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Black Caribbean adults with HIV in England, Wales, and Northern Ireland: an emerging epidemic?

S Dougan, L J C Payne, A E Brown, K A Fenton, L Logan, B G Evans, O N Gill

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See end of article for authors' affiliations

Correspondence to: Sarah Dougan, Health Protection Agency, Communicable Disease Surveillance Centre, 61 Colindale Avenue, London NW9 5EQ, UK; sarah.dougan@hpa.org.uk

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Background: HIV is now well established in the Caribbean, with prevalence in several countries being surpassed only by those of sub-Saharan Africa. Continuing inward migration from the Caribbean and a high incidence of some bacterial STIs among Britain's black Caribbean communities, suggests a considerable potential for HIV spread.
Methods: Data from three national HIV/AIDS surveillance systems were reviewed, providing information on new HIV diagnoses, numbers accessing treatment and care services, and HIV prevalence.
Results: Between 1997 and 2001, 528 black Caribbean adults were newly diagnosed with HIV; 62 new diagnoses in 1997, rising to 176 in 2001. Probable heterosexual acquisition accounted for 335 (63%) infections (161 (48%) males, 174 females), and sex between men 171 (32%). Infection was acquired both in the Caribbean and in the United Kingdom. Numbers of black Caribbeans accessing treatment and care services more than doubled between 1997 (294) and 2001 (691). In 2001, 528 (76%) black Caribbeans accessing services were London residents. Among the Caribbean born previously undiagnosed heterosexuals, HIV prevalence was 0.7%; among men who have sex with men (MSM) it was 10.4%. Of those born in the Caribbean, 73% of male heterosexuals, 50% of female heterosexuals, and 65% of MSM who were previously undiagnosed left the clinic unaware of their HIV infection.
Conclusions: Numbers of black Caribbean adults newly diagnosed and accessing treatment and care services in England, Wales, and Northern Ireland increased between 1997 and 2001. Despite a high prevalence of diagnosed bacterial STIs, prevalence among Caribbean born heterosexuals remains low, but it is high among MSM. Surveillance data highlight the need for targeted HIV prevention among black Caribbeans.

In 2001 there were an estimated 564 000 black Caribbeans living in England, Wales, and Northern Ireland, representing 1% of the total population and 12% of the ethnic minority population.[1] Despite forming a long established part of our society, black Caribbeans still face social and economic disadvantage,[2 3] considerable health inequalities,[4] and racial discrimination.[5]

The HIV epidemic is well established within the Caribbean, with several countries having adult HIV prevalences surpassed only by those of sub-Saharan Africa.[6] UNAIDS estimated that there were over 420 000 people living with HIV/AIDS in 2001 in the Caribbean, 2.3% of the population.[7] Inward migration from the Caribbean to England, Wales, and Northern Ireland continues,[8] as well as frequent travel of the United Kingdom's black Caribbeans between the two regions.[9]

A high incidence of diagnosed bacterial STIs has been described among black Caribbean communities in England, Wales, and Northern Ireland.[10–13] In one study, compared with white counterparts, gonorrhoea rates were 12–13 times higher among black Caribbean males and females, and chlamydia rates were eight times higher in black Caribbean females.[11] Differential patterns of service utilisation[14] and sexual mixing[15] may also contribute to the observed concentration of bacterial STIs within black Caribbean communities. Behavioural studies suggest earlier sexual intercourse among black Caribbeans compared to white people in Britain.[16 17]

In this paper we review the epidemiological data describing HIV/AIDS in black Caribbean adults in England, Wales, and Northern Ireland, in order to describe the evolution of the HIV epidemic in this ethnic group in the United Kingdom, and to examine the inter-relations between epidemics in the Caribbean and the United Kingdom.

METHODS

We reviewed three surveillance systems, held at the Communicable Disease Surveillance Centre (CDSC), that together provide an informative picture of HIV/AIDS among black Caribbean adults (≥15 years) in England, Wales, and Northern Ireland between 1997 and 2001 inclusive. Ethnicity is generally self assigned, and not always directly collected; country of birth is used as a surrogate marker in some surveillance systems.

New HIV diagnoses

Voluntary confidential reports of new HIV diagnoses are received from virologists and clinicians, the latter also reporting new AIDS diagnoses.[18] Ethnicity data are collected on laboratory and AIDS reports, and ethnic categorisations (based on the Office for National Statistics categories) have not changed since 1993. Clinician reporting of new HIV diagnoses was introduced in 2000, collecting information on country of birth, and date of arrival in the United Kingdom, as well as ethnicity. Data on probable route of infection are collected on all reports, through follow up when the information reported is initially incomplete. Probable country of infection is collected on all reports, and for heterosexuals, is followed up.

Misallocation of black Caribbean ethnicity probably occurs at all stages of data handling, typically resulting in reports mistakenly coded black African, and vice versa. Records were "cleaned" before analysis, using country of probable infection, country of birth, and follow up information to identify

Table 1 Numbers and proportions of new diagnoses and HIV infected adults accessing treatment and care services by year and ethnic group in England, Wales, and Northern Ireland: 1997–2001

	Year of diagnosis/seen for treatment or care											
Ethnic group	**1997**	**%**	**1998**	**%**	**1999**	**%**	**2000**	**%**	**2001**	**%**	**Total**	**%**
New diagnoses												
Black Caribbean	62	2.5	71	2.8	98	3.5	121	3.4	176	3.7	528	3.3
Black other	21	0.8	20	0.8	35	1.2	35	1.0	37	0.8	148	0.9
White	980	39.5	1032	40.4	1039	36.6	1375	38.5	1593	33.7	6019	37.2
Black African	488	19.7	631	24.7	851	30.0	1353	37.9	2055	43.5	5378	33.3
Other/mixed	58	2.3	84	3.3	86	3.0	114	3.2	139	2.9	481	3.0
I/P/B*	36	1.5	38	1.5	38	1.3	70	2.0	57	1.2	239	1.5
Not known	837	33.7	680	26.6	689	24.3	502	14.1	669	14.2	3377	20.9
Total	**2482**	**100.0**	**2556**	**100.0**	**2836**	**100.0**	**3570**	**100.0**	**4726**	**100.0**	**16170**	**100.0**
Accessing treatment and care services												
Black Caribbean	294	2.0	358	2.2	436	2.3	517	2.5	691	2.8		
Black other	229	1.6	250	1.5	259	1.4	316	1.5	385	1.6		
White	9205	62.4	10860	66.2	12034	64.8	12884	61.7	14048	57.7		
Black African	2037	13.8	2654	16.2	3526	19.0	4465	21.4	6319	26.0		
Other/mixed	509	3.4	997	6.1	1018	5.5	919	4.4	1079	4.4		
I/P/B*	153	1.0	203	1.2	266	1.4	293	1.4	291	1.2		
Not known	2328	15.8	1089	6.6	1021	5.5	1472	7.1	1528	6.3		
Total	**14755**	**100.0**	**16411**	**100.0**	**18560**	**100.0**	**20866**	**100.0**	**24341**	**100.0**		

(New diagnoses reported by end of June 2003, HIV infected individuals accessing treatment and care services from annual SOPHID surveys).
*I/P/B = Indian/Pakistani/Bangladeshi.

''true'' black Caribbeans. In total, 34 relevant errors in ethnicity coding were corrected; 26 records of black Caribbeans were reassessed as records of black Africans and four as white or ethnicity not reported, and four black Africans reassessed as black Caribbean.

Accessing services for HIV related treatment and care

The Survey of Prevalent HIV Infections Diagnosed (SOPHID) gives a measure of the number of individuals living with diagnosed HIV infection in England, Wales, and Northern Ireland.[19] This annual survey aims to collect information for each individual seen for HIV related treatment and care within the previous calendar year, including the level of antiretroviral therapy and CD4 count when last seen for care, and area of residence. Ethnicity data have been collected since the survey began in 1995.

Undiagnosed HIV

The Unlinked Anonymous Prevalence Monitoring Programme (UAPMP) measures the level of undiagnosed (that is, unrecognised) infection in different population subgroups.[20] Most of the surveys test for HIV in blood samples left over after completion of routine clinical tests. All specimens have patient identifying details permanently removed before testing. The UAPMP genitourinary medicine (GUM) survey uses residual blood taken for syphilis serology, and provides information on HIV prevalence among men who have sex with men (MSM) and heterosexuals attending 15 GUM clinics (seven in London, eight elsewhere in England, Wales, and Northern Ireland), as well as information on the uptake of testing and co-infection with other STIs. Ethnicity data are not collected, but country of birth is, and this is used as a surrogate for ethnicity. A UK GUM clinic is synonymous with an STD clinic in other countries.

The unlinked anonymous survey of neonatal dried blood spots provides information on HIV prevalence among pregnant women by area of residence, using the blood taken from newborn infants for routine metabolic screening to test for maternal antibodies to HIV. Electronic linkage to birth registration records in three participating regions allows the collection of additional demographic data, including mother's country of birth. Data linkage was established in 1997 for the North Thames Region, and 2000 for the South East Thames and the North West regions. A small number of mothers born in central America are included with those born in the Caribbean.

Statistical methods

Descriptive epidemiology has been supplemented by statistical tests where appropriate. χ^2 Tests for trend were calculated using Epi-Info 6 (v.6.04d), and median age in years including the interquartile range (IQR) in Stata 8.

Ethics

Reports of new diagnoses and of those diagnosed and living with HIV are voluntary and confidential. To maintain patient confidentiality no names are held on the database, and surname Soundex codes are used instead.[21] The reporting system has approval under the section 60 regulations of the Health and Social Care Act (Statutory Instrument 1438–June 2002). The ethical and legal basis for unlinked anonymous testing has been described elsewhere[22] and the programme complies with recent guidelines published by the Medical Research Council.[23] All data are stored on restricted and secure databases at CDSC, with strict adherence to the Data Protection Act and Caldicott guidelines.[24]

RESULTS

New diagnoses

Between 1997 and 2001, 528 black Caribbean adults were newly diagnosed with HIV, representing 3.3% of all reported infections in adults over the same period. A 2.8-fold increase in the numbers of newly diagnosed black Caribbeans occurred between 1997 and 2001, the largest proportional increase within an ethnic group after black Africans (table 1). In 1997 there were 62 new HIV diagnoses in black Caribbeans (2.5% of the total reported), in 2001 there were 176 new HIV diagnoses (3.7% of the total reported).

Sex between men and women was the predominant (63%) probable route of infection among black Caribbeans (table 2), compared to 50% (8089/16 170) overall. The proportion of heterosexually acquired new diagnoses among black Caribbeans increased by 18% between 1997 and 2001, an equivalent rise occurring for all ethnicities (38% (945/2482) to 58% (2750/4726)) over the same period. The proportion of

Table 2 Numbers and proportions of black Caribbean adults newly diagnosed, and HIV infected and accessing treatment and care services, by year and probable route of infection, in England, Wales, and Northern Ireland: 1997–2001

	Year of diagnosis/seen for treatment or care											
Probable route of infection	**1997**	**%**	**1998**	**%**	**1999**	**%**	**2000**	**%**	**2001**	**%**	**Total**	**%**
New diagnoses												
Sex between men	27	43.5	27	38.0	30	30.6	36	29.8	51	29.0	171	32.4
Heterosexual, male	17	27.4	26	36.6	31	31.6	37	30.6	50	28.4	161	30.5
Heterosexual, female	13	21.0	16	22.5	34	34.7	44	36.4	67	38.1	174	33.0
Other/undetermined	5	8.1	2	2.8	3	3.1	4	3.3	8	4.5	22	4.2
Total	**62**	**100.0**	**71**	**100.0**	**98**	**100.0**	**121**	**100.0**	**176**	**100.0**	**528**	**100.0**
Accessing treatment and care services												
Sex between men	140	47.0	170	46.4	168	37.3	202	38.0	256	36.3		
Heterosexual,male	63	21.1	69	18.9	88	19.6	105	19.7	165	23.4		
Heterosexual, female	54	18.1	71	19.4	114	25.3	136	25.6	207	29.4		
Other/undetermined	41	13.8	56	15.3	80	17.8	89	16.7	77	10.9		
Total	**298**	**100.0**	**366**	**100.0**	**450**	**100.0**	**532**	**100.0**	**705**	**100.0**		

(New diagnoses reported by end of June 2003, HIV infected individuals accessing treatment and care services from annual SOPHID surveys).

black Caribbeans newly diagnosed, who had probably acquired their infection through sex between men, significantly decreased from 44% in 1997 to 29% in 2001 compared to heterosexuals ($\chi^2 = 5.56$, $p = 0.02$), and overall accounted for 32% of newly diagnosed infections within this ethnic group.

Sex between men and women

Of the 335 black Caribbeans with heterosexually acquired HIV diagnosed between 1997 and 2001, 161 (48%) were male and 174 female. Median age at diagnosis was 35.1 (IQR: 30.1–43.9) and 32.8 (IQR: 26.6–39.9) years respectively. Where probable country of infection was reported, 97 (63%) black Caribbean male heterosexuals were probably infected in the Caribbean, including 58 in Jamaica and 37 (24%) in the United Kingdom (table 3). Of those with a known country of birth, 44 (75%) were born in the Caribbean and 14 (24%) in the United Kingdom. By comparison, 71 (44%) black Caribbean heterosexually infected women were probably infected in the Caribbean, including 51 in Jamaica, and 66 (41%) in the United Kingdom (table 3). Of those with a known country of birth, 47 (62%) were born in the Caribbean and 24 (32%) in the United Kingdom.

Men who have sex with men

The median age at HIV diagnosis of the 171 black Caribbean men probably infected through sex between men was 32.3 years (IQR: 27.4–38.0). Where probable country of infection was reported, 48 (62%) black Caribbean MSM were probably infected in the United Kingdom, 27 (35%) in the Caribbean, including 17 in Jamaica (table 3). Of those MSM for whom country of birth was known, 35 (53%) were born in the Caribbean and 27 (41%) in the United Kingdom.

HIV infected individuals accessing treatment and care

A 2.4-fold increase was observed in the numbers of diagnosed black Caribbeans accessing treatment and care services in England, Wales, and Northern Ireland between 1997 and 2001, equivalent to the increase seen in new diagnoses. In 1997, 294 (2.0%) of the 14 755 adults seen for HIV related treatment and care services were black Caribbeans, rising to 691 (2.8%) of 24 341 in 2001 (table 1). This was the greatest increase observed within an ethnic group, other than the black Africans, over the 4 year period.

From 1999 more black Caribbeans seen for treatment and care had acquired HIV heterosexually rather than through sex between men (table 2). In 2001, 372 (53%) black

Table 3 Region/country of birth and region/country of probable infection of the black Caribbean adults newly diagnosed with HIV between 1997 and 2001 in England, Wales, and Northern Ireland, by probable route of infection. (Reports by the end of June 2003)

		Region/country of probable infection					
Region/country of birth		**Caribbean**	**UK**	**Other**	**Subtotal**	**Not known**	**Total**
Heterosexual males	Caribbean	36	3	3	42	2	**44**
	UK	3	10	–	13	1	**14**
	Other	1	–	–	1	–	**1**
	Subtotal	40	13	3	56	3	**59**
	Not known	57	24	16	97	5	**102**
	Total	**97**	**37**	**19**	**153**	**8**	**161**
Heterosexual females	Caribbean	27	18	2	47	–	**47**
	UK	4	17	1	22	2	**24**
	Other	–	–	5	5	–	**5**
	Subtotal	31	35	8	74	2	**76**
	Not known	40	31	16	87	11	**98**
	Total	**71**	**66**	**24**	**161**	**13**	**174**
Men who have sex with men	Caribbean	14	10	–	24	11	**35**
	UK	–	13	–	13	14	**27**
	Other	–	1	–	1	3	**4**
	Subtotal	14	24	0	38	28	**66**
	Not known	13	24	2	39	66	**105**
	Total	**27**	**48**	**2**	**77**	**94**	**171**

Caribbeans patients accessing care had heterosexual acquisition of infection reported, and 256 (36%) through sex between men ($\chi^2 = 21.26$, $p<0.01$), representing proportional increases of 84% and 52% respectively since 1999.

Uptake of treatment

In the 2001 SOPHID survey, CD4 count and information on the level of antiretroviral therapy at last clinic attendance was reported for 496 (72%) black Caribbeans compared to 78% (18 960/24 350) in all adults. Seventy three (75%) of 97 black Caribbeans with a CD4 cell count <200 cells $\times 10^6$/l were receiving triple therapy or more, compared to 78% of black Africans (1022/1309) and of white people (1244/1599) ($\chi^2 = 0.42$, $p = 0.81$). Uptake of treatment at last clinic attendance was equivalent among heterosexuals and MSM, and between black Caribbeans, black Africans, and white people (data not shown).

Area of residence

In 2001, 528 (76%) black Caribbeans diagnosed and living with HIV were London residents. South east London (boroughs of Lambeth, Lewisham, and Southwark) had the largest resident numbers (185). Outside London, the West Midlands (40) and the south east (31) had the highest numbers of resident black Caribbeans living with diagnosed HIV. Rates per 1000 black Caribbean population were highest in London (1.54 per 1000), south west, and south east (1.14 per 1000), with the West Midlands having a rate of 0.49 per 1000 population (fig 1).

Undiagnosed HIV and uptake of testing

Between 1997 and 2001, prevalence among Caribbean born male heterosexuals attending GUM clinics with previously undiagnosed HIV was 0.7% (37/5682) ($\chi^2 = 0.06$ $p = 0.81$), and for Caribbean born female heterosexuals, 0.6% (26/4604) ($\chi^2 = 4.71$ $p = 0.03$) (table 4). By comparison, prevalence among UK born male and female heterosexuals was 0.16% (180/112125) and 0.12% (142/120497) respectively, and for those born in sub-Saharan Africa, 2.9% (229/7832) and 4.7% (376/7920) respectively. Prevalence among Caribbean born MSM previously undiagnosed at time of clinic visit was 10.4% (20/192) ($\chi^2 = 0.29$ $p = 0.59$). The equivalent prevalence for UK born MSM was 3.8% (793/20 906).

Between 1997 and 2001, of previously undiagnosed HIV infected Caribbean born heterosexuals, 73% of males and 50% of females left the clinic undiagnosed (table 4), compared to 61% (110/180) and 61% (87/142) of previously undiagnosed HIV infected UK born male and female heterosexuals and 47% (107/229) and 46% (173/376) of previously undiagnosed HIV infected sub-Saharan Africa born male and female heterosexuals. For Caribbean born MSM the proportion was 65%, compared to 60% (477/793) for UK born MSM.

Acceptance of voluntary confidential testing (VCT) for HIV increased in Caribbean born heterosexuals from 15% (296/1921) in 1997 to 40% (1032/2594) in 2001 ($\chi^2 = 333$ $p = <0.00001$) and in Caribbean born MSM from 28% (11/40) in 1997 to 41% (19/46) in 2001 ($\chi^2 = 0.91$ $p = 0.34$). Similarly, acceptance of VCT for HIV increased in UK born and sub-Saharan Africa born heterosexuals (24% (11 991/50 669) and 28% (929/3272) in 1997 to 35% (16 977/48 329) and 47% (1810/3837) in 2001 respectively), and UK born MSM (44% (1988/4485) in 1997 to 55% (2434/4451) in 2001).

Between 1997 and 2001, 41% (28/69) of Caribbean born HIV infected heterosexuals and 42% (16/38) of Caribbean born MSM were co-infected with an acute STI at the time of UA HIV testing. By comparison, 29% (121/417) of UK born HIV infected heterosexuals, 21% (182/854) of sub-Saharan Africa born HIV infected heterosexuals and 36% (558/1535) of UK born HIV infected MSM were co-infected with an acute STI at the time of testing.

HIV prevalence among Caribbean born women giving birth

HIV-1 prevalence among women born in central America/Caribbean and giving birth in the North Thames Region between 1997 and 2001 was 0.31% (13/4189), with no significant trend over the years. Ten (77%) of the HIV infected women were born in Jamaica, giving a prevalence of 0.44% (10/2254) among Jamaican born women giving birth between 1997 and 2001 in this region. HIV-1 prevalence among women born in the United Kingdom and giving birth in the North Thames Region between 1997 and 2001 was 0.03% (96/298 485), and for women born in sub-Saharan Africa, 1.51% (606/40 184).

For 2000 and 2001, HIV prevalence among central American/Caribbean born mothers was 0.27% (3/1125) in the South East Thames Region, and 0.0% (0/125) in the North West Region. For comparison, HIV prevalence among UK born women giving birth was 0.02% (15/67 372) in the South East Thames Region, and 0.01% (8/67 125) in the North West Region over the same period. Equivalent figures for mothers born in sub-Saharan Africa were 2.04% (122/5982) and 1.01% (11/1084) respectively.

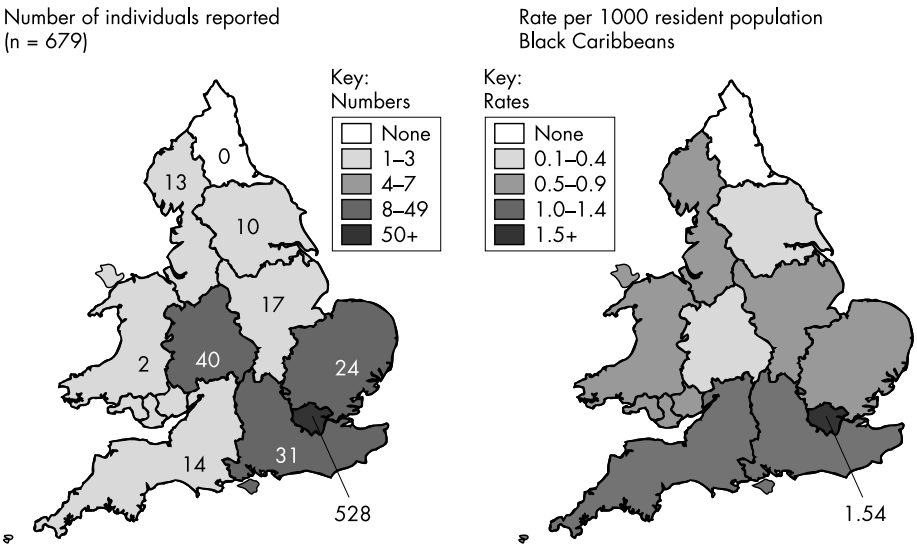

Figure 1 Region of residence of HIV infected black Caribbean adults accessing treatment and care services in England and Wales in 2001 (data from annual SOPHID survey, 2001, population estimates from the Office for National Statistics, Census 2001).

Table 4 Total HIV prevalence and proportion remaining undiagnosed among Caribbean born GUM attendees by probable route of transmission and year of survey (1997–2001) (UAPMP, GUM Survey)

		Total tested in UAPMP GUM survey			HIV undiagnosed before clinic visit			
		Number of samples tested	Number HIV-1 positive	HIV-1 prevalence (%)	Number HIV-1 positive	HIV-1 prevalence (%)	New diagnosis at that visit	Proportion of positives remaining undiagnosed after clinic visit (%)
	Year	(a)	(b)	(b/a)	c	(c/(a − (b − c)))[5]	(d)	((c − d)/c)
Heterosexual males	1997	1095	5	0.5	5	0.5	0	100
	1998	1128	11	1.0	8	0.7	1	88
	1999	1051	9	0.9	9	0.9	4	56
	2000	1079	9	0.8	9	0.8	3	67
	2001	1333	7	0.5	6	0.5	2	67
	Total	**5686**	**41**	**0.7**	**37**	**0.7**	**10**	**73**
Heterosexual females	1997	826	0	0.0	0	0.0	0	–
	1998	769	3	0.4	3	0.4	1	67
	1999	820	7	0.9	7	0.9	2	71
	2000	930	7	0.8	7	0.8	4	43
	2001	1261	11	0.9	9	0.7	6	33
	Total	**4606**	**28**	**0.6**	**26**	**0.6**	**13**	**50**
Men who have sex with men	1997	40	5	12.5	2	5.4	0	100
	1998	40	8	20.0	7	17.9	2	71
	1999	42	5	11.9	3	7.5	3	0
	2000	42	5	11.9	1	2.6	0	100
	2001	46	15	32.6	7	18.4	2	71
	Total	**210**	**38**	**18.1**	**20**	**10.4**	**7**	**65**

DISCUSSION

Our data confirm that numbers of new diagnoses among black Caribbeans and the number of black Caribbeans HIV infected and accessing treatment and care services in England, Wales, and Northern Ireland, have increased rapidly in recent years. Both heterosexual and homosexual sex have contributed to the spread of HIV within this community, with injecting drug use not having a significant role. The increasing importance of heterosexually acquired HIV is reflected in the rising numbers of black Caribbean women newly diagnosed and the numbers accessing treatment and care services. Reasons for this increasing heterosexual contribution may include rising HIV prevalence in the Caribbean,[6] the maturing of the HIV epidemic among black Caribbeans in England, Wales, and Northern Ireland leading to symptomatic individuals presenting with infection, and increased awareness about HIV among black Caribbeans at a local services level. The close inter-relation between HIV in the Caribbean and in England, Wales, and Northern Ireland has been clearly demonstrated. black Caribbeans newly diagnosed with HIV in England, Wales, and Northern Ireland are a mixture of UK and Caribbean born, acquiring HIV in either setting. Nevertheless, the prevalence of HIV among Caribbean born heterosexual GUM clinic attendees and mothers giving birth remains low. Prevalence among Caribbean born MSM attending GUM clinics is high, which may reflect differential patterns of inward migration to the United Kingdom, and is an area for further research.

The three surveillance systems reviewed provide an informative picture of HIV among black Caribbean communities in England, Wales, and Northern Ireland. However there are limitations. The introduction of clinician reporting of new diagnoses in 2000 will have increased the number of total reports received, and the number of black Caribbeans, with increased reports of black Caribbeans and the identification of individuals as black Caribbean who would have previously not had their ethnicity reported. However, data on the numbers of HIV infected individuals accessing treatment and care services show that HIV among black Caribbean communities is increasing, suggesting that reporting artefact has not significantly biased observations in new diagnoses among black Caribbeans. Heterosexual spread of HIV among Caribbeans within England, Wales, and Northern Ireland is also likely to be underestimated, as if exposure to HIV has occurred in more than one country, the country with highest prevalence will be assigned as the likely country of infection.

Information from new diagnoses shows that where country of birth was known a third of black Caribbeans were UK born. Such individuals will have been excluded from GUM and neonatal dried blood spot analyses (country of birth is collected not ethnicity), but may have similar risk behaviours as those born in the Caribbean, may maintain close links to the Caribbean, and be younger than those migrating. As country of birth has only been collected for new diagnoses since 2000, it is not possible to determine whether there has been a proportional increase of UK born black Caribbeans being newly diagnosed with HIV compared to Caribbean born. Prevalence estimates from the unlinked anonymous surveys may be biased, as only 15 GUM clinics

KEY MESSAGES

- The numbers of black Caribbeans newly diagnosed with HIV and numbers diagnosed and accessing HIV related services in England, Wales, and Northern Ireland have increased rapidly in recent years. Sex between men and heterosexual sex have both been important in the spread of HIV among black Caribbeans, with infections acquired in the Caribbean and in the United Kingdom.
- HIV prevalence among Caribbean born heterosexuals attending GUM clinics is relatively low, as is HIV prevalence among Caribbean born pregnant women, while HIV prevalence among Caribbean born MSM is high.
- Increases in HIV diagnoses and HIV prevalence are less than expected when considering the much higher rates of some bacterial STIs found among black Caribbeans in England, Wales, and Northern Ireland, compared to other ethnicities.

are involved in the GUM survey and three regions within the neonatal dried blood spot survey have data linkage. However, of the 15 GUM clinics, seven are in London.

The epidemiology of HIV among black Caribbeans in England, Wales, and Northern Ireland has not been previously described. Concurrent infection with an STI facilitates HIV transmission, including non-ulcerative STIs such as gonorrhoea and chlamydia[25]; however, the epidemiological impact of interactions is difficult to estimate.[26] The high prevalence of bacterial STIs within black Caribbean communities contrasts with the relatively low levels of HIV that exists among black Caribbean heterosexuals. These differences may be explained by sexual mixing patterns or, again, differential migration—areas for future research.

Issues that have not been addressed here include the role of travel back to Caribbean ''home countries'' in the acquisition of HIV among black Caribbean residents of England, Wales, and Northern Ireland and the characteristics of those self assigned as ''black other,'' typically including ''British born black.'' Numbers of new diagnoses among those of black other ethnicity remain low (table 1) and it is difficult to determine from routine reporting whether individuals are of Caribbean ancestry. Among British born second and third generation ethnic minorities a process of acculturation has been described during which there is a progressive shift of prescribed ''cultural norms'' of the ethnic minority group towards those of the ethnic majority.[27] This may result in differing HIV epidemiology, and health promotion and service requirements between those of black other ethnicity and black Caribbeans.

The national strategy for sexual health and HIV aims to reduce inequalities in sexual health, recognising that services must respond to the different needs of different populations.[28] As HIV spreads among the black Caribbean communities in England, Wales, and Northern Ireland, the emerging surveillance evidence must be used to ensure that prevention and services are targeted towards those who need them most, and that widespread transmission of HIV among this ethnic group is averted.

CONTRIBUTORS

SD, LP, KF, and BE conceived the idea for the paper; SD, LP, AB, LL analysed the new diagnoses, SOPHID, UAPMP GUM, and UAPMP DBS surveys respectively, with support from BE and OG; all authors were involved in interpretation of the results and drafting of the paper; SD undertook the main writing of the paper.

Authors' affiliations

S Dougan, L J C Payne, A E Brown, K A Fenton, L Logan, B G Evans, O N Gill, Health Protection Agency, Communicable Disease Surveillance Centre, 61 Colindale Avenue, London NW9 5EQ, UK

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