Introduction
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The first systematic ecological studies of crime and delinquency were published in France and England during the first half of the nineteenth century (Voss & Peterson, 1971). Crime rates calculated for clusters of geographical regions revealed that criminal offenders were not randomly distributed throughout the population. Rather, particular areas referred to as "low neighbourhoods" had high concentrations of criminals. Conditions of poverty and overcrowding, coupled with extensive exposure to crime, were alleged to account for the high crime rates in certain areas. The conclusion drawn from these reports was that social disorganization, or the social climate of the environment, was responsible for the development of criminal behaviour. This causal observation was echoed in America in the 1820s and 1830s, when social critics pointed to defective community organization as the basis of crime, mental illness, and other forms of deviance. Attention was focused on the social climate in high crime rate areas rather than on an inherent predisposition to deviant behaviour among certain types of people.

Ecological studies of crime and delinquency continued to flourish in the first three decades of the present century. Much of this research was influenced by the Chicago school of urban sociology, which extended Darwinian notions of evolution to the process of city growth and expansion. An essential feature of this theory is that cities have evolved into a series of natural areas in the shape of concentric circles or zones. Each zone is presumably inhabited by people with different background characteristics. The innermost circle was the business area, in which the residents were by and large transients, living in hotels. The second zone, designated the "transition area", was the industrial section, populated primarily by
unskilled labourers and their families. The third zone was a residential area inhibited primarily by skilled workers. The outermost concentric circles were upper-middle-class residential neighbourhoods.

Within this framework, Shaw & McKay (1971) examined the distribution of home addresses of several thousand male school truants, juvenile delinquents, and adult offenders. Using various maps of Chicago, they showed that all three rates tended to decrease with increasing distance from the centre of the city. The highest rates occurred among the poorest populations, and the lowest rates were found in the high socioeconomic residential zones. In addition, recidivism (relapse) rates also declined with greater distance from the centre of the city. Shaw and McKay subsequently found the same pattern of results in Philadelphia, Richmond, Cleveland, Birmingham, Denver and Seattle.

Like their nineteenth-century predecessors, these ecologists attributed the geographical pattern of social problems mainly to the inherent social climate of the area. Specifically, they suggested that unconventional norms and values endemic to those areas were responsible for the rates observed. This climate developed out of the economic growth and structure of the city itself and was influenced by the poor economic status of the inhabitants of the target areas. As one source of evidence they pointed out that the high crime rate sections of Chicago in 1900-1906 were also the high crime rate sections in 1917-1923, even though the ethnic composition of these areas had shifted. Moreover, they showed that as ethnic groups moved in and out of such areas, the delinquency rates for these groups increased and decreased, respectively.
Other investigators have confirmed the existence of high rate of delinquency areas and the association of delinquency with poverty. In 1954 an ecological study of delinquency in Baltimore disclosed higher rates in Census Tracts characterized by a lower percentage of owner-occupied homes, lower median rentals, less education, and a 50-50 ratio of whites to nonwhites (Lander, 1971). Bordua studied juvenile delinquency in Detroit for the period 1948-1952 and found higher rates in areas with greater overcrowding, a lower percentage of owner-occupied homes, lower median education, and a higher proportion of unrelated individuals (Bordua, 1971). Both investigators explained the differential delinquency rates in terms of the social climate of high rate areas, which they claimed were unstable communities with “a deficiency in the traditional social controls which maintain conventional behaviour in stable communities” (Lander, 1971).

Two other interesting ecological studies applied the classification scheme developed by Shevky & Bell known as “social area analysis”. This technique cuts across geographical boundaries by grouping Census Tracts along three dimensions of background characteristics: economic status, family status, and ethnic status. Economic status is determined by educational and occupational characteristics. Family status is based on fertility ratios (number of children under 5 years per 1000 females aged 15-44), percentage of women in the labour force, and percentage of single dwelling units; higher family status is associated with relatively high fertility ratios, low rates of working women, and many single-family homes. Ethnic status refers to the proportion of nonwhites and foreign-born per Census Tract; greater proportions indicate lower status according to this scheme. Each Census Tract is categorized according to its ranking on all three dimensions.
The first study examined crime and delinquency rates in Lexington, Kentucky, constructed from 1960 arrest reports (Quinney, 1971). Crime rates were higher in census tracts having lower socioeconomic status and higher proportions of nonwhites, although they were independent of family status. Juvenile delinquency rates followed the same pattern except that areas are low in family status seemed to function as a deterrent to delinquency, because in both low and high economic status social areas, high family status was coupled with lower delinquency rates. Polk analyzed 1960 delinquency rates in Portland using the social area approach and also discovered higher levels of delinquency in areas low in socioeconomic and family status and high in proportions of nonwhites and foreign-born (Polk, 1971). Thus the social area analyses directly link configurations of individual background characteristics to criminal behaviour.

A great deal of ecological evidence indicates that crime and delinquency are not randomly distributed throughout the areas of a city. Higher rates tend to occur among populations with average background characteristics such as low income, low education, and low status occupations. Whether the same pattern occurs for unreported criminal behaviour is an open question, and several investigators have been concerned with this issue. Except for the social area analyses, which link criminal activity more directly to personal background factors, most of the crime and delinquency studies have hypothesized that the social climate of high rate areas is responsible for the existence of deviant behaviour.

In the above perspective it may be noted that built-in spaces for dwelling recognised as locality that reflects peoples' environmental preferences and notions for a quality of life or impressions they retain in mind as memory impressions. The dwellers evaluate the quality or standard
of their dwelling environment against those impressions that they have in their mind as ‘cognitive map’ (Krech, Crutchfield & Bellachy, 1962; Downs & Stea, 1973). “Urban environments, therefore, must match environmental quality criteria and the imagery of their intended occupants. Generally, the specific spatial and other organisations of cities are the result of the interaction between various constraints and possibilities and cognitive processes of individuals and groups” (Rapport, 1977). Different dweller groups have different images of environmental quality – possibly determined by their priority needs of life. Appreciation of good environment depend on the cognitive congruence of the residents concerned (Maran & Rodgers, 1973).

In fact, following the success of Chicago study (Harries, 1974), a group of researchers in different parts of the world utilised “spatial variations and concomitant pattern analysis” approach to unearth ecological bearing on the growth of legally deviant behaviour in urban localities. The need for building up a man-environment model was felt by Zeisel (1975) and the importance of studying interactions of Psycho-Bio-Sociological variables (Sutherland, 1970) in this regard had been recommended by Jeffrey (1977). A comprehensive descriptions in this regard reported by Jones & John (1977); Ghosh (1988); Raine et al. (1994); Sampson & Lauritsen (1994); Piquero & Lawton (2002).

Crime is a social mirror (Sutherland, 1954). A long tradition in criminological research suggests that crime is most prevalent in societies that permit large disparities in the material standards of living of its citizens (Kawachi et al., 1997). If the level of crime is an indicator of the health of society, then the US provides an illustrative case study as one of the most unhealthy of modern industrialized nations. The purpose of this study is to
sketch out a framework for understanding the role of the social environment in producing healthy communities, using crime (or the lack of it) as an indicator of collective wellbeing. Crime is seldom considered as an outcome in public health research. Yet as we hope to demonstrate, crime – especially violent crime – is a sensitive indicator of social relations in society. It is an integral aspect of what Sol Levine termed ‘the quality of life’ of a community. Where social relations are strained, we also tend to observe increased rates of crime, as well as unhealthier and unhappier citizens. Public health researchers can learn much from the theories developed by criminologists to explain variations in crime across nations, and across geographic regions within countries, although crime is seldom considered as an outcome in public health research. Yet major theoretical and empirical although developments in the field of criminology during the past 50 years suggest that the same social environment factors which predict geographic variation in crime rates may also be relevant for explaining community variations in health and wellbeing. Understanding the causes of variability in crime across countries and across regions within a country will help us to solve one of the enduring puzzles in public health, viz., why some communities are healthier than others. Kawachi et al. (1999) present a conceptual framework for investigating the influence of the social context on community health, using crime as the indicator of collective wellbeing. Kawachi et al. (1999) argue that two sets of societal characteristics influence the level of crime; the degree of relative deprivation in society (for instance, measured by the extent of income inequality), and the degree of cohesiveness in social relations among citizens (measured, for instance, by indicators of ‘social capital’ and ‘collective efficacy’). They provided a test of our conceptual framework using state-level ecologic data on violent crimes and property crimes within the USA. Violent crimes (homicide,
assault, robbery) were consistently associated with relative deprivation (income inequality) and indicators of low social capital. Among property crimes, burglary was also associated with deprivation and low social capital. Areas with high crime rates tend also to exhibit higher mortality rates for all causes, suggesting that crime and population health share the same social origins. Crime is thus a mirror of the quality of the social environment vis-à-vis quality of life.

In our case, we want to argue that crime is a window through which we can begin to address the unsolved problem in public health of explaining why some communities are healthier than others. Finding the keys to explain community variations in crime is part of the same endeavour as unlocking the social and ecological antecedents of ill health. The present investigation is an initial attempt to understand the relation between ecological variables of the neighbourhood and crime rates of the North 24 Parganas.