The WHO Child and Adolescent Mental Health Atlas, published in 2005, reported that child and adolescent mental health services (CAMHS) in Europe differed substantially in their architecture and functioning. We assessed the characteristics of national CAMHS across the European Union (EU), including legal aspects of adolescent care. Using an online mapping survey aimed at expert(s) in each country, we obtained data for all 28 countries in the EU. The characteristics and activities of CAMHS (ie, availability of services, inpatient beds, and clinicians and organisations, and delivery of specific CAMHS services and treatments) varied considerably between countries, as did funding sources and user access. Neurodevelopmental disorders were the most frequent diagnostic group (up to 81%) for people seen at CAMHS (data available from only 13 [46%] countries). 20 (70%) countries reported having an official national child and adolescent mental health policy, covering young people until their official age of transition to adulthood. The heterogeneity in resource allocation did not seem to match epidemiological burden. Substantial improvements in the planning, monitoring, and delivery of mental health services for children and adolescents are needed.

Methods
Survey sample
We identified child psychiatrists and representatives of national child psychiatry associations within each of the 28 EU member states with the help of the WHO Regional Office in Copenhagen, Denmark, and the coordinator of the WHO Child Atlas project. In eight countries (Belgium, Croatia, France, Germany, Ireland, Italy, the Netherlands, and the UK), the survey was completed by the MILESTONE Principal Investigator or by a member of their team. The full affiliations of respondents are shown in the appendix. We invited individuals to participate by email; if we did not obtain a reply after three approaches, or if we received a negative answer, we invited another expert. We chose alternative experts on the basis of suggestions from previously approached individuals or from Dr Matt Muijen, Dr Myron Belfer, and the MILESTONE principal investigators (SPS, TF, AM, FM, DP-O, US, and ST).

Assessment instruments
We adapted the European Service Mapping Schedule to create the European CAMHS Mapping Questionnaire (ECM-Q; appendix), which was designed to aid the description and classification of mental health services and to allow measurement of service use. The ECM-Q integrates many of the domains used in the WHO CAMHS Atlas. The ECM-Q was finalised after multiple revisions following internal review within the MILESTONE team and consideration of advice from external experts. We developed a dedicated web domain in collaboration with an Italian software company (Kema SNC, Brescia, Italy) to allow respondents to complete the ECM-Q.
CAMHS was defined as a specialist, community-based, multidisciplinary, mental health service, with one director or consultant, delivering medical and psychosocial interventions for children and adolescents with mental health problems and disorders, or neuropsychiatric or developmental disorders, within a specified catchment area. Young people were defined as younger than 18 years or the legal transition boundary age.

### Findings

#### Data collection

We collected data between Oct 1, 2014, and March 31, 2015, and did quality control from May 1, 2015, to Sept 30, 2015. We approached 34 individuals and obtained responses from one respondent in each of the 28 EU countries. Each respondent was allowed to ask colleagues in their country for assistance with survey completion (the

<table>
<thead>
<tr>
<th>Country</th>
<th>Total population (100 000)*</th>
<th>Proportion of population younger than the legal transition boundary (18 years; %)†</th>
<th>Number of public CAMHS</th>
<th>Number of paediatric beds per 100 000 young people</th>
<th>Number of inpatient beds in child and adolescent psychiatric units</th>
<th>Number of CAMHS per 100 000 young people</th>
<th>Number of child and adolescent psychiatrists per 100 000 young people</th>
<th>Number of child and adolescent psychologists per 100 000 young people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>84.0</td>
<td>18%</td>
<td>11</td>
<td>21.0</td>
<td>317</td>
<td>0.7</td>
<td>6.0</td>
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<tr>
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<td>20%</td>
<td>53</td>
<td>29.0</td>
<td>650</td>
<td>2.4</td>
<td>11.1</td>
<td>-</td>
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<td>73.6</td>
<td>16%</td>
<td>6</td>
<td>4.0</td>
<td>48</td>
<td>0.5</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Croatia</td>
<td>42.8</td>
<td>19%</td>
<td>10</td>
<td>8.8</td>
<td>70</td>
<td>1.3</td>
<td>6.3</td>
<td>3.1</td>
</tr>
<tr>
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<td>8</td>
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<td>5.1</td>
<td>8.3</td>
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<tr>
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<td>17%</td>
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<td>0.8</td>
<td>6.8</td>
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<td>18.5</td>
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<td>1.1</td>
<td>10.3</td>
<td>22.4</td>
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<tr>
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<td>18%</td>
<td>5</td>
<td>21.0</td>
<td>50</td>
<td>2.1</td>
<td>16.8</td>
<td>25.2</td>
</tr>
<tr>
<td>Finland</td>
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<td>20%</td>
<td>140</td>
<td>32.3</td>
<td>350</td>
<td>12.9</td>
<td>36.0</td>
<td>36.9</td>
</tr>
<tr>
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<td>649.3</td>
<td>20%</td>
<td>383</td>
<td>16.4</td>
<td>2107</td>
<td>3.0</td>
<td>9.1</td>
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<td>16%</td>
<td>537</td>
<td>64.0</td>
<td>8400</td>
<td>4.1</td>
<td>8.0</td>
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<tr>
<td>Greece</td>
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<td>16.3</td>
<td>-</td>
</tr>
<tr>
<td>Hungary</td>
<td>99.4</td>
<td>18%</td>
<td>55</td>
<td>7.7</td>
<td>139</td>
<td>3.1</td>
<td>3.4</td>
<td>8.4</td>
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<tr>
<td>Ireland</td>
<td>45.7</td>
<td>25%</td>
<td>60</td>
<td>5.2</td>
<td>60</td>
<td>5.2</td>
<td>5.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Italy</td>
<td>594.3</td>
<td>17%</td>
<td>210</td>
<td>3.2</td>
<td>324</td>
<td>2.1</td>
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<tr>
<td>Latvia</td>
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<td>17%</td>
<td>19</td>
<td>39.0</td>
<td>140</td>
<td>5.2</td>
<td>11.2</td>
<td>-</td>
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<tr>
<td>Lithuania</td>
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<td>19%</td>
<td>5</td>
<td>31.5</td>
<td>180</td>
<td>0.9</td>
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</tr>
<tr>
<td>Luxembourg</td>
<td>5.1</td>
<td>21%</td>
<td>2</td>
<td>32.6</td>
<td>35</td>
<td>3.9</td>
<td>21.4</td>
<td>65.3</td>
</tr>
<tr>
<td>Malta</td>
<td>4.2</td>
<td>16%</td>
<td>2</td>
<td>18.0</td>
<td>12</td>
<td>3.0</td>
<td>3.0</td>
<td>-</td>
</tr>
<tr>
<td>Netherlands</td>
<td>166.6</td>
<td>21%</td>
<td>113</td>
<td>56.6</td>
<td>1981</td>
<td>3.2</td>
<td>10.7</td>
<td>-</td>
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<tr>
<td>Poland</td>
<td>380.4</td>
<td>19%</td>
<td>178</td>
<td>18.2</td>
<td>1300</td>
<td>2.5</td>
<td>3.5</td>
<td>-</td>
</tr>
<tr>
<td>Portugal</td>
<td>105.6</td>
<td>18%</td>
<td>34</td>
<td>13.1</td>
<td>24</td>
<td>1.8</td>
<td>5.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Romania</td>
<td>201.2</td>
<td>19%</td>
<td>-</td>
<td>17.9</td>
<td>688</td>
<td>-</td>
<td>3.1</td>
<td>-</td>
</tr>
<tr>
<td>Slovakia</td>
<td>54.0</td>
<td>19%</td>
<td>37</td>
<td>21.5</td>
<td>220</td>
<td>3.6</td>
<td>3.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Slovenia</td>
<td>20.5</td>
<td>17%</td>
<td>34</td>
<td>13.1</td>
<td>46</td>
<td>9.7</td>
<td>6.0</td>
<td>15.4</td>
</tr>
<tr>
<td>Spain</td>
<td>468.2</td>
<td>18%</td>
<td>201</td>
<td>2.4</td>
<td>204</td>
<td>2.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sweden</td>
<td>94.8</td>
<td>20%</td>
<td>20</td>
<td>1.2</td>
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<td>1.0</td>
<td>23.4</td>
<td>104.2</td>
</tr>
<tr>
<td>UK</td>
<td>631.8</td>
<td>21%</td>
<td>939</td>
<td>9.4</td>
<td>1264</td>
<td>7.0</td>
<td>4.5</td>
<td>-</td>
</tr>
</tbody>
</table>

CAMHS=child and adolescent mental health services. *Eurostat data. †Young people were defined as younger than 18 years or the legal transition boundary age. ‡Legal transition boundary at 17 years. §Legal transition boundary at 16 years.

Table 1: Demographics and the capacity of CAMHS per 100 000 young people

The total population and proportion of young people younger than the national legal age of majority for each country were derived from Eurostat databases* by GS and GdG.

Data were collated in Microsoft Excel 2013 (Microsoft Corporation, Redmond, WA, USA), imported into Stata 13 (StataCorp, College Station, TX, USA) for cleaning and analysis, and analysed and presented by JW and JG using appropriate descriptive methods.

For more on the MILESTONE project see http://www.milestone-transitionstudy.eu

See Online for appendix
names of those colleagues are included in the appendix). More than 95% of survey items were completed. After questionnaire completion, some data were missing for 20 countries and were ambiguous for 11 countries. Each respondent in these countries was sent a detailed list of country-specific queries to complete or clarify figures. At the end of this quality check, we were still unable to obtain a response from six countries (Estonia, Finland, Malta, Romania, Slovenia, and Sweden).

Information was obtained by respondents from official national statistics or service reports (for 18 [64%] countries), by consultation with colleagues or experts (for 11 [39%] countries), from personal knowledge of the field (for ten [36%] countries), and through web searches (for one [4%] country). Respondents from 16 (57%) of the 28 countries were able to provide references (eg, publications, websites, national reports) containing information about the organisation of CAMHS or the epidemiology of child and adolescent mental health disorders in their country (see ECM-Q question 10 in the appendix).

Provision of CAMHS

Young people constituted about a fifth (average for the 28 countries was 19%) of the general population in Europe: Bulgaria, Germany, and Malta had the smallest proportion of young people (16%) and Ireland had the largest (25%; table 1). The age of majority was 18 years for most countries (25 [89%] of 28 countries), except for Cyprus (where the age of majority was 17 years) and Malta and France (where the age of majority was 16 years).

The number of public CAMHS varied considerably across the countries, from two each in Malta and Luxembourg to 939 in the UK (table 1, figure 1). The number of public CAMHS relative to the target population ranged from 12·9 per 100 000 young people in Finland to 0·5 per 100 000 young people in Bulgaria. We did not collect information about how services were delineated, so a service might have been made up of many teams and worked across diverse settings.

There was substantial heterogeneity among the 28 countries in terms of the availability of inpatient beds, from fewer than two beds per 100 000 young people in Portugal and Sweden to more than 50 beds per 100 000 young people in Germany and the Netherlands (table 1, figure 2). The number of child and adolescent psychiatrists per 100 000 young people varied from 1·9 in Bulgaria to 36·0 in Finland (table 1). The number of child and adolescent psychologists per 100 000 young people was generally higher than that of child and adolescent psychiatrists (except for Bulgaria, Croatia, Czech Republic, Ireland, Portugal, and Slovakia).

25 (89%) of the 28 countries had a juvenile justice system that, in 16 (64%) of these countries, enabled connections with specialised or dedicated forensic CAMHS. Specialised educational services for young people were available in most countries (appendix).

![Figure 1: Number of child and adolescent mental health services per 100 000 young people in European Union countries](image1)

![Figure 2: Number of inpatient beds per 100 000 young people in European Union countries](image2)

The availability of specific facilities providing community outpatient mental health care to children and adolescents was rated by respondents as absent or insufficient in the context of public health or primary care clinics (16 [59%] of 27 countries), outpatient clinics (17 [61%] of 28 countries), day patient programmes and respite-care placements (21 [75%] of 28 countries), and group homes (22 [79%] of 28 countries; appendix). Only about half of the countries that responded had private
specialist services (13 [48%] of 27 countries) and foster-care placements (of different types; 15 [54%] of 28 countries). In Croatia, the Netherlands, and Poland, outpatient care was also provided by non-governmental organisations, dedicated youth and family (offering parenting support) centres, or community services (delivering assertive community treatment).

Respondents from 14 (50%) of the 28 countries reported that CAMHS offered language interpreters for patients who were unable to speak the national language, either for diagnostic assessment (in 14 [50%] countries) or for care delivery (in 12 [43%] countries). Respondents from 11 (39%) of the 28 countries reported only having such services available in restricted geographical areas, whereas respondents from four (14%) of the 28 countries reported having none for diagnostic assessment and respondents from five (18%) of 28 countries reported having none for care delivery (appendix).

CAMHS opening hours varied considerably across the EU, ranging from 2 h per day in Estonia to 12 h per day in Romania, from Monday to Friday, with a mean of 7·76 h per day (SD 1·8; appendix). Mobile emergency (24 h a day) CAMHS teams were only available in 12 (43%) of the 28 countries and, in ten (36%) countries, were active only in some areas.

**Collaboration with other services**

12 (43%) of the 28 countries had a national protocol or agreement between schools and health services to facilitate appropriate and timely referrals to CAMHS for children with suspected learning disabilities. 13 (46%) countries had no such protocols and, in Belgium, coverage was restricted to a few communities or areas. Respondents from 18 (64%) of 28 countries confirmed the availability, in most or all areas, of specific protocols for the referral of severe cases of abuse or neglect to mental health-care providers by other community services (eg, schools, social services, or other public and private agencies). Similarly, respondents from 19 (70%) of 27 countries reported regular communication and sharing of information between CAMHS and child-safeguarding services in most or all areas. In terms of referral procedures, respondents from 16 (57%) of 28 countries reported the existence of official guidelines for referring patients from primary to secondary or tertiary care.

In most countries, at least one service user association (24 [86%] of 28 countries) and one family or caregivers’ association (27 [96%] of 28 countries) was operating (or in existence). The degree of involvement of such organisations in the past 2 years in the formulation or implementation of national mental health policies (ie, participation in meetings dedicated to this purpose) ranged from rarely (in five [18%] of 28 countries for user associations and in three [11%] of 28 countries for family associations) and not routinely (in 11 [39%] of 28 countries for user associations and in 13 [46%] of 28 countries for family associations) to frequently (in eight [29%] of 28 countries for user and family associations). In four (14%) countries, the question did not apply, because of either the absence of national associations or the absence of specific national policies.

**CAMHS activity data**

A periodic activity report of CAMHS was obligatory in 24 (86%) countries (only Croatia, Germany, Luxembourg, and Spain reported having no such requirement). Activity data were not available for nine (32%) countries, mainly because of the absence of national registries (only available in 18 [64%] countries) or restricted access to such sources of information.

The proportion of young people treated in CAMHS in the latest year available (2013–14; figure 3) was obtained for 19 countries and was 3·1–6·0% in seven (37%) countries, 1·4–3·0% in 11 (58%) countries, and less than 1% in one (5%) country (Slovakia). According to the answers provided by ten countries, the proportion of male users was slightly higher (mean 58% [SD 6%]) than that of female users (42% [6%]).

The number of recorded new cases for the last year available was provided by 12 (43%) countries and ranged between 0·1% and 2·0% of young people (appendix). 13 (46%) countries could provide complete data for every diagnostic category (based on DSM-5 or ICD-10), and one (4%) country (Czech Republic) could provide no breakdown of ICD-10 categories F80–F98. In all countries, young people with neurodevelopmental disorders were the most frequent diagnostic group receiving treatment from CAMHS; in countries where subcategories were specified, autistic-spectrum disorders accounted for most of this diagnostic category. Information about specific developmental disorders was not provided in sufficient detail to allow for comparisons between countries. For some countries, more details can be found in the appendix.
Twenty (71%) of the 28 countries had an official national child and adolescent mental health policy, covering young people until their transition age. The age ranges mentioned in the policies for each country are listed in the appendix. In two (7%) countries, the policy had been adapted to extend its coverage to a few years after the official transition age (to 23 years in Finland and to 21 years in Germany); such flexibility allows young patients to remain in services for a few years beyond the 18 years limit if the treating clinician considers this extension appropriate (eg, eating disorder services). Key components of the policies included regulations on the types of health care provided and on the competency of care providers (covered by 17 [63%] of 27 countries); guidelines regarding access to services (covered by 16 [59%] of 27 countries); specific written standards of service provision (covered by 13 [48%] of 27 countries); and other matters, such as rights regarding consent and privacy (covered by two [7%] of 27 countries). Many sectors were reported to be involved in the development of policies about child and adolescent mental health, including mental health (in 18 [64%] countries), primary care (in 15 [54%] countries), child protection (in 14 [50%] countries), health and social welfare (in ten [36%] countries), human rights (in eight [29%] countries), and other social services (in two [7%] countries).

All 28 EU countries had specific laws to protect children from abuse and exploitation. Most countries had formal procedures for informed consent (27 [96%] of 28 countries), confidentiality of health-care services and records (26 [93%] of 28 countries), and prescriptions of medications (23 [82%] of 28 countries). Specific laws pertaining to the participation of children in experimental trials existed in 25 (89%) of the 28 countries.

National expected minimal standards of care for mental health professionals working in CAMHS were reported for at least two-thirds of the 28 countries; 24 (86%) countries reported that such standards exist for psychiatrists, 21 (75%) countries reported that they exist for psychologists, and 19 (68%) countries reported that they exist for nurses. Standards of care included professional certification and maintenance of competency, in-service training, clinical supervision, and clinical practice guidelines. Standardised assessment of mental health services occurred in 19 (68%) of the 28 countries. Measures assessed included patients’ satisfaction (in 12 [43%] countries); clinical outcomes (in ten [36%] countries); families’ satisfaction (in nine [32%] countries); and other national requirements (in nine [32%] countries), such as national accreditation of service providers, sentinel reporting systems, and standards set by health insurance (ie, minimum number of staff, minimum staff qualifications).

**Health financing**

CAMHS across the EU received health funding through different channels (table 2). The most common source was government taxes (in 25 [89%] countries); in ten (36%) countries, government taxes accounted for most health-related funding (80–100%). Two other important sources of funding were the families of service users (in 19 [68%] countries) and social insurance (in 17 [61%] countries). In about half of the countries, private insurance (in 16 [57%] countries) and non-governmental organisations (in 13 [46%] countries) had an important role in funding; international grants funded services in seven (25%) countries. In Croatia, additional funding was provided by local communities. In all countries, families with a child or an adolescent with a disabling mental health disorder received subsidies or free ancillary benefits from the government in the form of exemption from all medical-care costs. Other such subsidies or benefits included access to specialised education programmes (in 27 [96%] of 28 countries), provision of a disability pension (in 23 [82%] of 28 countries), access to institutional care (in 25 [89%] of 28 countries), provision of respite or practical help for caregivers (in 20 [71%] of 28 countries), and provision of training or education for parents (in 17 [61%] of 28 countries). In four (14%) countries, benefits included domiciliary care, rehabilitation courses for individuals and families, and financial assistance for parents or caregivers.

**Data collection and quality assurance**

Systems for collecting epidemiological data about child and adolescent mental health disorders were present in at least half of the surveyed countries, but respondents from only ten (36%) countries could provide references for English language publications reporting detailed national data (eg, prevalence and incidence, service use, suicide rate, psychotropic drug use). Respondents from 18 (67%) of 27 countries reported the existence of a national data collection system for child and adolescent mental health disorders, but respondents from only six (3%) of 27 countries indicated that there was regular monitoring of treatment outcomes.

**Care for special populations**

In several countries, specific subgroups of children and adolescents had poor access to specialised mental health services dedicated to them. For example, of 27 countries, only ten (37%) provided access to refugees, seven (26%) to orphans or victims of natural or man-made disasters, six (22%) to seriously emotionally disturbed children, four (15%) to minority groups, three (11%) to runaway or homeless children, and two (7%) to indigenous people. Nine (33%) of 27 countries had no special services designed to meet the specific needs of these subgroups, and only seven (26%) of 27 countries indicated having highly specialised services for fostered children, children who have offended and been charged with crimes, disabled children, children with autism, or children who misuse substances.

For most countries, all types of psychototropic medication, most commonly used in CAMHS, were...
available in their primary health-care system (data from Malta and Estonia were missing): psychostimulants in 23 (88%) of 26 countries; second-generation antidepressants, antipsychotics, and anxiolytics or sedatives in 24 (92%) of 26 countries; first-generation antipsychotics in 23 (88%) of 26 countries; and mood stabilisers (eg, sodium valproate, lithium, carbamazepine, lamotrigine, and oxcarbazepine) in 22 (85%) of 26 countries. However, in Denmark, these medications were not available in primary care settings (prescriptions were authorised only if made by a child and adolescent psychiatrist).

The most commonly available psychosocial treatments in CAMHS were family psycho-education in 23 (88%) of 26 countries and cognitive behavioural therapy, learning assistance or educational support, and speech and language training each in 21 (81%) of 26 countries (data was missing for Malta and Estonia; figure 4). Training or guidance for parents was available in 20 (77%) of 26 countries (figure 4).

Table 2: Sources of funding for child and adolescent mental health services in the 28 European Union countries

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**Discussion**

In this survey of CAMHS facilities in European countries, we show substantial heterogeneity in terms of service distribution (beds, professionals, opening hours, dedicated facilities, or educational services), financing (public vs private sources), and user access (including new cases). Despite the mandatory requirement for periodic activity reports for CAMHS in most countries, data about service activities were available from only about two-thirds of the 28 countries, which was reduced to fewer than half of the countries for diagnostic group information, with neurodevelopmental disorders indicated as being the most frequent diagnostic group. Between-country differences in service availability appeared to be more substantial than differences in the prevalence of child and adolescent mental health disorders, suggesting that resource distribution does not match epidemiological burden. Such differences are likely to depend on policy issues; the distribution of...
financial resources; social, cultural, and ethical attitudes; and the general architecture of mental health care in each country. For example, the very low number of inpatient beds for children and adolescents in Italy reflects the very small number of psychiatric beds available in general in that country21,22 after a law leading to the closure of all psychiatric hospitals and to a radical decrease in the provision of inpatient and residential care. Other countries, such as Germany, have a high number of inpatient beds across all types of psychiatric care.23 Some countries have other services, such as intensive home-treatment teams, psychotherapeutic facilities, or flexible assertive community teams,24 that deliver similar care to standard CAMHS services in an outreach fashion.

Substantial differences between countries were observed in funding sources: in some countries, all activities related to CAMHS were entirely publicly funded (ie, Croatia, Italy, Spain), whereas, in other countries (eg, Poland), a high proportion of CAMHS activity was funded through private sources. In 18 countries, at least three-quarters of CAMHS funding was provided by the government or social insurance.

The need to use private resources (private insurance or paid directly by a patient or family) to obtain access to mental health care might have, in our opinion, important societal implications. First, having to pay for care might affect the socioeconomic wellbeing of patients’ families by reducing their expenditure capacity on other essential goods and services. Second, to access care only through private, and costly, pathways might discourage families from seeking clinical support, thereby removing opportunities for early intervention.

Several respondents to this survey noted that the provision of specific types of community child and adolescent mental health care in their countries (eg, respite-care placements, day patient programmes, and outpatient clinics) was insufficient to meet the needs of specific clinical groups requiring this type of care. Service commissionaires in these countries might consider the applicability of models of care delivered in other EU countries, as to whether they might improve health outcomes in their own countries.

Current and future care needs for neurodevelopmental disorders

We found that most child and adolescent mental health care in the 28 European countries was targeted at children and adolescents with neurodevelopmental disorders; in countries where subcategories were specified, autistic-spectrum disorders accounted for most of this diagnostic category. In many countries, adult mental health services do not treat adults with autism. This exclusion might be, in part, because the evidence base supporting effective treatments and services for adults with autistic spectrum disorders is sparse25 or because adult mental health professionals require relevant training.25 Individuals with autistic spectrum disorders, as they become adults, might not find suitable mental health services for their care needs;26 the exception being those who have psychiatric comorbidities. Clinical training and service policies should be reviewed to ensure that adult mental health professionals have the competencies required to treat adults with neurodevelopmental disorders and that adequate care is provided by adult mental health services.

CAMHS activities: problems and perspectives

The proportion of young people assisted by CAMHS who were under the age of majority varied substantially between countries. Although the high proportion of users of CAMHS in Italy who were under the age of majority can be explained by the specific combination of assessment and treatment offered in CAMHS in that country (treatment of both child and adolescent mental disorders and neurological diseases), the high proportion of users of CAMHS who were under the age of majority in Lithuania, the Netherlands, and Slovenia does not seem to be explained by CAMHS availability, nor by differences in the transition age (18 years for all three countries).

In a third of the surveyed countries, respondents noted that the specific needs of children under certain circumstances—eg, refugee and asylum-seeking children, children from ethnic-minority backgrounds, or children who were looked after by government or local authorities (ie, children in care)—were not adequately met, confirming previous reports.27–29 This lack of appropriate care has important sociopolitical implications given the increase in migration across the EU. Services should meet the specific clinical needs of new types of users, which
include being prepared to overcome linguistic barriers and offering specific and prompt assistance to those coming from conflict regions.

Although governments support families with children affected by mental health disorders, mostly through financial channels (eg, exemption from medical-care costs) and access to specialised educational programmes, parental training or practical support are not considered a universal benefit. Training courses for parents were not available in about a quarter of the surveyed countries. In view of the economic contribution from the families of service users and private insurance, families clearly have an important part in the continuity of young patients’ health care. Governments should therefore consider how they might further support families and minimise any burden on them, since this support might result in improved care for young patients, with a consequent saving on the public purse.

Together, these points underline how the organisation of services and the distribution of resources are often not based on users’ perspectives and needs, as they should be. Quality of care, as well as its continuity, needs full consideration of service users’ viewpoints as part of a process that involves multidisciplinary teams of clinicians, service users, and other stakeholders.

A combination of basic and clinical research might provide crucial insights into the mechanisms for improvement. Contact with CAMHS can favourably change the long-term course of depression, highlighting the need for timely referral and a good compliance with services.

Changes since the 2005 WHO ATLAS report
Although differences in country coverage and methodology make it difficult to compare our data with those of the WHO ATLAS report from 2005, we can draw some conclusions. The highest availability of child and adolescent psychiatrists has increased from 18-9 per 100000 young people in the entire European region to 36-0 per 100000 young people in Finland. CAMHS funding is now more reliant on governmental and public resources than it was 10 years ago, when, in many countries, services were mostly funded by private financing and international grants. National standards of training exist for child psychiatrists, despite high country variability in adopting them.

Limitations
Although we obtained replies from all 28 EU countries, not all questionnaires were completed fully: information about activity data was particularly scarce, with a third of countries not supplying this information. Caution is needed in interpretation of these data, since information might have been based only on professional or local experience and might be inconsistent with the national profile. We tried to minimise such a potential lack of uniformity and reliability by use of a specific definition of CAMHS and by seeking supplementary clarifications from the respondents. Additional strategies could have included cross-checking new information with already available information, use of a more comprehensive glossary of terms, and gathering of multiple responses for each country. However, for over half of the 28 countries, information was provided by a team of respondents (belonging to the same academic or clinical group). The scarcity of standardised and valid data makes it difficult to interpret between-country differences or overall estimates (especially regarding activity data). Another complicating factor is that, in some countries, services have been going through large-scale reorganisation.

Conclusions
This survey provides important information for the evaluation and planning of CAMHS in Europe. The survey highlights areas of concern: poor service planning and the paucity of standardised outcome assessments for service provision or performance, scarce or variable involvement of service users and their families, and the scarcity of interdisciplinary CAMHS and adult mental health services. Clearer national policies are needed for service delivery and structure and for standardised tools to assess the delivery, take up, and effectiveness of treatment. Young people’s needs should be central to service
provision, which requires improved understanding of their treatment experiences and satisfaction with services. Professional training should be revised to bridge the gap between professional and service-related cultures.

These considerations highlight the need for standardised national data collection systems,11 using clearly identified and shared terminology, to form a holistic view of child and adolescent health and wellbeing and CAMHS. To address the mental health needs of children and adolescents in the most efficient and cost-effective way is part of the essential ongoing investment in adolescent health and wellbeing.15 This challenge implies an unprecedented reconfiguration of current service provision, as well as harmonisation of data collection systems.

Contributors
GS and GdG wrote the manuscript. JW and JG supervised data quality control and analysis. SP5, GD, TF, SEG, AM, FM, LO, DP-O, MP, US, CS, ST, HT, KD-C, VB-M, and FV substantially contributed to the conception of the study, critically revised the manuscript for important intellectual content, approved the final version of the manuscript, and agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. GS confirms that she had full access to all data in the study and had final responsibility for the decision to submit for publication.

Declaration of interests
We declare no competing interests.

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