the debate on whether women with minor cytological abnormalities (squamosa atypia or koilocytosis) should be immediately assessed by colposcopy or should be followed up by repeat cytology. Although colposcopy is certainly more sensitive than cytology, its prompt and extensive use in assessing women with abnormal smears has been questioned because it may have negative psychological effects. 1,2

Within a prospective study (European Community SOC 93-102330) that compared the diagnostic accuracy of six months' cytological surveillance to immediate colposcopic assessment in women with minor histological abnormalities, we have measured the level of psychological discomfort (anxiety) in two comparable, age-matched subgroups of 50 women assessed according to the two policies. Psychiatric symptoms were quantitatively and qualitatively assessed by the Spielberger state-trait anxiety inventory (STAI), 3 and by the Z-test. 4 The latter focused on the analysis of "anatomical" contents which are strongly associated with anxiety. 5 Psychiatric tests were administered immediately before colposcopy or smear.

As shown in the table, a minor statistically insignificant (mean (SD) score: colposcopy = 44.6 (10.9); repeat smear = 40.7 (8.7); p = 0.05; y2 = 3.8; df = 4; p = 0.11) increase in anxiety was observed in the group of women undergoing colposcopy according to the STAI test. No difference, however, was observed in the response to Z-test between the two groups, which showed comparable frequencies of anatomical contents.

Review of the article by Knox: Leukemia clusters in childhood

Sir - In 1994 an article was published by Professor Knox presenting the results of a geographical analysis of leukemia clusters in childhood. 6 The objective of this analysis was to validate a previously demonstrated spatial clustering of childhood leukemias by investigating the relative proximity of map features to cluster locations compared with control locations.

Based on 9406 childhood leukemias and non-Hodgkin lymphomas, including 264 cases (or more than 1 in 20) of non-Hodgkin lymphomas, Knox matched, and partially matched and unmatched controls, clustered a relative proximity to several map features, the strongest being for railways. After more detailed analysis of the association with railways, Knox concludes that the use of fossil fuels, especially petroleum, is associated with the occurrence of childhood leukemia clusters. The investigator has made a methodological error in this study related to the selection of controls. Specifically, because leukemia/lymphoma clusters are more likely to occur in densely populated areas than in areas with a small population density, and more densely populated areas are more likely to have railways and industrial facilities located in them, controls should have been selected in a manner similar to that used to select controls. However, Knox instead selects controls from postcodes filed alternately 10 000 before and after the cluster postcode, as well as randomly. This method of control selection creates an artificial difference between the two samples. Any factor related to population density is likely to be statistically associated with the disease clusters. Knox should have defined "control clusters" in the same manner as case clusters, perhaps from clusters of other childhood diseases (for example, non-cancerous conditions such as cleft palate). This would have balanced the aggregation of case clusters in densely populated areas.

Knox states that population density has been taken into account by using church distance to standardize rail distance. However, this adjustment is unlikely to completely account for population density due to the "significant correlation between distance to the nearest church and distance to the nearest railway". When two variables are highly correlated, it is not possible to adjust for the effects of one variable on another.

In fact, the stratified analysis by degree of population densities (second paragraph, page 372) suggests population density is not accounted for. In this analysis, the difference in mean rail distance between clusters and controls in the higher density areas was only 0.12 km and not statistically significant, compared with the lower density areas where the difference was "more extreme" (1.12 km) and statistically significant. The author, however, incorrectly interprets this as a further confirmation of the hypothesis. Knox's analysis of individual cases and randomly selected controls does not suffer from the limitations noted above. However, this analysis shows associations for a variety of different types of installations which suggest the data are unable to discriminate between potential hazard types. Moreover, data for refineries suggest that risk increases as distance from the refinery increases, an unexpected finding if petroleum use is associated as Childhood leukemia. For example, the relative risk (RR) for residence within 0.3 km of a refinery was RR = 1.17, while at 3-5 km the RR increases to 1.26. Risk decreases at 5-10 km to RR = 1.17, but this irregular dose-response pattern is consistent with a petroleum related effect. Similar patterns of irregular dose-response are observed for "lessor oil hazards" such as oil storage and oil distribution terminals, and for fossil fuelled power stations.

Finally, the heterogeneous patient group consisting of leukemia cases and non-Hodgkin cases and the lack of statistically significant associations with roadways, which would be expected if fossil fuel use were associated with childhood leukemia clusters, also argue against the validity of Knox's findings and conclusions. 7 Furthermore, Knox makes a distinction between primary and secondary associations, without any scientific justification.

In conclusion, the geographical analysis presented by Knox suffers from serious methodological and conceptual problems, cannot be used to support or refute a relationship between leukemia clusters and environmental exposures from fossil fuel combustion.


Smoking and health promotion in Nazi Germany

Sir—Hermann Brenner’s letter 1 seems to consider that our article “Smoking and health promotion in Nazi Germany” 2 should have contained a table summarising the various informative individual-level studies” of interventions aimed at reducing smoking. This seems to rather spectacularly miss the central point of our piece, which is that to understand smoking behaviour in populations, some knowledge of the historical and social background is required. By discussing the possible reasons for the continuing high levels of smoking in Germany, backed up by a cohort analysis stretching back to those who initiated their smoking during or before the second world war, and not referring to the possible long term influence of one of the most dramatic (and fortunately, in what it accompanied, historically unique) prohibitionist movements the world has seen, seems bizarre. This is especially the case when the reasons Brenner cites for the remaining high rates of smoking—the lack of restrictive smoking policies in workplaces and on transport, together with a paucity of health education activity among youngsters—are exactly those which the Nazis implemented, with little success.

Understanding behaviours as complex as smoking requires a considerably more sophisticated view of how the world is than one which sees individual-level motivation as...
primary. The biological and psychological dependence induced by sustained nicotine use and the no less fundamental economic dependence of capitalism on expanding poten-
tial markets cannot be considered sep-
Nenly.7 The social function of smoking and the contribution of the status as a smoker to the construction of identities must also be considered to our article. Possible conscious consideration of smoking as a form of resistance cannot be easily dismissed.8 Thus smoking among adolescent women can simultaneously represent and construct re-
sistance to gender stereotyping. In the Nazi period, the Hitler Youth surveillance teams, at least, understood this point. In a Hitler Youth report on the anti-authoritarian Ham-

terbungs Swings Youth, the contribution of smok-
g to general degeneracy was clear: “The dance music was all English and American. Only smoking dancing and jitt-
terbugging took place. At the entrance to the hall stood a notice on which the words “Swing prohibited” had been altered to “Swing requested”. . . . The dancers were an appealing lot. None of the dancing in the dance normally, there was only swing of the worst sort. Sometimes two boys danced with one girl; sometimes several couples formed a circle, linking arms and jumping, slapping rubber bands on their hair, jumping, singing, their hands together, and then, bent double, with the top half of the body hanging loosely down, long hair flopping into the face, they dragged themselves round practically on their knees. When the band played a rumba, the dancers went into wild ecstasy . . . The band played wilder and wilder items; none of the players were sit-
ting down any longer, they all tumbled to the floor, the stage like wild creatures. Several boys could be observed dancing together, always with two cigarettes in the mouth, one in each corner.”9

A “careful review of more informative in-
dividual-level studies” of smoking cessation which Brenner asks for, has, in fact, been carried out: outcomes regarding the effects of individual education. Interventions in collective settings such as schools, even when well developed, can have very dis-
appointing outcomes.10-12 Claims for dramatic effects – such as the 80% reduction in smoking consequent on a prohibition of work-
place smoking in the study by Brenner,13 tend to be based on investigations which are meth-
oologically very poor. Recently the results of a series of methodologically high quality evaluations of smoking cessation inter-
ventions have appeared, showing es-
sentially no additional effect of well developed, community-based interventions over secular trends.12,13 Changes in smoking behaviour do occur, but they cannot be attributed with any degree of cer-
tainty to Brenner’s favoured explanations. A deeper understanding of the cultural, social, and economic foundations – and con-
sequences – of public policy in relation to smoking is needed. Indeed, an interest in consequences may be of particular import-
ance.14 Of relevance to atteme-
tory to atomise smoking intervention is the pos-
ses, a more considered approach to what people do is required. This must involve re-
sisting the – sometimes understandable – desire to forget history.

7 Wearing B, Wearing S, Kelly R. Adolescent women, identity and smoking: leisure ex-
9 Sanders D. Smoking cessation interventions: is patient education effective? London School of Hygiene and Tropical Medicine: PHP De-
partmental Publication No. 6, 1992.
10 Nut-Hamstring J, van Gijn A, Simpson JM, Carford J. Evaluation of two school smoking-
14 Lando H, Pechacek TF, Pirie PL, et al. Changes in adult cigarette smoking prevalence in the Minnesota heart health programme. Am J Pub-
lic Health 1995;85:209-16.
16 Marsh A, McKay K. Poor smokers. London: Pol-
ly Studies Institute, 1994.

BOOK REVIEWS

Urbanisation and Mental Health in De-
veloping Countries. Trudy Harpham and
Ihona Blue (eds). (Pp 266; £25.00). Al-

This book makes a useful contribution to the extraordinarily limited number of pub-
lications on mental health and illness in de-
veloping countries. The structure is sensible: it comprises a review of the relationship be-
 tween urbanisation and mental health (in-
cluding a historical review), two chapters on the processes of migration and mental health; four on case studies of particularly vulnerable groups, two on research methods, and two on future responses. It is a truly international contribution of so much material from non-English speaking coun-
tries is particularly welcome; much is from Latin America, and contributors come from 11 countries in all.

Inevitably, given the wide range of con-
tributors, some chapters seem crisper and better argued than others. Among the most interesting is a detailed account of how in-
habitants of Latin America think about and deal with mental illness. Nearly all sufferers make their way to a doctor, but many also see a religious healer somewhere along the way. None of these healers appear to be from the major Brazilian religion, Roman Catholicism. Class differences are mentioned in passing: beliefs that the mad possess a rich interior life is not one shared by the poor. Exploring the boundaries of mental illness is a tantalising topic that these researchers, like many others, avoid.

New problems are undoubtedly just over the horizon. Mental health service's responses to AIDS are still at a very rudimentary stage. The management of depressed or demented old people is something that will increasingly exercise politicians and service planners as well as relatives in the next decades.

Migration out of agricultural villages into cities has been described as one of the greatest changes in human behaviour in history. It is certainly happening on a large scale. Some of the effects are hard to detect, but popu-
lations in developing countries are increasing at the rate of a million a week. Mexico City is due to pass the 30 million mark any day now. More than half the world’s population will be made up by the end of the century if AIDS will have orphaned up to 10 million children.

We know that mental illness is more pre-
valent in poor urban populations than in rich ones and most of it is unrecognised by primary health care workers. At present our response, both intellectual and practical, seems quite inadequate to the presenting problems.

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A Strategy for Cancer Control in Scot-

This booklet written by the late Dr Calum Muir and Dr Patricia McKinney for the Scot-
Ish Forum for Public Health Medicine is a concise but wide ranging review of topics such as the current burden of cancer in Scotland, primary and secondary prevention strategies, and cancer survival. The authors propose a 13 point strategy for cancer control, the most important of which is the creation of a broad-
based national standing committee on cancer control to determine priorities and assess pro-
gress and costs continuously. Other re-
commendations include efforts to reduce exposures to known risk factors such as too-
bacco and excess alcohol consumption while increasing consumption of dietary factors known to be protective against many forms of the disease. The authors also recommend that Recommendations for screening are that na-
tional coverage should be ensured for cervix uteri cancer screening while an evaluation should be carried out on the feasibility of breast cancer screening in Scotland. Finally, the au-
thors recognise that evaluation of a cancer control programme can only be carried out where high quality statistical and epi-
"demiological services exist and therefore the