### Methods

Using the data registered by the Local Healthy Agency from 2004 to 2014, we calculated the prevalence of ASDs for 0-17 year-old children and estimated its trend across two period (2004–2009 to 2010–2014). We examined the age at initial diagnosis in all children diagnosed with ASDs from 2004 to 2014.

## Results

From 2004 to 2014, the registered cases 0–17 year-old were 1122 (79,8% boys). The prevalence of ASDs per 10,000 was 4.8 (95%CI = 1,3–11,0) (M = 7.5; 95%CI = 3.1–15.1; F = 2.0; 95%CI = 0.3–8.1). From 2004–2009 to 2010–2014, the identified prevalence of the ASDs per 10,000 showed significant increases (4.5; 95%CI = 1.3–11,0; 5.2 95%CI = 1.8–12). The median (IQR) age at diagnosis of ASDs was currently 4 (3–8) years. From 2004–2009 to 2010–2014, median (IQR) age at diagnosis decreased from 5 (3–9) to 4 (3–7). A significant higher median age at diagnosis was observed in rural area than in urban area (7vs5 years; p < 0,001)

## Conclusions

Our findings reflect the official prevalence for registered ASDs, however we foresee that it might be higher in our country. There was a substantial gap between the age at which an accurate diagnosis of ASDs is possible and the average age that children are currently diagnosed. Early detection and treatment are two of the most important factors optimizing outcome. Moreover, diagnosis is typically a necessary condition for families to have access to early treatment so reducing age of diagnosis has become one of the greatest priorities of the field.

## Key messages

- Autism spectrum disorders can be ameliorated through intensive early targeted autism-specific services
- Actually children are identified at a later age and are not able to access early interventions promptly

#### Prevalence and age at diagnosis of Autism Spectrum Disorder in south Italy, 2004–2014 Maria Fiore

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### Background

The prevalence of autism spectrum disorders (ASDs) has increased markedly in recent decades. The early diagnosis of children with ASDs is a critical step in gaining access to early intervention, providing optimal opportunity for developmental benefits by taking advantage of early brain plasticity. However, data at the national level are limited. The aim of the study was to estimate the prevalence and age at diagnosis of ASDs in children living in Catania.