## GENDER VARIANCE In the UK:

# PREVALENCE, INCIDENCE, GROWTH and GEOGRAPHIC DISTRIBUTION

(June 2009)

Bernard Reed Stephenne Rhodes CEng CPhys Dr Pietà Schofield Professor Kevan Wylie



**Gender Identity Research and Education Society** 

Registered Charity No: 1068137

#### **Foreword**

The analyses contained in this report are needed urgently. Policy makers and service providers, at national and local level, are largely flying blind in providing protection against transphobic bullying and crime, as well as meeting the healthcare and other needs of transgender people.

Recognising this information gap, the Home Office awarded a grant to the Gender Identity Research and Education Society (GIRES) to fund the development of reliable estimates of the size, growth and geographic distribution of this vulnerable community.

Fortunately, recent surveys and information from other sources have provided a rich mine of data for further analysis.

#### **About the Authors**

The GIRES team that undertook this work comprises:

- Bernard Reed, a trustee of GIRES, who is responsible for much of its work, including projects for the Home Office and other government departments and agencies
- Stephenne Rhodes, who specialises in data analysis and systems engineering; she is a joint author of the Transgender EuroStudy, published in 2008
- Dr Pietà Schofield, who specialises in computational modelling of population dynamics and biological processes
- Professor Kevan Wylie, who runs the Gender Identity Clinic in Sheffield and chairs the Royal College of Psychiatrists working group that is preparing guidance for the medical care of adult transsexual people

#### **Acknowledgements**

GIRES is grateful to the Home Office Violent Crime Unit for its grant to cover the cost of preparing this report. Much of it is based on three recent surveys of trans people in the UK and the rest of Europe. The authors thank the organisers of those surveys and the many members of the trans community who participated in them. The authors hope that the involvement of trans people in the three surveys and the publicity that this report gives to their needs will increase their willingness to report the hate crimes that they actually experience. The authors also thank the British gender identity clinics that provided additional data. The list of 80 references at the end of this report indicates the large debt that its authors owe to others. Terry Reed and Susan Schofield contributed many helpful suggestions during the drafting of this report.

#### **Key Words**

Gender Variance, Gender Dysphoria, Transgender, Transsexual, Incidence, Prevalence, Growth, Transphobia, Medical Treatment

#### Contents

#### **Page**

- 4 Executive Summary
- 6 Introduction
- 9 Taxonomy
- 10 Methodology
- 10 Current Incidence of Acute Gender Dysphoria and Transsexualism
- 11 Prevalence of Transgenderism
- 13 Prevalence of Severe Gender Dysphoria and Transsexualism
- 13 Growth
- 17 Gender Balance
- 18 Children and Adolescents
- 19 Transphobic Bullying and Hate Crime
- 19 Medical Treatment for Adults
- 21 Geographic Distribution
- 23 Proposed Further Work
- 24 End Notes and References

#### **Appendices**

- 31 A Glossary of Terms
- 34 B Prevalence of People Presenting with Gender Dysphoria by Police Area

#### **Tables**

- 11 Number of referrals to each adult treatment centre in year to mid 2008
- 14 The percentages of the Scottish group, surveyed in 1998, at different stages of treatment

#### Charts

- 15 Historical estimates of number who have presented with gender dysphoria
- 16 Age at which gender dysphoria revealed to GP
- 18 Year in which respondents revealed gender variance to GP
- 22 Comparison of implied prevalence and population density, by police area

#### **Executive Summary**

When transgender people reveal their gender variance, they are exposed to a risk of discrimination, bullying and hate crime. That risk increases sharply if they make themselves publicly visible by embarking on transition to a new gender role. Thereafter, they remain highly vulnerable. They also have greater need for social and medical care.

Some commissioners and providers of services for the transgender community use the 1998 survey of gender dysphoria, which was conducted in Scotland, to estimate the likely number of people to be cared for in their areas. Prevalence of people who had presented with gender dysphoria was then estimated to be 8 per 100,000 people aged over 16 and over. Other contemporary estimates were quite similar. However, subsequent rapid growth in the number of people who have presented for treatment in the UK requires an upward revision of the estimates based upon the earlier data.

Current prevalence may now be 20 per 100,000, i.e. 10,000 people, of whom 6,000 have undergone transition. 80% were assigned as boys at birth (now trans women) and 20% as girls (now trans men). However, there is good reason to anticipate that the gender balance may eventually become more equal.

Incidence was not measured in the Scottish survey. It may now be 3.0 per 100,000 people aged over 15 in the UK, that is 1,500 people per annum presenting for treatment of gender dysphoria.

The current growth rate in the number of people who are presenting is 15 % per annum; hence the number is doubling every five years. Better social, medical and legislative provisions for transgender people, coupled with the "buddy effect" of snowballing mutual support among them, appear to be driving this growth.

Transgender people present for treatment at any age. The median age is 42.

The adults who present emerge from a large reservoir of transgender people, who experience some degree of gender variance. They may number 300,000, a prevalence of 600 per 100,000, of whom 80% were assigned as boys at birth. However, the number would be nearly 500,000, if the gender balance among transgender people is equal. Service providers and employers need to be aware of this large group who, whether or not they present for medical treatment, may still experience discrimination and be vulnerable to bullying and hate crime.

So far, only 10,000 adults have presented for treatment but a further 50,000, or even 90,000, may do so. Accordingly, the current growth in incidence may continue for a lengthy period, as more transgender people feel able or compelled to present to health professionals with gender dysphoria.

Few younger people present for treatment despite the fact that most gender dysphoric adults report experiencing gender variance from a very early age. Social pressure, in the family and at school, inhibit the early revelation of their gender variance. Only 84 children and adolescents are referred annually to

the UK's sole specialised gender identity service, compared to 1,500 referred to the adult clinics. Nonetheless, medical services and schools should note that incidence among youngsters is also doubling every five years and has the potential to grow much more rapidly if gender variant people start presenting for treatment and undertaking transition while still young. This would have major capacity implications for the specialised service that cares for these young people. Moreover, even greater pressure would be placed on its endocrinology component if the approach to treatment there is brought into line with best international practice.

The growth in the incidence of revealed gender dysphoria among both young and adult people has major implications for commissioners and providers of public services. Regarding healthcare, surgery and life-long hormone therapy will be required for many of the rapidly increasing number of people, currently 1,200 per annum, who undertake transition to a new gender role, that is who are transsexual. The present annual requirement is 480 genital and gonadal surgeries for trans women (male to female) and 240 chest reconstructions for trans men (female to male), in addition to other gender confirming surgical procedures. However, other providers of public services and employers should also anticipate a rapidly increasing requirement to care for transsexual people and protect them.

Service providers should take account too of the need to support the families of transgender people, especially of those who undertake transition.

Policy makers need to be aware of the uneven geographic dispersion of people who have presented with gender dysphopria. Prevalence apparently ranges from a high of 45 per 100,000 aged 16 and over in Sussex to less than 10 some other areas. There is no general correlation between a high population density and a high incidence of gender dysphoria. Despite their high population densities, both the West Midlands and Merseyside appear to have low prevalence of gender dysphoria (9). It is possible that cultural factors, and the date at which the buddy effect begins, may be major determinants of these differences, Policy makers in areas where prevalence is low need to consider what should done to create a more supportive environment for transgender people. Where prevalence is high, there is a clear and present need to support and protect a significant number of gender dysphoric people in the community.

GIRES has highly detailed information on the dispersion and concentration of gender dysphoric people. It is not making this information generally available because it might expose individuals to risk. However, it is willing to work in total confidence with local policy makers to identify areas of special need.

The trends identified in this report and the gender balance should be closely monitored. That will require GIRES to work with the gender identity clinics and the Gender Recognition Panel. A model of the transgender population, based on the prototype prepared by GIRES, should be developed to facilitate forecasting. More detailed data should be obtained on the demand for specific surgical interventions and the capacity available to meet that need.

#### Introduction

Gender dysphoria describes the discomfort felt by people whose innate gender identity, the sense of being a boy/man or girl/woman, conflicts with their visible sex characteristics. The main influences on gender identity development appear to be neurobiological. Transsexualism is not a lifestyle choice. The term transsexual applies to people whose gender dysphoria is of such severity that they have to deal with it by transitioning, usually with medical assistance, to a gender role different from that assigned to them at birth. Transgender is a broader term that includes all those who experience some degree of gender variance, which, in most cases, requires no medical intervention.

A more comprehensive explanation of the terms used in the transgender field is contained in Appendix A.

The objectives of this report are to:

- Improve the evidence base about the likely extent and location of transphobic crime
- Inform the transgender community about the value of their participation in the previous surveys and increase their willingness to report hate crimes
- Improve the response to hate crime against transgender people within local police services
- Alert providers and commissioners of healthcare to the growing needs among transsexual people for specialised medical services

The client group that this report aims to help consists of transgender people, i.e. those who experience gender variance. Most of them do not undergo a full time and permanent transition to a new gender role. Those who do, transsexual men and women, are often visible and at great risk of transphobic bullying and hate crime. However, those who deal with their gender variance without transitioning are often also at risk of exposure, especially if they engage in cross-dressing.

In healthcare, the transgender people who undergo transition require specific medical support. Commissioners and providers of health services need to know how many people are likely to seek the many different types of medical care for gender dysphoria and transsexualism each year. Case law confirms that the NHS should provide treatments that include hormones and, where necessary, surgery. These are deemed to be valid and appropriate treatments for gender variant conditions.<sup>2</sup> Clinical experience indicates that treatment outcomes are good.<sup>3</sup>

Employers in both the public and the private sector need to be aware not only how frequently they will encounter the transsexual people in the workplace and among their customers, all of whom are protected by the law<sup>4</sup>,<sup>5</sup>, but also how many other transgender people may be fearing discovery and perhaps

needing support. The Equal Opportunities Commission (now absorbed into the Equality and Human Rights Commission) recommended that public authorities should ensure that their policies and procedures cover transgender people as well as those who are transsexual.<sup>6</sup> As the UK's largest employer, the health service has to be especially mindful of its duties to its entire transsexual and transgender staff.

During the past two years, three surveys have been published, which provide a rich source of data relating to the transgender population in the UK:

- Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination; The Equalities Review (95 pages excluding questionnaire)
- Transgender EuroStudy: Legal Survey and Focus on the Transgender Experience of Healthcare; European Region of the International Lesbian and Gay Association (ILGA Europe) and Transgender Europe (75 pages excluding questionnaire)
- Survey of Patient Satisfaction with Transgender Services; NHS Audit, Information and Analysis Unit (AIAU) (48 pages, excluding questionnaire)

The "Engendered Penalties" report cited above stated that there had hitherto been little evidence-based research on the nature of inequality and discrimination experienced by trans people. Also, there is little published evidence of the size and growth of this population. Reporting of hate crime appears to understate substantially that based on transphobia. The police True Vision initiative to encourage the reporting of transphobic and other hate crime is in abeyance. Hence, policy makers have been unable to estimate reliably the likely extent of current and future transphobic bullying and crime within the population, its geographical variability or the quantum of medical treatment that transsexual people need.

Transgender people are difficult to count. Many do not reveal their gender variance to their GPs or seek any medical treatment. Even the number of transsexual people is somewhat uncertain, although most of them do need medical treatment. An unknown but possibly significant proportion of transsexual people obtain treatment outside the specialised NHS and private clinics. This may be via self medication, with hormones acquired via the internet, or surgery obtained overseas.

It would be difficult to quantify precisely all the different elements of such a diverse but relatively small group by means of a single sample taken from the general population. Not least among the practical problems would be defining those different elements in a way that was meaningful and acceptable to the trans people who might participate in such a survey. Trans people self define in various ways that are valid to themselves but not always to others. Hence the preparation of up to date estimates depends in large part on assembling and analysing the evidence currently available.

An attempt has been made in this report to estimate reasonably the size, growth and geographic dispersion of the trans community by using data from

a variety of sources. This has been derived from the above surveys, some as yet unpublished, as well from the NHS and private gender identity clinics. Other data has appeared in peer reviewed academic journals or been assembled by government departments. The thorough review, undertaken by the authors of this report, of what is available and careful cross-checking should have ensured that the estimates it contains are not prone to significant error.

Prevalence is the term for the number of people in a population who are known to be experiencing a condition at a given time. In the case of people experiencing gender dysphoria, that population is defined as those who have already revealed their condition to a health service professional. Obviously that does not include others who are experiencing gender dysphoria, even to an acute degree, but have not yet revealed it. Among that hidden population, some are self-medicating with hormones obtained via the internet.

Incidence is the term for the number who newly reveal the condition in any year. So long as incidence exceeds mortality among people who have experienced gender dysphoria, prevalence as defined above will increase.

The shapes of growth curves for prevalence vary greatly, depending on whether a condition is infectious (the great flu epidemic), contagious (HIV) or congenital (adrenal hyperplasia). In the case of a congenital condition, such as Klinefelter's Syndrome, that may often remain sub-clinical, measuring growth is dependent on observed cases. The characteristics of gender dysphoria are similar. It is only possible to determine the underlying prevalence within the general population by randomised sampling and testing. In the case of gender dysphoria, for which there is no infallible physical indicator, that is a difficult task, and understandably has not been attempted.

The data used in the present report indicates substantial geographical variations. Commissioners and providers of healthcare, police and other services have to accept that local figures for the prevalence and incidence of people who reveal their gender dysphoria may differ substantially from those calculated at the national level. Large differences seem unlikely to be due only to statistical variance between relatively small samples. Differences in local tolerance of, and provision for, transgender people seem to be of major significance, coupled, possibly, with the different dates at which the buddy effect begins to operate. These differences affect the willingness of transgender people to seek medical help and may cause them to move to centres that are known to be more welcoming, such as Brighton. As recounted in the report, very large regional variations were also discovered in Belgium and The Netherlands.

The medical needs of transsexual people, that is those who have transitioned or intend to do so, differ depending on whether they were deemed to be boys or girls at birth. Separate estimates are, therefore, needed for each group. Moreover, as described in the section on medical treatment, there is a wide range of possible gender confirming surgical interventions, all, some or none of which may be required by each individual person.

Gender dysphoric people, especially those who are transsexual, usually need specialised medical treatment to ease their condition. They and others within the broad transgender group should be cared for respectfully when they present for the treatment of some condition that is unrelated to their transgenderism. They may also need psychological support in dealing with the social stresses that transgenderism may cause. Additionally, in many of these cases, family members are affected by stress and relationship problems. So, they too may need help in dealing with their own difficulties and, in any event, may need guidance on how best to provide the support that is often vital to their transgender family members.

The NHS facilities are, sometimes, overloaded. Long waiting times encourage use of internet sources for medication, which may not be safe. The waiting times for the largest NHS Gender Identity Clinic, at Charing Cross Hospital, have fluctuated widely. In October 2006, 22% of its users had been waiting more than a year for an appointment and a further 24% for 6 to 12 months. The Clinic's management took successful action to cut its waiting time. However, recent anecdotal evidence from service users, confirmed by the Clinic's manager, indicates that, due to increasing demand, the waiting time is again lengthening for follow up appointments.

The private health sector plays an important role. It takes pressure off the NHS facilities and thereby improves the overall level of care for people seeking treatment for gender dysphoria.

#### **Taxonomy**

As stated above, the medical and other services that some transgender people need vary greatly between one individual and another. In preparing sound plans for those services, commissioners and providers require reliable estimates of the numbers, divided between trans women (male to female) and trans men (female to male) people, who:

- > Have experienced some degree of gender variance
- ➤ Have revealed that gender variance to a health professional
- ➤ Have undertaken transition to a new gender role
- Have undergone gender confirmation surgery

The moment of greatest risk, of negative or even violent responses and discrimination, in the family, employment, education or the community, is the point of transition, which entails beginning to live full-time in a gender role that is different from that assigned at birth. However, even prior to then, the transitioning person is likely to have experienced the mounting stress associated with gender dysphoria. For those in medical care, transition is when the transgender person commences the real life experience of living full-time in the new gender role. The police and other support services need to be aware of the special protection that transsexual people require at this time and onwards, but mindful too of their earlier needs.

Regarding surgery, there is a wide range of procedures that transsexual people may undergo. They vary greatly in complexity and cost. Hence commissioners and providers of surgery would also find it helpful to know the

annual number of each procedure performed. However, these data are currently unavailable. Obtaining it would require separate research into NHS and private sector records. Nonetheless, the report contains some broad estimates of the requirement for surgery.

#### Methodology

Reliable current incidence data for gender dysphoria and transsexualism are obtained by adding the annual number of new cases referred to the NHS and private clinics. This includes gender variant children and adolescents.

The current prevalence of people who have transitioned is estimated using recent data from the Gender Recognition Panel and from the Transgender EuroStudy. The number of others who have presented for treatment of gender dysphoria but have not yet transitioned is estimated based on earlier data collected in Scotland.<sup>10</sup>

This Scottish study provides a helpful categorisation of service users according to the stage of treatment they had reached and the proportions who were assigned male or female at birth.

An historical record of growth has been derived from (a) a series of studies conducted by the UK government in 1995<sup>11</sup> and subsequently, (b) a Dutch survey published in 1996<sup>12</sup>, and (c) recent data gathered in the Transgender Eurostudy and the AIAU survey. The current growth rates among adults and younger people have been obtained from some of the specialised clinics.

Supplementary estimates have been provided by clinicians who specialise in caring for gender variant people within both the NHS and the private sector.

Regarding the larger group of transgender people, among whom those who are transsexual constitute a small part, there are no robust data available for the UK. Overseas estimates of the prevalence of transgenderism, including that published by the American Psychological Association, have therefore been employed. Data from The Netherlands have been used to estimate how many transgender people may undergo transition. Although the reliability of bases for estimating the prevalence of transgenderism and the likelihood of transition in the UK is questionable, it is adequate to indicate: (a) for the commissioners and providers of transgender healthcare, the substantial scope for further growth in the number of people who present for treatment, (b) for all types of service provider, the possible frequency with which they may encounter transgender people among their users and (c) for employers, the possible magnitude of this group within their respective workforces. In respect of healthcare, there is no requirement for specialised medical services for the great majority of transgender people and a precise estimate of the size of this population is not necessary.

#### **Current Incidence of Severe Gender Dysphoria and Transsexualism**

In 2008, GIRES obtained data on referrals during the previous 12 months from six of the major NHS clinics to which people seeking treatment for gender dysphoria are referred. This is not the complete picture within the

NHS. In the AIAU survey, 25 % of the participants who answered the relevant question reported having attended 17 other NHS treatment centres, including the relatively large clinics in Leeds and Leicester, for which an estimate of referrals has therefore been included. Data was also provided by the largest private service, which is based in London. The AIAU report states that participants in its survey move "back and forth between the NHS and the private sector". In fact, 26 % of the respondents in that survey reported having obtained private treatment. Certainly, that would usually be essential for facial hair removal for trans women, which, controversially, the NHS only infrequently provides. Hence, in estimating the total number of referrals, an allowance must be made for double counting. The calculation that emerges from the foregoing data is as follows:

#### Number of referrals in year to mid 2008

#### Adult Treatment Centre

Charing Cross	775		
Edinburgh	41		
Glasgow	37		
Sheffield	78		
Newton Abbott	62		
Nottingham	30		
17 Others (Est.)	341 <sup>1</sup>	4	
Total NHS	1,364		
Private <sup>15</sup>	275		
Gross Total		1,639	
Less Overlap (Est	t.)	$(91)^{16}$	
Net Total		<u>1</u>	,548

Incidence of referrals to the specialist treatment centres per 100,000 people aged 16 and over is 3.0.<sup>17</sup>

In addition to the above numbers of people being referred to specialist treatment centres, others with gender dysphoria are, as yet, in the care of their GP or a local psychiatrist. Furthermore, some people deal with their gender dysphoria by self medicating and do not reveal their condition to any healthcare professional.

At least 80% of the severely gender dysphoric people who are referred to a specialised NHS or private clinic undergo full transition. Hence the number currently expected to transition each year can be estimated as 1,200 (1,500 X .8)

#### **Prevalence of Transgenderism**

Transsexual people form a small part of the broader transgender group. The members of this broader group experience gender variance in a variety of ways, which they each may deal with differently. As explained in Appendix A, some may self identify as genderqueer. Some may cross-dress occasionally. Others may change gender role full time, but with little or no medical treatment. The great majority will wish to remain undetected. Service providers should expect to encounter members of this community quite

frequently, if often unknowingly, among their users and within their workforces.

It is from this broad transgender group that transsexual people emerge. They may present at any age. Among pre-pubertal children referred for treatment of gender dysphoria, it is not currently possible to identify those in whom the condition will remit. However, if they still experience gender dysphoria at and after the onset of puberty, there is a very high rate of persistence of gender dysphoria into adulthood. In puberty (aged 12 and over), they are at a substantially increased risk of self-harm and overdose (23%), compared to younger children (under 12 years old) experiencing gender dysphoria, among whom self-harm is rare (0%). In the general British population, the proportion of children aged 11 to 15 who are reported to have tried to harm, hurt or kill themselves is substantially lower (only 6.7%), although it is somewhat higher (1.3 %) among those aged 5 to 10.

There is no validated estimate of the population of transgender people in the UK, that is those who experience some degree of gender variance, often engage in cross-dressing, but have not undergone a full time and permanent transition to a new gender role

Data gathered in The Netherlands during the period 1994-1996 indicated that the prevalence of cross-dressing in men was 1-5%. In the USA, it is estimated that 2% to 5% of males engage in frequent (private/club) cross-dressing. Based on figures prepared by cross-dresser and activist groups, it is estimated that the prevalence of strong transgender feelings in American men is roughly 1% to 2% The American Psychological Association reports that "as many as 2-3% of biological males engage in cross-dressing, at least occasionally" In the UK, the Beaumont Society estimates that 1 in 10 men have cross-dressed or will do so, which is out of line with thr foregoing figures. In the UK, the Beaumont Society estimates that 1 in 10 men have cross-dressed or will do so, which is out of line with thr foregoing figures.

A reasonable and conservative assumption may be that, in the UK, about 1% of men cross-dress, i.e. about 235,000.<sup>28</sup>

The motivation for cross-dressing varies widely between individuals. In the above Dutch study, 60 % of the men who participated confirmed that it "allows expression of my female side", 52 % that "it reinforces my female personality", 32 % that "I can live as a woman socially". Only 21 % confirmed that "I feel I am in the wrong body" and 19 % that they "wanted a complete role adaptation". It is from this latter group that transsexual people seem most likely to emerge,

If 19 % of them want a complete role adaptation, that would amount to 45,000 who are potentially trans women (.19 X 235,000).

We are not aware of any estimates of the percentage of women who experience transgenderism. They are difficult to detect because society generally accepts masculine dress and behaviour in women. If their number were in the same proportion to those who are transsexual as it is for men, it would be about 59,000, i.e. 0.24% of women<sup>29</sup> We know nothing about their motivation. However, if 19 % of them want a complete role adaptation, there would be 11,000 who are potentially trans men (.19 X 59,000).

Adding these two groups together (235,000 + 59,000) gives an estimate of about 300,000 transgender people, defined as those who cross-dress. Their prevalence is 600 per 100,000 aged over 15.<sup>30</sup> Out of that number, 56,000 might potentially be transsexual people (45,000 + 11,000). All who cross dress are at risk of bullying and hate crime, especially if they venture outside the home in clothing of the opposite gender.

Obviously, the number of family members who are likely to be affected by the transgender issues of their close relatives is substantially higher.

We are not aware of any data on the incidence of transgenderism. Of course, there may be longer-term concerns about a possible increase in the size of the transgender community. Although it is possible to hypothesise that the incidence of transgenderism might be increasing, for instance as result of societal factors or the effect of environmental pollution on pre-natal gender identity development, this report does not pursue these possibilities.

#### **Prevalence of Severe Gender Dysphoria and Transsexualism**

A key requirement is to estimate the prevalence of people nationally who have experienced gender dysphoria that is sufficiently severe to have sought medical help.

The data for the UK generated by the gender recognition process and from the Transgender Eurostudy in 2007 enable estimation of the number of people who had already transitioned. The Gender Recognition Panel has stated that, at the date of the survey, 2,004 people had received Gender Recognition Certificates. According to unpublished data gathered in the Transgender EuroStudy, only 34% of the respondents who had transitioned had received a new birth certificate. Scaling up by that ratio produces an estimate of some 5,894 people who had undergone transition (2,004/.34).

Data from the Scottish survey conducted in 1998 indicated that 60 % of the people who had presented with gender dysphoria had undergone transition. This would indicate that, in 2007, close to 10,000 people had presented (5,894/.6 = 9,824). That represents prevalence figures per 100,000 in the UK population aged 15 and over of 20. <sup>31</sup>

In the above section on transgenderism, it is estimated that 56,000 people may present for medical treatment of gender dysphoria at some stage in their life-times. Of that number, so far, only 10,000 have presented, leaving 46,000 who have yet to do so. How likely it is that they will and when they might do so are unknown.

#### Growth

A series of reasonably reliable estimates of the prevalence of people who have presented with gender dysphoria and the proportion of them who have transitioned have been made at different times since 1995.

In 1995, the Department of Social Security estimated that there were about 2,500 assigned as boys and 500 assigned as girls whose records had already been amended to show a change of name or title by reason of the person adopting the role of the opposite sex, i.e. who had transitioned<sup>32</sup> If this group, as shown in the later Scottish survey, constituted 60% of those with gender dysphoria, the total numbers who had presented with this condition would have been about 4,200 assigned as boys (2,500/0.6) and about 800 assigned as girls (500/0.6), i.e. an overall total of 5,000.

Data were obtained in The Netherlands in 1996 33 and Scotland in 1998.34

The percentages of the Scottish group at different stages of treatment were:

	<u>%</u>	
	Male to	Female
	<u>Female</u>	to Male
With gender dysphoria but not in treatment	24%	24
With gender dysphoria in psychological/counselling treatment only	17	16
Taking sex hormone therapy but pre-operative	25	20
Post-operative	33	40

The Scottish study was based on data collected for 273 people who had presented to a GP with gender dysphoria, of whom 55 (20%) had been assigned as girls at birth..

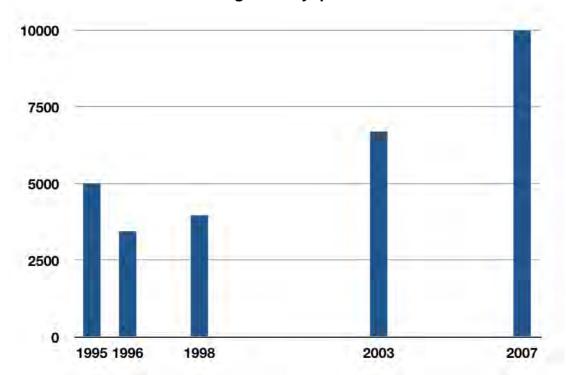
These two surveys provided somewhat similar estimates of prevalence. In relation to the total Dutch population, 1 in 11,900 people assigned as boys at birth and 1 in 30,400 assigned as girls experienced gender dysphoria. The Scottish figures were for people aged 16 and over. However, adjusted in relation to the total population, they were 1 in 9,160 assigned as boys and 1 in 38,350 assigned as girls.<sup>35</sup>

Extrapolating the Scottish figures to the whole of the UK, results in estimates that, in 1998, there were 3,170 people aged over 15 assigned as boys and 790 assigned as girls, an overall total of 3,960, who had presented with gender dysphoria.<sup>36</sup> Using the Dutch figures results in 2,440 assigned as boys and 1,000 assigned as girls, a total of 3,440.<sup>37</sup>

In 2003, the Inland Revenue and Department for Work and Pensions had around 4,000 cases marked as 'nationally sensitive' because the individual had stated that he or she was transsexual. <sup>38</sup> The total number who had presented for treatment could be estimated as 6,667 (4,000/.6). Figures from the Passport Agency and DVLA suggested, at that time, that the population was close to 5,000. However, the latter figure, which already included a prediction of those who were expected to seek help in the future, seems rather low.<sup>39</sup>

The foregoing figures, including those previously estimated for 2007, indicate substantial growth since 1995 in the number of people who have presented with gender dysphoria.

## Historical estimates of number who have presented with gender dysphoria

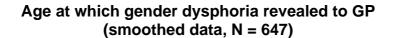


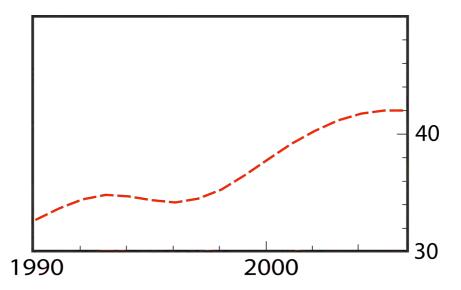
Data from other sources also indicate that the number of people who will need some form of medical help for gender dysphoria is growing rapidly. The survey conducted by ILGA Europe showed that the historic growth trend of the incidence of people commencing transition in the UK is 14 % per annum compound.<sup>40</sup> This is the same as the rate in the rest of Europe.

In addition, the calculations earlier in the report of an incidence of 3.0, compared to a prevalence of 20 per 100,000 indicate a nearly similar 15 % per annum growth rate (3.0/20.0).

Referrals to some of the gender identity clinics also indicate rapid growth. The gender identity clinics in London, Newton Abbott, Sheffield and Glasgow received a total of 952 referrals in the year to mid 2008, an increase of 49% above the previous year's figure. The London clinic, at Charing Cross Hospital accounted for 775 of that total. Three years earlier, it received about 300 referrals.

Relatively few transsexual people have, as yet, emerged from the large reservoir of transgender people. Unpublished data from the Transgender Eurostudy indicates that the median age at which trans people first visited their GP to discuss their gender dysphoria has been rising and is currently 42. If the reservoir of people likely to transition were nearing exhaustion, that age should be diminishing.





The reasons that more gender dysphoric people are now choosing to identify themselves to providers of medical services probably include:

- greater general knowledge of transsexualism and its medical treatment as a result of publicity in the media and the dissemination of information via the internet
- increased provision for treatment within the NHS
- the "buddy effect"; help-lines, and local support groups and web-based discussion facilities enable people experiencing gender dysphoria to meet and gain confidence
- new legislation to protect transsexual people, especially in the workplace
- > somewhat more respectful press coverage

The current growth rate in the number of known gender dysphoric people greatly exceeds that of the population as a whole, which is increasing at about 0.5% per annum. Also, the number of new referrals is currently far greater than the possible diminution through mortality within the existing group who have experienced or are still experiencing gender dysphoria of sufficient severity to have sought medical help. Their age profile mirrors that of the general population and the great majority (92%) are aged 60 or less. Mortality in the general population is running at less than 1 % per annum. It may be higher in the transgender population, where suicidality is a significant risk, with 35% reporting having made at least one suicide attempt. However, we are not aware of any data that indicate high mortality among severely gender dysphoric people from successful suicide attempts.

Commissioners and providers of healthcare and other services should reconsider the basis upon which they are estimating the likely need to treat people with gender dysphoria. For instance, when the Thames Valley PCTs and the Healthcare Commission Wales reviewed their policy on funding treatment for gender dysphoria, respectively in 2006 and 2009, they referred only to the out of date figures generated from the Dutch survey (1996) and that in Scotland (1998).

The only safe assumption for commissioners and providers is that the present growth rate in the incidence of new people requiring medical and other care is likely to continue, which is usually the basis on which service provision is planned. At a growth rate of 15 % per annum compound, the number of new cases will approximately double every 5 years.

#### **Gender Balance**

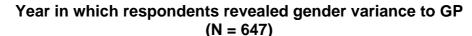
Regarding the gender balance among those who have presented with gender dysphoria, the proportion originally assigned as girls in the 1998 Scottish survey constituted 20 % of the total. The Engendered Penalties survey in 2006 found that 23% of the trans people surveyed had been assigned as girls.<sup>47</sup>. In 2007, the Transgender EuroStudy found that, in the UK, 22% had been assigned as girls.<sup>48</sup>.

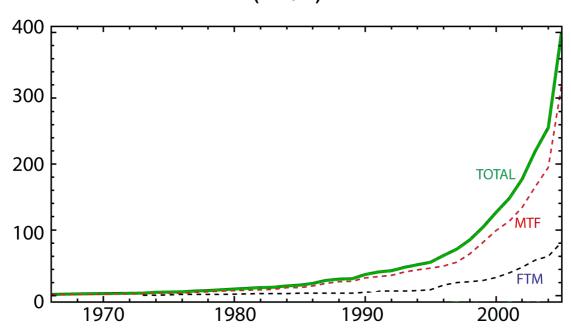
It should be noted that in the rest of Europe, only 50 % of people who have transitioned in the last five years were assigned as boys at birth.<sup>49</sup> Also, at the Gender Identity Clinic in Glasgow, the proportion of its patients assigned as girls at birth is now 37%.<sup>50</sup>. Consequently, it seems worthwhile to consider the likelihood that the gender balance in the UK will become more like that in the rest of Europe.

It is possible that, in the UK, the publicity that surrounded the pioneering trans women, Roberta Cowell (1951), April Ashley (1962) and Jan Morris (1974), encouraged other people assigned as boys at birth to follow the same path. During that era, there were no similarly famous trans men to whom gender dysphoric people assigned as girls at birth could look as role models. Hence, the emergence of trans men presenting for treatment may have lagged the emergence of trans women.

If 50% of the transgender population in the UK were assigned as girls at birth, they would number 248,000, rather than the 59,000 calculated above. The total transgender population would be 483,000 (248,000 + 235,000). The number of transgender people who might go on to transition would then be 90,000 (483,000 X .19).

The annual growth rate in the numbers of trans women and trans men who are seeking treatment for gender dysphoria is similar. If 50% of transgender people were assigned as girls at birth the gender balance among those who have transitioned is likely to become progressively more equal.





#### **Children and Adolescents**

As in the adult clinics, the number of referrals to the UK's single specialised service for gender variant children and adolescents has been doubling every five years. Similarly, the recent growth has been even more rapid. The service received 84 referrals in the year to March 2009, compared to 64 to 2008 and 50 to 2007, a growth of 68 % in just two years.

However, the growth rate for youngsters may continue to accelerate. Transsexual people typically report having experienced gender variance since early childhood. Social pressures, especially within the family and at school, currently prevent all but a few from revealing their gender variance and being referred for medical care, especially in adolescence<sup>54</sup>. Those who do amount to only 6 % of the number of adults who are finally revealing their gender dysphoria (84/1,500).

Physical intervention in early puberty would relieve stress and prevent the development of unwanted secondary sex characteristic, which later require costly and painful correction, such as chest reconstruction in trans men and removal of facial hair in trans women.<sup>55</sup> It seems cost-effective to identify transsexual people early and offer them treatment, as in many leading overseas centres.<sup>56</sup> Early intervention is allowed and even recommended by the international authorities in this field.<sup>57</sup>,<sup>58</sup>

That treatment is not offered in the UK.<sup>59</sup> A few British families are now obtaining treatment overseas to suspend their children's puberty at an early stage. The Children's Hospital Boston has seen four such cases.<sup>60</sup> One of the clinics in Thailand states that it has a number of patients, from a variety of western countries, who underwent male to female sex reassignment surgery at age 16.<sup>61</sup>

Already, coping with the doubling of new referrals every five years presents a major challenge for the existing single service centre. If an increasing proportion of the gender variant youngsters who are currently not presenting for treatment do so, that growth rate would accelerate substantially. That would obviously place pressure on the mental health element of the present service. However, there would be even greater pressure on the endocrinology service if it adopted the treatment approach followed overseas and authoritatively recommended. It would then begin treating adolescents at the start rather than on completion of puberty and thereby provide care that is now largely deferred until the adult services take on responsibility for these patients. It should be recognised that the surgical interventions required by transsexual adults to reverse the unwanted and distressing physical changes wrought by puberty would be much less if pubertal development were suspended by early endocrine treatment. Early treatment may actually reduce the burden on medical services.

#### **Transphobic Bullying and Hate Crime**

The Engendered Penalties report contains data on the transphobic bullying experienced at school by the adults who participated in the survey. That research endeavoured to be as inclusive as possible of all categories of transgender people. About 40% of them had experienced verbal abuse, 30% threatening behaviour, 25% physical abuse and 4% sexual abuse. About 25% had been bullied by their teachers.<sup>62</sup>

However, the bullying reported by gay schoolchildren is even greater: 70% verbal, 29% physical and 10% sexual<sup>63</sup> This accords with the evidence that most trans people delay revealing their gender dysphoria until adulthood.

In public spaces, many of these adult transgender people experienced harassment that appears criminal in nature: verbal abuse, 19 %; threatening behaviour, 10 %; physical abuse, 5 % and sexual abuse, 2 %. 64

#### **Medical Treatment for Adults**

The forgoing prevalence estimates indicate that:

- ➤ 300,000 to 500,000 people have experienced some degree of gender variance
- ➤ 60,000 to 90,000 of whom desire a complete role adaptation
- ➤ 10,000 of whom have revealed their gender variance to a health professional
- ➤ 6,000 of whom have undertaken transition to a new gender role

A high degree of stress accompanies gender variance, with 34 % of transgender adults reporting at least one suicide attempt. Yet, the AIAU data indicates that only 10 % of the people who seek professional medical help obtain counselling outside the typical pathway to treatment: GP -> local psychiatrist -> specialised clinic. Even among those who follow this pathway, more than half are offered no counselling at all.

Counselling for family members of both transgender and transsexual people of all ages may also be required. However, it is not provided by the gender identity clinics.

Hormone therapy is usually an essential element of treatment for those who undertake transition and a lifelong requirement for the 6,000 people who have done so.

Surgical interventions, for those who have received them, are effective in relieving the stress that profound and persistent gender dysphoria causes.<sup>67</sup>, <sup>68</sup> They may include:

#### a - MtF (Trans Woman):

- i orchidectomy -removal of testicles
- ii penectomy removal of penis
- iii vaginoplasty creation of vagina
- iv clitoroplasty creation of clitoris
- v labioplasty creation of labia
- vi hair removal donor site
- vii mammoplasty breast enlargement
- viii thyroid chondroplasty- reduction of Adam's apple
- ix facial feminising especially reshaping the nose and chin
- x body reshaping
- xi cricothyroid approximation and other vocal surgery raising the pitch of the voice
- xii hair removal facial and body
- xiii hair transplant to mitigate male pattern baldness

#### b - FtM (Trans Man):

- i mastectomy removal of breasts and chest reconstruction
- ii hysterectomy removal of uterus
- iii vaginectomy removal of vagina
- iv salpingo-oopherectomy removal of fallopian tubes and ovaries
- v metoidioplasty creation of micro-penis, using the clitoris
- vi phalloplasty creation of penis, with or without urethra
- vii urethroplasty creation of urethra within the penis
- viii scrotoplasty creation of scrotum
  - ix placement of testicular prostheses
  - x penile prosthesis implant, making erection possible
- xi hair removal: donor site

Among NHS commissioners, what is meant by the term gender reassignment (or gender confirmation) surgery appears to include procedures i to vi for trans women and i to ix for trans men.<sup>69</sup> However, the remaining procedures may also be considered to be important and necessary to confirm gender.

It appears that 3,500 transsexual people may already have undergone gender reassignment surgery. <sup>70</sup>

The key factor in respect of surgery, for commissioners and providers of healthcare, is the annual number of procedures, rather than the number that have already been carried out.

Facial hair removal helps a trans woman live successfully in the new gender role.<sup>71</sup> For most of them, this treatment is essential, albeit expensive.<sup>72</sup> That implies 960 new cases per annum.<sup>73</sup> This treatment is rarely funded by the NHS.

Regarding other gender confirmation surgery, the need varies greatly from one individual to another.

Funding restrictions within the NHS have resulted in its carrying out a disproportionately low number of gender confirmation surgeries, only 30% of the total in 1998.<sup>74</sup> Currently, the NHS clinics receive 83% of new referrals (1,364/1,639, ignoring overlap).

Among trans women, 50% of those who undergo transition in the private sector receive genital and gonadal surgery. If this same proportion were applied to the total who annually undergo male to female transition, in both the NHS and the private sector, there would be an annual requirement for 480 such procedures. In the financial year 2004/5, the NHS reported only 99 such procedures. Apparently, the NHS provision of such surgery for trans women should be increased substantially to meet the current requirement. Relatively few of them appear able to afford the cost of private surgery.

The majority of trans men require chest reconstruction, implying up to 240 procedures per annum to be performed in the NHS and the private sector. <sup>78</sup> It is not known how many are provided within the NHS.

#### **Geographic Distribution**

This report has provided the police service, nationally, with guidance on the size and growth of the transsexual community and the likely scale of the transgender population. Estimates have been included of their possible experience of hate crime. To assist in the allocation of resources, the police at local level also need information on the geographic dispersion of transsexual people. They are often at great risk because transition has made them highly visible. This information would also provide a basis for questioning any available statistics generated by existing systems for recording hate crime.

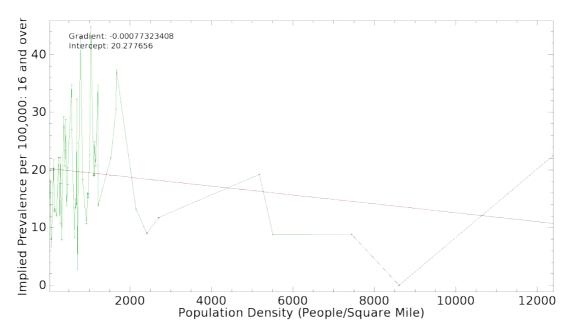
The data gathered in the Engendered Penalties and AIAU surveys include post code information. After eliminating the duplications between these two sets of data, 1,196 records were available for further analysis. It was possible to identify in which police authority each respondent lived at the time of the surveys. In 2004, the Office for National Statistics calculated the population, as well as the geographic size, of each area. This data enabled an estimation of the implied prevalence of people who have presented with gender dysphoria in each area, as shown in Appendix B.

There is substantial variability in the implied prevalence. It appears highest in Sussex and Nottinghamshire, for which the prevalence per 100,000 aged 16 and over appears to be, respectively, 45 and 43, compared to the national average of 20. Brighton, in Sussex, is known as a favourable environment for transgender people. But, the reasons for the high number in Nottinghamshire are impossible to determine at this stage.

The implied prevalence in a number of the police areas is apparently well below the national average, notably in the City of London (0), Fife (3) and Dumfries and Galloway (7). The figures for West Midlands and Merseyside, 9 in each case, also appear low. The average in the Scottish police areas, weighted by size of population is 16, rather below the national average. This might indicate that the prevalence calculated for the whole of the UK in 1998, based on the Scottish survey, was, perhaps, underestimated.

The authors tested the hypothesis that implied prevalence might be correlated with population density, based on the assumption that more urban areas might be more tolerant of transgender people. The data tell a different story. Despite their high population densities, both the West Midlands and Merseyside appear to have low prevalence of gender dysphoria (9). In fact, implied prevalence seems to decline with increased population density as show in the chart below.

## Comparison of implied prevalence and population density (N = 1,196)



Substantial regional variations in prevalence have been recorded in other countries. For instance, in a Dutch survey conducted in 1996, prevalence in Amsterdam was nearly four times greater than in the non-urban areas of The Netherlands. In a Belgian survey conducted in 2003, prevalence in Brussels was nearly four times greater than in the Wallonia region. The Belgian researchers remarked that transsexualism appears socially less acceptable in Wallonia.

It appears that cultural factors, and the date at which the buddy effect begins, may be major determinants of these differences, Cultural hostility to transgender people, and lack of local peer support, will affect their willingness to seek medical help or cause them to move to centres that are known to be more welcoming. Policy makers in areas where prevalence is low need to consider what should done to create a more supportive environment for transgender people. Where prevalence is high, there is a clear and present need to support and protect a significant number of gender dysphoric people in the community.

GIRES has highly detailed information on the dispersion and concentration of gender dysphoric people. It is not making this information generally available because it might expose individuals to risk. However, it is willing to work in total confidence with local policy makers to identify areas of special need.

Generally, policy makers at local level should assume that the number of gender dysphoric people needing medical care and protection against hate crime is doubling every 5 years and look for ways to deal with the cultural factors that may have hitherto held people back from revealing the condition.

#### **Proposed Further Work**

The estimates made in this report are reasonably reliable with regard to the present prevalence, incidence, growth and geographic dispersion of gender variance in the UK. Obviously, there is uncertainty as to whether or not recent trends will continue. Policy makers have to assume that they will. However, the mounting requirement for services has serious implications for resources, especially for specialised adult surgery and adolescent endocrinology. Therefore the growth trends and gender balance among people presenting with gender dysphoria should be closely monitored, especially by the National and regional Specialised Commissioning Groups within the NHS, The Gender Recognition Panel is now gathering valuable data on the people applying for Gender Recognition Certificates. However, these applications lag the data on people presenting for treatment.

Recording new referrals will require cooperation from the gender identity clinics. The London clinic has already provided information for the year to March 2009, when it received 830 referrals, an increase of 7 % compared to the previous year.

To facilitate the analysis and interpretation of the data, and serve as a basis for forecasting, a mathematical model of the transgender population should be prepared. GIRES has already developed a prototype, which might be used for this purpose.

Commissioners of healthcare may wish to see the geographic dispersion of people who have presented for treatment, because, in many cases, they need life-long hormone treatment.

Providers and commissioners of healthcare need detailed data on the demand for the specific surgical procedure that transsexual people undergo. This should be generated from Department of Health records. Recording the

data usefully may require a modification of existing definitions and procedures. The growth in demand seems likely to have implications for surgical capacity.

#### **End Notes and References**

<sup>1</sup> GIRES (2006) Besser, M, Carr, S, Cohen-Kettenis, PT, Connolly, P, De Sutter, P, Diamond, M, Di Ceglie, M, (child and adolescent section only), Higashi, Y, Jones, L., Kruijver, FPM, Martin, J, Playdon, Z-J, Ralph, D, Reed, T, Reid, R, Reiner, WG, Swaab, D, Terry, T, Wilson, P, Wylie K. Atypical gender development – a review, *International Journal of Transgenderism* 9(1):29-44. Available at <a href="https://www.gires.org.uk/Text">www.gires.org.uk/Text</a> Assets/Atypical Gender Development.pdf

<sup>2</sup> North West Lancashire Health Authority v A, D and G, Court of Appeal,

- <sup>4</sup> Government Equalities Office: Gender Reassignment A Guide for Employers: http://www.equalities.gov.uk/PDF/Gender reassignment a guide for employers 2005.pdf.
- <sup>5</sup> The Sex Discrimination (Amendment of Legislation) Regulations 2008, which extend the protection from discrimination on grounds of gender reassignment by banning direct discrimination and harassment by most providers of goods, facilities and services.
- <sup>6</sup> Equal Opportunities Commission, Meeting the gender equality duty for transsexual staff guidance for GB public authorities.

  <a href="http://www.eoc.org.uk/Docs/Meeting">http://www.eoc.org.uk/Docs/Meeting</a> the gender duty for transsexual staff.

  doc

<sup>&</sup>lt;sup>3</sup> Smith, YLS, van Goozens, SHM, Kuiper, AJ, Cohen-Kettenis, PT (2005) Sex reassignment: outcomes and predictors of treatment for adolescent and adult transsexuals. Psychological Medicine 35:89-99.

<sup>&</sup>lt;sup>7</sup> Bockting W., Knudson G. and Goldberg J. M. (2006): Counselling and Mental Health Care of Transgender Adults and Loved Ones; *Vancouver Coastal Health et al.* page 27.

<sup>&</sup>lt;sup>8</sup> West London Mental Health Trust: Minutes of Board Meeting on 24 April 2007.

<sup>&</sup>lt;sup>9</sup> West London Mental Health Trust: Internal management report, dated 7 May 2008.

<sup>&</sup>lt;sup>10</sup> Wilson P, Sharp C, Carr S. (1999). The prevalence of gender dysphoria in Scotland: a primary care study, *British Journal of General Practice*. 49 (449):991-2.

<sup>11</sup> Letter signed by Peter Lilley. Secretary of State for Social Security, 29 June 1995.

- <sup>12</sup> Van Kesteren PJ, Gooren LJ, Megans JA. (1996): An epidemiological and demographic study of transsexuals in The Netherlands, *Arc Sex Behav.* 25 (6):589-600.
- NHS Audit, Information and Analysis Unit (2008): Survey of Patient Satisfaction with Transgender Services; page 16.
- <sup>14</sup> One third (.25/.75) of the 1,023 total referrals recorded in the six NHS clinics.
- <sup>15</sup> E-mail from Dr Richard Curtis
- <sup>16</sup> The AIAU survey describes the movement to and fro between NHS and private care. Of the 494 people who gave the information, 134 (27%) used a mixture of NHS and private services. It is possible that this proportion may be inflated by the need to obtain hair removal from the private sector, because it is rarely provided by the NHS. Dr Richard Curtis estimates that 33% of his patients also obtain treatment from the NHS, This proportion has been used to estimate the NHS/private overlap and avoid double counting in calculating the net total number of referrals in 2008 (.33 X 275 = 91).
- The ONS estimates that the mid-2006 total population of the UK was 60,587,300 and was growing at 0.6 % per annum. By mid 2007, it would therefore have grown to 60.95 million. The proportion of people age 16 and over was 81%, a total of 49.37 million. Incidence of 1,548 per annum people with gender dysphoria who are referred to the specialised treatment centres, expressed per 100,000, would be 3.13 (1,548/49,370,000 X 100,000), conservatively rounded to 3.0.
- <sup>18</sup> Statement by Dr Stuart Lorimer and emails from Dr Kevan Wylie, Dr Susan Carr and Dr Richard Curtis
- Whittle S, Turner L, and Al-Alami M, Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination, p 27, *The Equalities Review*

http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/transgender.pdf

- <sup>20</sup> Cohen-Kettenis, P. T., Delemarre-van de Waal & H. A., Gooren, L. J. G. (2008): *The treatment of adolescent transsexuals: changing insights*". Journal of Sexual Medicine. In press.
- <sup>21</sup> Wren, B.: *Early physical intervention for young people with atypical gender identity development.* Clinical Child Psychology and Psychiatry. 2000 5:220-231.
- <sup>22</sup> Di Ceglie, D., Freedman, D., McPherson, S., & Richardson, P. (2002). Children and adolescents referred to a specialist gender identity development service: clinical features and demographic characteristics. International

Journal of Transgenderism 6 (1), http://www.symposion.com/ijt/ijtvo06no01 01.htm

- <sup>28</sup> The number of transgender adult natal males at 1% of the current 23.5 million adult natal males in the UK would be 235,000 (1/100 X 23,500,000).
- Using the same gender ratio (4 to 1) as is found in the transsexual population, the number of transgender adult natal females would be about 59,000 (235,000/4). That would be about 0.24 % of the current 24.8 million adult females.
- <sup>30</sup> Prevalence:  $300,000/49,370,000 \times 100,000 = 600$  (rounded)
- The ONS estimates that the mid-2006 total population of the UK was 60,587,300 and was growing at 0.6 % per annum. By mid 2007, it would therefore have grown to 60.95 million. The proportion of people age 16 and over was 81%, a total of 49.37 million. Prevalence per 100,000 of people experiencing gender dysphoria of sufficient gravity to have sought medical treatment was 20 (9,824/49,370,000 X 100,000).
- <sup>32</sup> Letter signed by Peter Lilley. Secretary of State for Social Security, 29 June 1995.
- <sup>33</sup> Van Kesteren PJ, Gooren LJ, Megans JA (1996) An epidemiological and demographic study of transsexuals in The Netherlands, *Arc Sex Behav*. 25(6):589-600.
- <sup>34</sup> Wilson P, Sharp C, Carr S. (1999). The prevalence of gender dysphoria in Scotland: a primary care study, *British Journal General Practice*. 49 (449):991-2.
- <sup>35</sup> According to the Office for National Statistics (ONS), 81.23 % of the UK population was aged over 15 years. So the Scottish figure for those assigned as boys at birth and aged over 15, 1 in 7,440 (13.44 per 100,000), was

<sup>&</sup>lt;sup>23</sup> Melzer H. Harrington R, Goodman R and Jenkins R (2001). *Children and Adolescents who try to harm, hurt or kill themselves. ONS.* 

Vennix P, Transvestism – A Serious Matter, Netherlands Institute of Social Sexological Research 2001, page 5. (Published in Dutch) <a href="http://www.lkgtent.nl/lkgtent/brochures/brochures-doc/Travestie%20een%20serieuze%20(nood)zaak.pdf">http://www.lkgtent.nl/lkgtent/brochures/brochures-doc/Travestie%20een%20serieuze%20(nood)zaak.pdf</a>

<sup>&</sup>lt;sup>25</sup> Conway L, How Frequently does Transsexualism Occur? http://ai.eecs.umich.edu/people/conway/TS/TSprevalence.html

<sup>&</sup>lt;sup>26</sup> American Psychological Association, (<a href="http://www.apa.org/topics/transgender.html">http://www.apa.org/topics/transgender.html</a>) retrieved 3 April 2009.

<sup>&</sup>lt;sup>27</sup> The Beaumont Society http://www.beaumontsociety.org.uk/GenderDysphoria.html

divided by 0.8123, giving 1 in 9,160. The figure for natal females, 1 in 31,150 (3.21 per 100,000) was similarly adjusted to 1 in 38,350.

- <sup>36</sup> In 1998, the UK population aged over 15 was 48.133 million, of which 23.585 million were assigned as boys at birth. According to the Scottish prevalence figure (13.44 per 100,000), there would then have been 3,170 who had presented with gender dysphoria. Of those who had been assigned as girls, 790 would have presented with gender dysphoria.
- <sup>37</sup> The Dutch prevalence figure for people assigned as boys at birth was 1 in 11,900, compared to the Scottish figure of 1 in 9,160, i.e. a lower Dutch prevalence. It would therefore indicate a figure of 2,440 for the UK (9,160/11,900~X~3,170). For those assigned as girls, where the Dutch prevalence was higher, the figure is 1,000 (38,350/30,400~X~790). The estimated total for the UK, based on the Dutch prevalence figures, was 3,440 (2,440+1,000)
- <sup>38</sup> Department for Constitutional Affairs: Final Regulatory Impact Assessment -Gender Recognition Bill, November 2003
- <sup>39</sup> Survey of Patient Satisfaction with Transgender Services; NHS Audit, Information and Analysis Unit (AIAU) page 48.
- <sup>40</sup> ILGA-Europe Transgender EuroStudy: Legal Survey and Focus on the Transgender Experience of Health Care (April 2008). Data extracted from questionnaires.
- <sup>41</sup> Figure provided by West London Mental Health Trust on 8 May 2008.
- <sup>42</sup> West London Mental Health Trust, internal report "Gender Business Case", on the need to expand the capacity of the Gender Identity Clinic at Charing Cross Hospital, dated 4 August 2005.
- <sup>43</sup> Office for National Statistics (ONS) http://www.statistics.gov.uk/CCl/nugget.asp?ID=6
- $^{44}$  According the ONS, in 2005, there were 513,000 deaths in England and Wales, when the population was 53,400,000, representing a mortality rate of less than 1 %
- Whittle S, Turner L, and Al-Alami M, Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination, p 27, *The Equalities Review (2007)*

http://www.theequalitiesreview.org.uk/upload/assets/www.theequalitiesreview.org.uk/transgender.pdf

<sup>46</sup> Whittle S, Turner L, and Al-Alami M, Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination, p 78, *The Equalities Review (2007)* 

 $\underline{\text{http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/transgender.pdf}$ 

<sup>47</sup> Whittle S, Turner L, and Al-Alami M, Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination, p 28, *The Equalities Review (2007)* 

http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/transgender.pdf

- <sup>48</sup> ILGA-Europe Transgender EuroStudy: Legal Survey and Focus on the Transgender Experience of Health Care (April 2008) page 43
- <sup>49</sup> ILGA-Europe Transgender EuroStudy: Legal Survey and Focus on the Transgender Experience of Health Case (April 2008). Data extracted from questionnaires.
- <sup>50</sup> Personal communication from Dr Susan Carr, June 2007.
- <sup>51</sup> 1% of 24.8 million adult females = 248,000.
- <sup>52</sup> Personal communication with Dr Domenico Di Ceglie, May 2008.
- <sup>53</sup> E-mail from Keyur Joshi, Service Administrator, May 2009.
- <sup>54</sup> Cohen-Kettenis, P. T., & Pfäfflin, F. (2003).: *Transgenderism and intersexuality in childhood and adolescence: Making choices.* Thousand Oaks, CA: Sage. page 65.
- Delemarre-van de Waal H and Cohen-Kettenis PT. (2006). Clinical management of gender identity disorder in adolescents: a protocol on psychological and paediatric endocrinology aspects, *European Journal of Endocrinology*, 155, Issue suppl\_1, 131-137. <a href="http://www.eje-online.org/cgi/content/abstract/155/suppl\_1/S131">http://www.eje-online.org/cgi/content/abstract/155/suppl\_1/S131</a>
- <sup>56</sup> Curtis, R., Levy, A., Martin, J., Playdon, Z-J., Reed, B., Reed, T., & Wylie, K. (2008): *Medical care for gender variant children and young people:* answering families' questions. Department of Health. page 25. <a href="http://www.gires.org.uk/assets/doh-children-and-adolescents.pdf">http://www.gires.org.uk/assets/doh-children-and-adolescents.pdf</a>
- <sup>57</sup> WPATH (World Professional Association for Transgender Health, previously know as the Harry Benjamin International Gender Dysphoria Association) (2001), author: *The standards of care for gender identity disorders, sixth version.* Symposion Publishing, Düsseldorf. *Page 11.* <a href="http://wpath.org/Documents2/socv6.pdf">http://wpath.org/Documents2/socv6.pdf</a>
- <sup>58</sup> Hembree WC, Cohen-Kettenis PT, Delemarre-van de Waal HA, Gooren LJ, Meyer III WJ, Montori M, Spack NP, and Tangpricha V: Endocrine Treatment of Transsexual Persons: An Endocrine Society Clinical Practice Guideline (2009); Recommendation 2.2; in Press.
- Oral report by Dr Russell Viner at the Royal Society of Medicine conference, regarding the medical care of gender variant adolescents, on 1 October 2008.

<sup>&</sup>lt;sup>60</sup> Personal communication with Dr Norman Spack, - December 2007.

<sup>61</sup> Personal communication with Clinic Administrator— April 2008.

Whittle S, Turner L, and Al-Alami M, Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination, p 78, *The Equalities Review,* pages 63 and 65. http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theegu

alitiesreview.org.uk/transgender.pdf

- <sup>63</sup> Stonewall: *Teachers' Report Homophobic Bullying in Britain's Schools* (2009): Page 9.
- <sup>64</sup> Whittle S, Turner L, and Al-Alami M, Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination, p 78, *The Equalities Review,* page 53.

http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/transgender.pdf

- Whittle S, Turner L, and Al-Alami M, Engendered Penalties: Transgender and Transsexual People's Experiences of Inequality and Discrimination, p 78, *The Equalities Review,* page 78. http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequ
- http://archive.cabinetoffice.gov.uk/equalitiesreview/upload/assets/www.theequalitiesreview.org.uk/transgender.pdf
- NHS Audit, Information and Analysis Unit (2008): Survey of Patient Satisfaction with Transgender Services; page 15.
- <sup>67</sup> Smith, YLS, Van Goozen, SHM, Kuiper, AJ, Cohen-Kettenis, PT (2005). Sex reassignment: outcomes and predictors of treatment for adolescent and adult transsexuals. Psychological Medicine 35:88-99. This study found that regrets were few. No patient was actually dissatisfied; 91.6% were satisfied with their overall appearance and the remaining 8.4% were neutral.
- <sup>68</sup> "Landén, M, Wålinder, J, Hambert, G, Lundström, B (1999) Factors predictive of regret in sex reassignment. Acta Psychiatrica Scandinavica 97(4):284-289. Landén found that only 3.8% of trans people had regrets after surgery. The main predictors of regret were found to be lack of family support and dissatisfaction with surgical results.
- <sup>69</sup> Thames Valley Priorities Committees; Policy Statement 4a: Gender Dysphoria, July 2006.
- <sup>70</sup> Estimated to be 35% of those who have presented with gender dysphoria, as in Scotland (.35 X 10,000); The result of this calculation accords well with that derived from other sources: 6,000 people have transitioned of whom 80% were assigned as boys at birth, among whom 50% require genital and gonadal surgery. All of the 20% who were assigned as girls at birth require chest reconstruction: a total of 3,600 who require surgery ([6,000 X  $.8 \times .5] + [6,000 \times .2 \times 1]$ ).

<sup>&</sup>lt;sup>71</sup> Royal College of Psychiatrists Intercollegiate Standards of Care Committee: Good Practice Guidelines for the Assessment and Treatment of Gender Dysphoria; version 8.3b, page 22

### http://www.rcpsych.ac.uk/pdf/Standards%20of%20Care%20Draft%20v8%203b%20final.pdf

- Parliamentary Forum on Transsexualism: Guidelines for Health Organisations Commissioning Treatment for Trans People. Page 14 <a href="http://www.gires.org.uk/assets/guidelines.pdf">http://www.gires.org.uk/assets/guidelines.pdf</a>
- $^{73}$  With an annual incidence of 1,500 referrals to a specialist NHS or private clinic, of whom 80% were assigned male at birth (trans women), and given that 80% transition, the rounded annual number who require facial hair removal is 960 (1,500 X .8 X .8).
- <sup>74</sup> Williams B, Whatmough P, McGill J and Rushton L, Private funding of elective hospital treatment in England and Wales: national survey, BMJ 2000;320;904-905.
- <sup>75</sup> Personal communication from Dr Richard Curtis, May 2008.
- <sup>76</sup> Annually, 1,200 people undergo transition (1,500 X .8), of whom 80% are trans women. If 50% of them require gender reassignment surgery, this implies an annual requirement for about 480 such surgeries (1,200 X .8 X .5).
- <sup>77</sup> Answers to Parliamentary Questions: <a href="http://www.pfc.org.uk/node/1257">http://www.pfc.org.uk/node/1257</a> also <a href="http://www.pfc.org.uk/node/1294">http://www.pfc.org.uk/node/1257</a>
- <sup>78</sup> Personal communication with Dr Richard Curtis, in May 2008, indicates that virtually all trans men undergo chest reconstruction. If they constitute 20% of the trans people who transition each year, 240 would need chest reconstruction (.2 X .8 X 1,200))
- <sup>79</sup> Van Kesteren J, Gooren j and Megans JA: (1996) An Epidemiological and Demographic Study of Transsexuals in the Netherlands; Archives of Sexual Behaviour, 25, 6.
- <sup>80</sup> De Cuypere G, Van Hemelrijk M, Michel A, Carael B, Heylens G, Rubens R, Hoebeke P, Monstrey S, (2007) Prevalence and demography of transsexualism in Belgium, European Psychiatry 22,137-141.

#### **APPENDIX A**

#### **GLOSSARY of TERMS**

Terminology in the 'transgender' field is varied and constantly shifting as our understanding and perceptions of gender variant conditions changes. In addition, in writing such a glossary of terms there is a risk of merely creating stereotypes. The concept of a 'normal' gender expression associated with a binary man/woman paradigm is highly questionable. Any indication that those who do not conform to the stereotypes are 'abnormal' is incorrect and insulting. Research indicates that atypical gender identity development and a mismatch between body and brain is a result of the natural variability in neurobiological development. Although it is understood that non-trans people who work in the transgender field need a meaningful vocabulary, they should accept that, in communicating with transgender people, the respectful approach is to allow them to self-identify, using whatever terms they choose.

#### **Gender identity**

Gender identity describes the psychological identification of oneself as a boy/man or as a girl/woman. Although there is a presumption that this sense of identity will evolve along binary lines and be consistent with the sex appearance, it does not do so in all people.

#### Sex

Sex refers to the male/female biological development – the phenotype. In an infant, the sex is judged entirely on the genital appearance at birth. Other phenotypic factors such as karyotype (chromosomal configuration) are seldom tested unless a genital anomaly is present. There is a presumption that an apparently male infant will identify as a boy, and vice versa.

#### **Gender role**

The gender role is the social role – the interaction with others which both gives expression to the inner gender identity and reinforces it. Despite the greater gender equality in modern Western culture in terms of the subjects studied in school and at university; the choice of friends; work and domestic arrangements; dress and leisure pursuits, there is still a presumption of conformity with society's 'rules' about what is appropriate for a man or a woman, a boy or a girl, especially in terms of appearance. Too great a transgression often causes anxiety and discomfort in those who witness it.

#### Gender variance/ gender dysphoria / gender identity disorder

It is now understood that the innate gender identity, although powerfully influenced by the sex of the genitalia and the gender of rearing, is not determined by these factors. There is evidence that sex differentiation of the brain may be inconsistent with other sex characteristics, resulting in individuals dressing and/or behaving in a way which is perceived by others as being outside cultural gender norms; these unusual gender expressions may be described as gender variance. Where conforming with these norms causes a persistent personal discomfort, this may be diagnosed as gender dysphoria. In many, this includes some level of disgust with the phenotype, since this contradicts the inner sense of gender identity. Gender dysphoria is not a popular term with those experiencing the condition since it has become associated with the DSM-IV 'clinical diagnosis' gender identity disorder, both these descriptions imply a diagnosis of 'pathology' and mental illness, whereas the more neutral term, gender variance denotes that these departures from stereotypical gender experience and expression are part of a natural, albeit unusual, human development.

#### **Transsexualism**

When gender variance is experienced to the degree that medical intervention is necessary to facilitate a permanent transition to a gender role that accords with the gender identity thus alleviating the intense discomfort, it may be regarded as transsexualism. In the UK, legal protections are already accorded to those described as intending to undergo, undergoing or having undergone permanent gender reassignment, under medical care. The requirement for medical care may be removed by the proposed Equality Act. New legal gender status may be accorded to those who have completed the transition process and intend to live out their lives in the new gender role.

#### Gender confirmation treatment

Those transitioning permanently usually have gender confirmation treatment that includes hormone therapy and often surgery to bring the sex characteristics of the body more in line with the gender identity. Such surgery is sometimes referred to as gender reassignment surgery.

#### Transgender

Transgenderism has had different meanings over time, and in different societies. Currently, it is used as an inclusive term describing all those whose gender expression falls outside the typical gender norms; for example, those who cross-dress intermittently for a variety of reasons including erotic factors (transvestism), as well as those who live continuously outside gender norms, sometimes with, and sometimes without, medical intervention. There is a growing acknowledgement that although there is a great deal of difference between say, a drag artist and a transsexual person, there are nonetheless areas in the transgender field where the distinctions are more blurred; for example, a person who cross dresses intermittently for some years, may later transition fully to the opposite role.

#### Trans men and trans women

The expression 'trans' is often used synonymously with 'transgender' in its broadest sense. Sometimes its use is specific; for instance, those born with female phenotype but identifying as men may be referred to as 'trans men'; and those born with male phenotype but identifying as women may be referred to as 'trans women'. Where trans people have transitioned permanently, many prefer to be regarded as ordinary men and women.

#### Genderqueer

Genderqueer can be used to describe and self-define someone who does not fit and/or actively rejects the binary gender system of "man/woman", "male/female", and can encompass third gender/non-binary identities.

#### Sexual orientation

Sexual orientation is a separate issue from gender identity. Trans people may be gay, straight, bisexual or, occasionally, asexual. Their sexual relationships may remain the same through the transition process, or they may change.

#### APPENDIX B

## PREVALENCE OF PEOPLE WHO HAVE PRESENTED WITH GENDER DYSPHORIA BY POLICE AREA (Sample Size 1,196)

(Sample Size 1, 13	50,	, , ,
	Population	Implied Prevalence
	Density	(per 100,000:
Police Force	(per sq. mile)	16 and over)
Sussex	1036	45
Nottinghamshire	778	43
Surrey	1660	37
Gloucestershire	561	35
Lancashire	1211	35
Warwickshire	691	32
Hertfordshire	1648	31
Lothian and Borders	369	29
West Mercia	413	29
Cambridgeshire	565	27
Hampshire	1127	25
Northamptonshire	696	25
Devon and Cornwall	410	23
Staffordshire	1004	23
Metropolitan	12388	23
North Wales	284	22
North Yorkshire	239	22
South Wales	1522	22
Dyfed Powys	119	22
Norfolk	395	21
Essex	1156	21
Suffolk	468	20
Northern	25	20
Greater Manchester	5171	19
Kent	1120	19
Cheshire	1100	19
Avon and Somerset	824	18
Lincolnshire	296	18
Wiltshire	467	17
	Sussex Nottinghamshire Surrey Gloucestershire Lancashire Warwickshire Hertfordshire Lothian and Borders West Mercia Cambridgeshire Hampshire Northamptonshire Devon and Cornwall Staffordshire Metropolitan North Wales North Yorkshire South Wales Dyfed Powys Norfolk Essex Suffolk Northern Greater Manchester Kent Cheshire Avon and Somerset Lincolnshire	Sussex 1036 Nottinghamshire 778 Surrey 1660 Gloucestershire 561 Lancashire 1211 Warwickshire 691 Hertfordshire 1648 Lothian and Borders 369 West Mercia 413 Cambridgeshire 565 Hampshire 1127 Northamptonshire 696 Devon and Cornwall 410 Staffordshire 1004 Metropolitan 12388 North Wales 284 North Yorkshire 239 South Wales 1522 Dyfed Powys 119 Norfolk 395 Essex 1156 Suffolk 468 Northern 25 Greater Manchester 5171 Kent 1120 Cheshire 1100 Avon and Somerset 124

34	Thames Valley	959	16
15	Leicestershire	963	16
15	Derbyshire	965	15
21	Northumbria	652	15
10	Dorset	685	14
32	Strathclyde	437	14
8	Bedfordshire	1213	14
12	Humberside	655	13
7	Grampian	156	13
17	South Yorkshire	2141	13
5	Tayside	134	13
6	Cumbria	188	12
25	West Yorkshire	2699	12
6	Gwent	931	11
3	Central	275	11
5	Cleveland	2406	9
23	West Midlands	7433	9
12	Merseyside	5507	9
5	Durham	637	8
14	Northern Ireland	322	8
1	<b>Dumfries and Galloway</b>	60	7
1	Fife	697	3
0	City of London	8605	0