Measured and reported status for infection with hepatitis B and hepatitis C virus in opiate addicts receiving methadone maintenance treatment. Values are numbers of subjects

	Perception of viral status		
Actual status	**Correct**	**Incorrect**	**Don't know**
Hepatitis C virus (seropositivity 86% (77/90))			
Previously tested (n=79):			
Positive	58	8	4
Negative	8	0	1
Not previously tested (n=11):			
Positive	1	4	2
Negative	3	0	1
Total group (n=90):			
Positive	59	12	6
Negative	11	0	2
Hepatitis B virus (seropositivity 55% (46/84))			
Previously tested (n=62):			
Positive	25	16	0
Negative	18	2	1
Not previously tested (n=22):			
Positive	0	1	5
Negative	6	3	7
Total group (n=84):			
Positive	25	17	5
Negative	24	5	8

Subjects never previously tested for hepatitis B virus were less likely to be seropositive (5/22 *v* 41/62; $\chi^2 = 10.66$, df = 1, $P < 0.005$). A similar pattern was seen for hepatitis C virus positivity (7/11 *v* 70/79; $\chi^2 = 3.06$, df = 1, $P < 0.10$). Of the 33 addicts not previously tested for hepatitis B or hepatitis C virus, only 10 accurately perceived their combined status.

Discussion

Our finding of 86% seropositivity for hepatitis C virus is consistent with the 67% found among Australian injecting drug users[1] and 75% among UK addicts receiving maintenance treatment.[3] The participants' perceptions of their viral status were often inaccurate: for both hepatitis B and hepatitis C virus, they tended to believe they were negative when they were positive. If untested drug users assume they are positive and act accordingly they pose no threat to public health. If they mistakenly presume negative status, this may have serious public health consequences. Clinicians should encourage testing in all patients who are injecting drug users and use this as a catalyst for interventions. As Crofts et al point out,[1] drug treatment alone is not sufficient in reducing hepatitis seroconversion and clinicians must be more vigorous in encouraging drug users to reduce risk behaviours.

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Competing interests: None declared.

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Effect of mass media campaign to reduce socioeconomic differences in women's awareness and behaviour concerning use of folic acid: cross sectional study

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In September 1995, a mass media campaign on the use of folic acid to reduce the risk of fetal neural tube defects started in the Netherlands.[1] Special emphasis was placed on reaching women in low socioeconomic categories. We describe the effect of the campaign on awareness and use of folic acid in relation to socioeconomic status.

Subjects, methods, and results

We measured the effect of the campaign by comparing two cross sectional studies—one conducted before the campaign and one conducted after the campaign. We asked pregnant women in four regions of the Netherlands attending their first or second antenatal visit to fill out a questionnaire; all did so.

We took highest fulfilled education, a recognised indicator of socioeconomic status, and merged it into three levels: low, middle, and high. We used multivariate logistic regression to calculate adjusted odds ratios for high versus low education. The methodology has been described elsewhere.[2]

In both studies, 90% of the pregnancies were planned. After the campaign, 89.1% (1437/1612) of the respondents had heard about folic acid and 76.9% (1240) had heard about it before their pregnancy; the table shows how this is related to level of education.

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Awareness and use of folic acid according to level of education before and after campaign. Values are number (percentage) unless stated otherwise

Variable	Low education	Middle education	High education	Adjusted odds ratio* (95% CI)
All respondents				
1995 (1608)†	601 (37.4)	686 (42.7)	321 (20.0)	—
1996 (1573)‡	550 (35.0)	696 (44.2)	327 (20.8)	—
Awareness of folic acid				
1995:				
Ever	399/598 (66.7)	585/677 (86.4)	296/318 (93.1)	6.2 (3.8 to 10.0)
Before pregnancy	168/601 (28.0)	313/686 (45.6)	183/321 (57.0)	3.2 (2.3 to 4.3)
1996:				
Ever	441/550 (80.2)	651/696 (93.5)	315/327 (96.3)	5.8 (3.0 to 11.1)
Before pregnancy	350/550 (63.6)	580/696 (83.3)	287/327 (87.8)	3.7 (2.5 to 5.5)
Use of folic acid				
1995:				
Some	101/578 (17.5)	181/664 (27.3)	122/134 (38.9)	2.7 (2.0 to 3.8)
Advised period	14/578 (2.4)	33/664 (5.0)	31/314 (9.9)	3.8 (1.9 to 7.4)
1996:				
Some	244/520 (46.9)	387/663 (58.4)	217/312 (69.6)	2.4 (1.8 to 3.3)
Advised period	86/520 (16.5)	150/663 (22.6)	100/312 (32.1)	2.1 (1.5 to 3.0)

*High versus low education. Adjusted for age, gravidity, region, and previous child with a congenital anomaly. †28 missing. ‡39 missing.

In 1996, 53.5% (862) of all the respondents used folic acid (25.1% (411/1636) in 1995) in some part of the advised period (from 4 weeks before conception to 8 weeks after) and 21.0% (339) used it during the entire advised period (4.8% (78) in 1995). The adjusted odds ratios for education and use of folic acid decreased after the campaign but were not statistically significant ($P=0.99$ for some use and $P=0.86$ for use during entire period).

In 1996, 25.8% (146/565) of the women who knew about folic acid before their pregnancy and who were aware of the advised period did not take it (49.2% (184/374) in 1995). The reasons for not taking folic acid did not differ much before and after the campaign. The main reasons were being pregnant already; disliking taking drugs during pregnancy; eating healthy food, or not thinking about the possibility of taking folic acid. Reasons for not taking folic acid were not associated with level of education.

After the campaign, of the informed women who did not take folic acid, 37.8% (28/74) of high educated women versus 54.5% (60/110) of low educated women ($P=0.02$) would consider taking folic acid in a next pregnancy.

Finally, we sought the opinion of women who did not take folic acid about fortification of food with folic acid (only 1996 survey). Overall, 63.6% (311/489) preferred to take folic acid in food rather than by tablet; this was not associated with level of education.

Comment

After the 1995 campaign in the Netherlands, awareness and use of folic acid had increased considerably. Before the campaign an increase of the knowledge to match the level of knowledge of adverse effects of alcohol and smoking was considered adequate—that is, 70% of women planning a pregnancy should know about the advice. The result of our study (in 1996, 76.9% had heard about folic acid before pregnancy) meets this criterion and is thus satisfactory. However, odds ratios for socioeconomic differences in awareness and use of folic acid have not significantly decreased.

For low educated women an increase in the percentage aware of folic acid before pregnancy of 36% was achieved, whereas the increase for high educated women was 31%. The increase in use of folic acid was 29% for low educated women and 31% for high educated women, and for use during the entire advised period the increase was 15% for low educated women and 22% for high educated women. Thus it is clear that low educated women have profited from the campaign, but that socioeconomic differences remained.

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Contributors: MCC, LTWdJ-vdB, and SEB initiated the studies. JSAGS was one of the initiators for focusing on socioeconomic status. KMvdP was involved in the daily coordination of the studies. HEKdW, KMvdP, WJ, and CdR took care of the data collection. HEKdW and KMvdP analysed the data. HEKdW wrote the paper and LTWdJ-vdB and MCC edited the paper. MCC, LTWdJ-vdB, and HEKdW will act as guarantors for the paper.

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Endpiece

Medical statisticians

Medical statistician: one who will not accept that Columbus discovered America … because he said he was looking for India in the trial plan.

Stephen Senn, *Statistical Issues in Drug Development* (1997)