Background
Suicide among children is considered as a rare event, but is still a leading cause of death in children younger than 15 years of age worldwide (Vajani et al. 2007). The highest suicide rates for boys in age group 5-14 have been found in Russia (3.0 per 100,000 – mean of 1996-2005) and Baltic States (Estonia 2.5, Latvia 2.0 and Lithuania 1.7 per 100,000). For girls, the suicide rates were highest in Ecuador (1.5 per 100,000), Russia, Bulgaria and Korea (all 0.8 per 100,000). Most of the countries had higher suicide rates in boys. However, only Asian countries (e.g. Korea and Singapore) had higher suicide rates for girls (WHO/SIS database). The suicide rates in Australia were 0.4 per 100,000 for boys and 0.3 for girls.

Literature indicates that suicide might be more under-reported among children compared to adolescents and adults (Crepeau-Hobson 2010). This might be due to:

* social stigma and shame around suicide,
* coronial reluctance to determine a verdict of suicide in a child,
* disparities in death classification systems between states and countries, and/or
* the misconception that children are precluded from engaging in suicidal acts due to their cognitive immaturity.

However, based on research, children from age eight have the understanding of the concept of suicide (Mishara 1998).

Despite growing research interest in suicide, few studies have focused specifically on suicide in children. However, the main risk factors in children can be divided into three categories (Fig 1)

**Objectives**
Analysis aims to identify demographic, psychosocial and psychiatric factors of suicide in QLD children compared to older age groups for the period 1990-2006.

**Methodology**
Data from the Queensland Suicide Register (QSR) will be examined. The QSR is a comprehensive suicide database maintained by the Australian Institute for Suicide Research and Prevention (AISRAP). The QSR holds records of all suicides in Queensland since 1990 and provides information on a wide range of demographic, psychosocial, psychiatric, medical, contextual and behavioural aspects of suicide death cases.

Between 1990 and 2006, 644 youth suicides were recorded in the QSR:

- 60 of children aged 10-14 years;
- 584 of adolescents aged 15-19 years.

**Results**
In 1990-2006, the mean suicide rate in age group 10-14 years was 1.23 per 100,000 for males and 0.88 for females (RR=1.39); and was 15.62 for males and 5.50 for females (RR=2.84) in the age group 10-14 years. Hanging was the most frequent suicide method in both age groups; however, it was significantly more frequent in the age group 10-14 years (Fig 2). Those aged 15-19 years used more often firearms, motor vehicle CO and other methods ($\chi^2=26.7; df=4; p<0.001)$.

There were significant differences by the ethnicity ($\chi^2=6.3; df=1; p=0.012$); the suicide victims of the younger age group were more frequently Indigenous compared to older age group (35.3% vs 19.2%).

Analysis of the toxicology reports showed that suicide victims aged 15-19 years consumed alcohol more frequently prior to death than the younger group (18% vs 41%). In total 19% of the younger age group and 22% from the older age group had a life-time history of psychiatric disorders (Tab 1). The most frequent diagnosis was unipolar depression in both age groups. Only developmental disorder was significantly more frequent in younger group.

Table 1. Life-time history of psychiatric disorders

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>10-14</th>
<th>15-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any diagnosis</td>
<td>11</td>
<td>19.3</td>
</tr>
<tr>
<td>Unipolar depression</td>
<td>5</td>
<td>8.8</td>
</tr>
<tr>
<td>Bipolar disorder</td>
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<td>0.0</td>
</tr>
<tr>
<td>Anxiety</td>
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<td>1.8</td>
</tr>
<tr>
<td>Developmental disorder</td>
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<td>5.3</td>
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<tr>
<td>Eating disorder</td>
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<tr>
<td>Psychotic disorder</td>
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<td>0.0</td>
</tr>
<tr>
<td>Substance use disorder</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Conduct disorder</td>
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<td>0.0</td>
</tr>
<tr>
<td>Personality disorder</td>
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<td>0.0</td>
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<tr>
<td>Adjustment disorder</td>
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<td>0.0</td>
</tr>
<tr>
<td>Other or vague disorder</td>
<td>2</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Recent stressful life events are presented in Fig 3. A life event was reported in 45.6% of those aged 10-14 and 53.9% of those aged 15-19 years. The most frequent life events were familial conflicts in age group 10-14 and relationship problems in age group 15-19 years.

**Conclusions**
Children compared to adolescents who committed suicides
* used more often hanging,
* were more frequently Indigenous,
* were less exposed to some types of stressors (relationship problems),
* had more conflicts with parents and school problems.

There is no doubt that the phenomenon of child suicide deserves more attention. In fact, little is known about children’s specific pathways, the developmental process that influences suicide in them, and which issues need to be addressed in future suicide prevention programs.

**Acknowledgement**
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**References**