal incontinence being common in childhood, data on incontinence in children and adolescents is not collected routinely in Australia. Whilst there is a body of research focused on children, there is little data on clinical care (von Gontard 2017). This gap in research prevents supports and services from taking an effective, timely, and coordinated approach to tackling the health inequities which prevent Australian children from achieving the best possible health and education outcomes, as they transition from early childhood to school and into adolescence.

The Foundation recommends that:

6. **Ensure that the Early Years Strategy achieves significant improvement in the collection of data, particularly in relation to the incidence and impacts of incontinence. This is essential to contribute to the overall health and development in children to achieve bladder and bowel control. Health surveys, including biometric health measurement surveys, should routinely collect data and evaluate and report on:**
    - **Data on the association between incontinence and a child's health and development.**
    - **Data on the efficacy of prevention programs and interventions for delayed independent toileting.**
    - **Data on number of children commencing school before learning independent toileting and the impacts this has on their education.**

Conclusion

The development of an Early Years Strategy is welcomed by the Foundation, and we support its intention to enable Australian children and their families to achieve the best health outcomes possible. To realise the Strategy's preferred outcomes, consideration must be given to the impact of underreported yet highly stigmatising conditions on the health and wellbeing of Australian children and its detrimental effects across the life course, if prevention and early intervention strategies are not implemented.

We recognise that developing a system which is proactive and unified in its collective goal of achieving better health outcomes for children is not without its challenges, and that progress is not immediately apparent. The Foundation therefore urges the Government and departments to work in tandem with all actors, including healthcare workers, early childhood educators, and carers to develop an implementation plan that will enable the Strategy to take full effect.

The Foundation's experience and expertise as a health peak body makes us well positioned to assist the Government in developing an Early Years Strategy which will ensure all children have the opportunity to attain timely bladder and bowel control, and the improvements in health outcomes as a result of good continence health.

We look forward to the opportunity to contribute further to the development of the Early Years Strategy and its implementation.

Attachment 1 - Impacts of Incontinence on Children and Adolescents

Physical, social, emotional, and familial risk factors for incontinence in children and adolescents

There are a variety of physical, social, emotional, and familial risk factors for incontinence in children and adolescents.

- One Australian (Sureshkumar et al. 2000) study found that:
  - Moderate to severe daytime incontinence is strongly associated with a frightening or stressful event in the past 6 months.
  - Incontinence can also be associated with a history of daytime wetting among male siblings, and a history of daytime wetting in paternal lineage.
  - Severe nocturnal enuresis is strongly associated with daytime incontinence, faecal incontinence, bladder dysfunction and male gender. There is also an association with parental night wetting.
- Another study showed faecal incontinence is highly prevalent in children who experience sexual and physical abuse, as well as those with behavioural disorders (von Gontard et al. 2017).
- Data from the Avon Longitudinal Study of Parents and their Children (ALSPAC) study showed that adolescents (aged 13-14 years) who experienced urinary incontinence since childhood reported greater psychosocial problems compared to their peers who had developed greater bladder control. Adolescents who experienced a lack of bladder control were more likely to experience depressive symptoms, poor self-image, problems with peer relationships at school and negative perception of school and teachers (Grzeda et al. 2017).
- Children with faecal incontinence tend to feel less in control of positive life events and had a lower sense of self-esteem than children with other chronic conditions (Landman et al. 1986)

Impacts of delayed toilet training:

- Results from a project undertaken by UNSW demonstrates that in 2009, 51% of Australian children were toilet trained by 36 months old, a decrease from 97% during the mid-twentieth century (Christie 2010).
- A population-based, cross-sectional survey of children starting primary school in Sydney found that over 19% of children beginning primary school in Sydney had experienced at least one episode of daytime wetting in the past 6 months, with 2% having 2 or more episodes per week (Sureshkumar et al. 2000).
- A study conducted on adolescents and adults attending a public nocturnal enuresis clinic found significantly higher scores of childhood bladder and bowel dysfunction in this cohort than normative adults. The same study found significant associations between childhood urge syndrome symptoms and adult overactive bladder

symptoms, as well as childhood emptying dysfunction and adult voiding dysfunction (Bower, Sit & Yeung, 2006).

Association of incontinence with other conditions.

- Emerging research and strong anecdotal evidence demonstrate a causative link between the neurodiverse population of children with an autism spectrum disorder and childhood incontinence (von Gontard et al., 2015). The rate of incontinence is this neurodiverse population is significantly elevated and the impact on their lives cannot be overestimated inclusive of school absenteeism, and mental and physical health disorders.
- There is limited data on the association of childhood incontinence with adolescent psychosocial outcomes, however current evidence suggests that delayed attainment of continence in childhood can negatively impact psychosocial health in adolescents, even after continence is attained (Grzeda et al. 2017).
- Mental health disorders have been shown to be more prevalent in children aged 11 and 13 who experienced bed wetting until 11 years old, compared to children who gained bladder control by age 9 (Feehan et al. 1990).
- Data from the Avon Longitudinal Study of Parents and their Children (ALSPAC) study showed that adolescents (aged 13-14 years) who experienced urinary incontinence since childhood reported greater psychosocial problems compared to their peers who had developed greater bladder control. Adolescents who experienced a lack of bladder control were more likely to experience depressive symptoms, poor self-image, problems with peer relationships at school and negative perception of school and teachers (Grzeda et al. 2017).
- A study on the trajectories of urinary incontinence in childhood (Heron, Grzeda & von Gontard 2017) found five trajectories of urinary incontinence from 4 to 9 years:

  (1) normative development of daytime and night-time bladder control (63.0% of the sample),
  (2) delayed attainment of bladder control (8.6%),
  (3) bedwetting alone (no daytime wetting) (15.6%),
  (4) daytime wetting alone (no bedwetting) (5.8%) and
  (5) persistent wetting (bedwetting with daytime wetting to age 9) (7.0%).

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