**Abstract:**

**Objective:** To investigate mental health outcome and the associations of that with neurodevelopmental disabilities (NDD) in extremely preterm/extremely low birth weight children at 5 and 11 years of age.

**Design:** A national population based cohort of all the extremely preterm (EP- born <28 weeks) and extremely low birthweight children (ELBW- birth weight < 1000 grams) born in Norway in 1999-2000 were targeted. At 5 years of age parents filled out questionnaires regarding general mental health problems and symptoms of Attention Deficit/Hyperactivity Disorder (ADHD). In addition, the EP/ELBW children were examined by a pediatrician, physiotherapist and a psychologist to establish the NDD level. NDD is defined as cognitive impairment, motor problems, cerebral palsy, and hearing- and visual impairments. NDD were classified into no, mild, and moderate/severe depending on severity of the impairments. At 11 years of age parents and teachers filled out questionnaires regarding symptoms of general mental health problems, ADHD, Autism, Anxiety, and Obsessive-compulsive disorder (OCD) for the child. The reference group at 5 years of age was all 5 years old children attending the scheduled routine public health care program in Oppland County in 2006, and at 11 years of age the Bergen Child Study contributed as reference group with all 11 years old children attending public or private schools in the municipality of Bergen in 2006.

**Results:** At 5 years of age EP/ELBW children were at 5-8 fold increased risk of general mental health problems such as emotional-, hyperactivity/inattention-, conduct- and peer problems compared to the control children. The risk increased with increasing severity of NDD. The EP/ELBW children with no NDD were at a 3-5 fold increased risk of mental health problems. At 11 years of age EP/ELBW children without severe NDD were at increased risk of general mental health problems, and more specific problems such as: symptoms of ADHD, Autism, Anxiety and OCD. The increased risk was 2-8 fold.

**Conclusion:** EP/ELBW children in preschool and school age are at increased risk of mental health problems, and school age EP/ELBW children are at increased risk of symptoms of ADHD, Autism, Anxiety and OCD. Increasing severity of NDD increases the risk of mental health problems. EP/ELBW children regardless of NDD status are at increased risk of mental health problems.