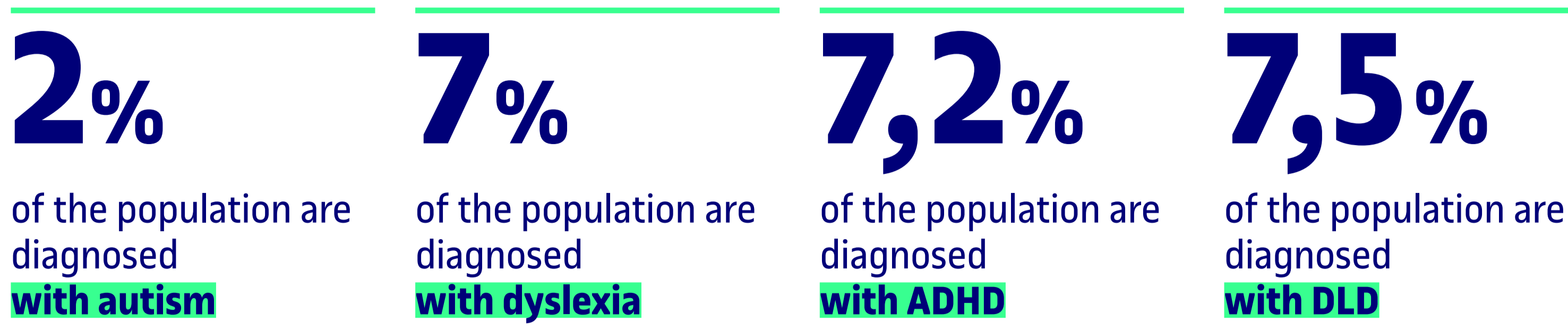


Uses and applications of eHealth in Neurodevelopmental Disorders (NDDs)

Neurodevelopmental Disorders (NDDs).



Definition	The most common NDDs	Consequences/impact on the person
NDDs are a group of disorders affecting the development of the nervous system which appear in childhood and cause deficits in various functional domains, such as cognition, language, social development, motor function and behavioural control.	<ul style="list-style-type: none"> • Communication disorders (SPD, SLI/DLD) • Specific learning disorders (dyslexia, dysgraphia, dyscalculia) • Intellectual disability (ID) • Autism spectrum disorder (ASD) • Attention deficit hyperactivity disorder (ADHD) • Neurodevelopmental motor disorders 	<ul style="list-style-type: none"> • A long-life disorder: they affect children and their families from early development through to adulthood • Language and communication problems • Cognitive difficulties • Behavioural problems • Social problems • School failure • High cost for society: the chronic nature of these conditions represents a significant health and cost burden for families and society

eHealth in NDDs: the situation today

- Apps, robots, gaming, videos and virtual reality are being used in NDDs.
- Used for detection, assessment, monitoring, diagnosis and treatment.
- Need for research and more scientific evidence to support their effectiveness and the clinical settings.

NeuroDevelop eHealth Lab (GRECIL)

<p>It focuses its research and knowledge transfer on the field of digital health applied to neurodevelopmental disorders (NDDs).</p> 	<p>It forms part of the Cognition and Language Research Group (GRECIL).</p> 	<p>The NeuroDevelop eHealth Lab is attached to the UOC's eHealth Center.</p> 
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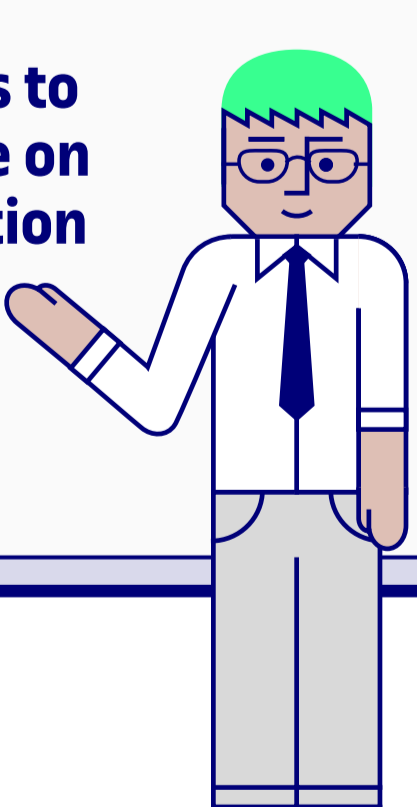
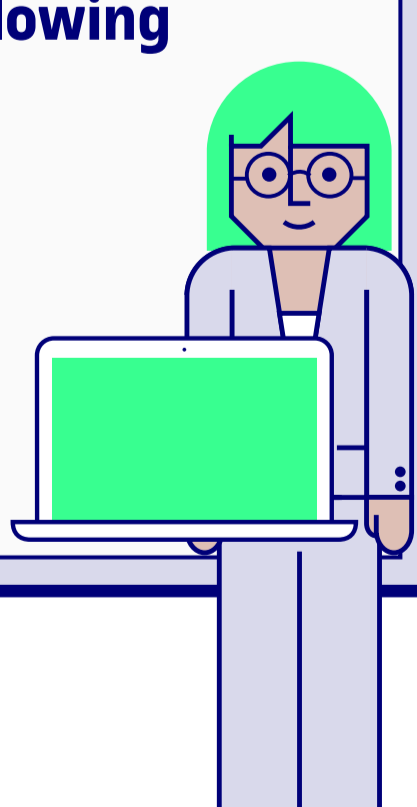
Team



Research

<p>DIGITAL SOLUTIONS:</p> <p>Create, implement, and evaluate digital solutions:</p> <ul style="list-style-type: none"> • To improve the early detection of children with NDDs Simpler, less time-consuming and cheaper assessment tools • To improve children's treatment based on neurorehabilitation and the observation of progress (monitoring) 	<p>HEALTH LITERACY:</p> <p>Create a multimedia website with truthful and evidence-based information about the main NDDs to inform parents and professionals.</p>
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Scientific goals

<p>One of the main objectives of the eHealth Center is to provide evidence on how the application of technology improves the health system</p> 	<p>The NeuroDevelop eHealth Lab's research aims to promote randomized control trials that analyse and check the following criteria:</p> <ul style="list-style-type: none"> • Clinical effectiveness • User's impact, feasibility, and acceptability • Readiness for clinical adoption • Service delivery efficiencies and economic impact 
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Achievements

International benchmark group in research into various NDDs, such as developmental language disorder (DLD), dyslexia, autism and intellectual disability.



Contact



***** The mission of the eHealth Center, the Universitat Oberta de Catalunya's digital health research centre, is to foster research and innovation in digital health in a cross-disciplinary manner at the University so it can become an agent of social change that drives a transformation of the health system.