Violence and Crime in Latin America
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CHALLENGES

Background
“Crime and violence” is a major concern in Latin America. The main issue is the high incidence of crime, followed by drug trafficking, proliferation of violent youth gangs, money laundering and domestic violence.

In analyzing the situation, it is clear that most crime and violence is local in scope, affecting primarily the direct victim and local community. However, there is also a global dimension to the causes and, potentially, the solutions. For example, in the case of Latin America, the demand for illegal drugs in the USA and Europe has a clear impact on drug supply and organized crime in a number of countries in the region.

However, such factors are beyond the scope of this paper, where we try to identify cost effective methods to reduce crime and violence within the existing institutional framework. Within this scope, we are confronted with a persistent problem: there is simply very little solid data on crime and violence in the region, compared with more developed countries.

Basic facts about crime and violence in Latin America

Incidence of crime and violence
There is a perception that there has been a recent rise in crime and violence in the region, but there is little hard evidence to support this. Nevertheless, it is clear that it remains a serious problem with a range of significant negative impacts on individuals and society.

Between 1995 and 2002, homicides increased slightly faster than population, but this masks a continuous drop in Central America and a larger rise in South America. In some high-violence countries, such as Colombia and El Salvador, quite large drops have been reported. But to put this in context, the WHO estimates there to be between 73,000 and 90,000 firearms deaths annually in Latin America, three times the world average. Violence is the leading cause of deaths among Latin Americans between the ages of 15 and 44, and Colombia, El Salvador, Venezuela and Brazil have among the highest homicide rates in the world.

High variance of homicide and violence rates
Homicide rates vary widely both geographically and with time, more so than almost any other socio-economic indicator. There are enormous differences between particular urban areas: rates are 10 or 20 times as high in Recife or Medellin as Santiago or Buenos Aires (which, for comparison, are somewhat lower than that in Miami).

Within a single country, homicide rates vary many-fold between regions, and there can be enormous differences even within the same municipality. Overall victimization rates (the proportion of households with a crime victim) also vary,
but do not always correspond to homicide rates. Non-fatal victimization is highest in Venezuela, Mexico, Ecuador, Argentina, Peru and Brazil.

**Gang membership**
In Central America, there is also wide variation in the level of gang membership, for example 500 per 100,000 people in Honduras but only 40 in Nicaragua, according to USAID figures. But reliable figures for gang membership are very difficult to come by. For example, self-reporting gives quite different results from police records. There is also an international dimension, where Latin American nationals engaged in criminal activities in other countries may be deported and contribute to violent gang behavior in their homelands. Whatever the real figures, gangs are a problem which need to be addressed.

**Offenders mostly young men**
Most crime and violence in the region seems to be committed by young men. However, with relatively few offences resulting in arrests, hard figures are difficult to come by. To make matters worse, reporting and clearance rates decline as violence increases: victims rely less on the formal justice system which therefore becomes even less effective.

Two facts do seem to be confirmed by a range of evidence: youth gangs work closely with organized crime syndicates and the most serious violence among young people is committed by gang members.

**Risk factors for juvenile delinquency and gang membership**
Gang membership is a complex social issue, but common root causes include marginalized urban areas, high levels of youth unemployment with little educational opportunity, inadequate justice systems, ready availability of guns, dysfunctional families and high levels of domestic violence. The current high proportion of young people in the population exacerbates the problem.

Contrary to common perception, poverty per se is not a risk factor, except among school drop-outs. Poverty is far from being a sufficient condition for gang membership; the vast majority of the poorest students are not drawn in. Nevertheless, a combination of poverty and dropping out of school does appear to be a significant risk factor.

**Domestic violence rates are high**
Domestic violence, against both wives and children, appears to be high in Latin America, but there is too little data to know whether rates are increasing and how they compare against other regions. Whatever the level, the consequences are harmful and costly to society. Effects include lower earnings by abused women, and a significant contribution to total physical and mental injury.

Domestic violence – particularly sexual abuse of children – has been found to be a significant risk factor for gang membership, youth crime and prostitution in Central America.

**PROPOSED SOLUTIONS**
A major review of the effectiveness of crime prevention was commissioned by the US Congress in the late 90s. The authors’ conclusions were that, unfortunately, there was
barely adequate evidence to establish a provisional list of what works in practice. This was based on published literature in the USA and Europe; in Latin America there is even less hard data available. The American study has been recently updated and extended to include a degree of cost-benefit analysis. We have used this to select programs with the highest benefit-cost ratios which are most appropriate to tackle the specific problems identified in Latin America.

Solution 1: Comprehensive programs targeting at-risk mothers and young children under 5

There is growing evidence that behavior patterns established and reinforced in early childhood continue to influence an individual’s behavior in later life. Targeting young children at risk of abuse or neglect or without the upbringing to develop proper social skills has been shown to reduce juvenile and adult offending.

Two programs seem to be particularly beneficial and cost-effective. The first, developed in Colorado, targeted young mothers during pregnancy and their children from birth to age two. Regular visits by trained nurses improved prenatal care, increased educational achievement and workforce participation, improved mother-infant interactions and the home environment and led to better infant emotional and developmental well-being. This approach seems particularly well suited to Latin America, with its high level of low income, single mother households.

The second program focuses on early childhood education in low-income families, bringing three and four year old children into classroom settings. A number of specific programs have been run in the USA, and they seem to reduce child abuse and neglect, increase high school graduation rates and reduce juvenile and adult offending.

Solution 2: Comprehensive program to deal with youth and gang violence

Interventions to reduce the high school drop out rate in the region would reduce the pool of potential gang members, but educational programs are not within the scope of this paper. However, there are a number of integrated, community-based programs (for example, in Boston) which have significantly reduced gang violence and membership. A carrot and stick approach seems particularly successful: a severe crackdown on the worst offenders and gang leaders, complemented by positive assistance to other gang members.

But such programs will not work everywhere, and could even be counter-productive by drawing attention to gangs and reinforcing their legitimacy in the eyes of vulnerable youths. Equally, schools-based programs may be inappropriate for the region because of the lack of adequate teaching staff. With these constraints in mind, we have focused on three programs in particular which involve intensive monitoring or supervision of offenders and significant involvement from families or the community.

The first program, “Functional Family Therapy”, is based on systematic family intervention with regular visits by a trained counselor, and has been successful with at-risk youths between 10 and 18 with alcohol, drug abuse or delinquency issues. The second, “Adolescent Diversion Project” diverts youths (usually first offenders) from juvenile courts to trained mentors. The third program is “Aggression Replacement Training” and teaches pro-social behavior, anger control and moral reasoning to aggressive adolescents and children.
It is important with any program to target it properly. Resources have generally been focused on the worst areas and highest risk youth, with virtually no chance of success. We believe that a higher success rate and better benefit-cost ratio could be obtained by better targeting resources into communities where the likelihood of success is highest, which unfortunately might not always be those communities with the most need.

Solution 3: Comprehensive prison treatment and reintegration program
Three programs targeting offenders while still in prison have been shown to reduce existing extremely high re-offending rates: drug treatment, educational and vocational programs and cognitive behavioral therapy. Additional benefits may accrue by assisting prisoners to reintegrate into society after release.

Tackling the issues in an integrated way, to address the needs of the individual and community while also pulling together corrections and community service agencies, can be done at quite modest cost, although the benefits are not necessarily large.

Our proposal is to provide well-designed treatment programs in prison, together with a coordinated approach to reintegrating ex-prisoners into society. While none of this is new in principle, a systematic review could make sure that best practice was followed and the effectiveness of programs maximized.

Solution 4: Domestic violence prevention and control
Domestic violence is a complex problem with no easy solutions. It is correlated with, although not necessarily caused by, poverty, unemployment a lack of a social support network and cultural factors.

The program targeting single mothers and their young children, which forms part of our solution 1, helps to reduce child abuse and neglect. In a US study, it was also found that arresting offenders reduced re-offending and also total domestic violence incidents in the neighborhood, but only if the perpetrators were employed and the majority of households had an employed adult. How this would translate to Latin America is unknown.

Overall, a comprehensive review of existing programs is called for, together with a focus on areas with no effective programs. This should include an assessment of these programs on youth crime and gang membership.

COST-BENEFIT ANALYSIS

Valuing benefits of crime reduction programs
There are two ways to look at the benefits: either to measure the reduction in crime overall, or to look at the effect on an individual’s criminal career.

The costs of crime/benefits of crime reduction
The costs of crime are many and varied, and any attempt at a full estimate is likely to leave out significant cost components. Nevertheless, intensive efforts in the USA and UK have now developed such estimates to the stage where policy analysts are beginning to feel comfortable using them to compare programs and as a basis for cost-benefit analysis.
Although reasonable estimates can be made of the direct costs to victims, the broader societal and community costs are more problematic. However, it is clear that people in high crime areas are willing to take expensive measures (such as fitting burglar alarms or using taxis) to avoid becoming victims. An additional factor in Latin America is the lack of confidence in government institutions, with people in high crime areas being more likely to favor a military coup.

The upshot of this is that a program which has a very significant impact on crime might have a much higher cost-benefit ratio than one with a relatively modest effect, even if costs are linear. Such large impacts are more likely to come from multiple or integrated programs.

**The costs of a criminal career**

An individual criminal is likely to engage in a variety of crimes over a number of years and also runs the risk of being arrested, convicted and imprisoned. The total external costs of an individual criminal career in the US have been estimated at between $1.3mn and $1.5mn, but this seems not to take all factors into account. More recently, violence in El Salvador has been estimated to cost 11.5% of GDP. By way of comparison, the total costs to the victims of crime and the criminal justice system in the USA has been calculated as $600bn – about 5% of GDP – while in the UK the total cost of crime is estimated as $60bn, or 2.6% of GDP.

**Cost-benefit analysis of proposed solutions**

**Solution 1: Comprehensive programs targeting at-risk mothers and young children under 5**

Using results from the US, the home visit program by nurses is estimated to cost $9,188 per mother and infant, with benefits of $26,298. The cost of the proposed pre-kindergarten program for three and four year olds is $7,301 per child, with benefits of $17,202. Together, these programs would have a benefit-cost ratio of 2.65, using a 3% discount rate. Using a 6% discount rate reduces the total benefit (taken out to age 33) from $43,500 to $21,750, giving a BCR of 1.32.

Translating this to the Latin American situation means that the costs are lower, but so are the benefits. At a cost of $2,650 per child, the benefits at a 3% discount rate amount to $5,700 or $6,100, valuing a DALY at $1,000 or $5,000 respectively. The BCRs for these two valuations are 2.2 and 2.3. For a 6% discount rate, they reduce to 1.1.

**Solution 2: Comprehensive program to deal with youth and gang violence**

We propose a two-pronged approach of cracking down on gang violence while implementing a youth rehabilitation program. Although there are no cost-benefit analyses available for the gang violence initiative, the BCR for the young offender rehabilitation program is so high that we are confident of an overall significantly favorable benefit-cost ratio.
We assume each of the three juvenile rehabilitation programs we recommend to be needed in equal amounts. The Functional Family Therapy program costs $2,240 per offender, the Adolescent Diversion Project $1,777 per participant and the Aggression Replacement Training program $759. The average cost for all three programs per participant is therefore $1,559, giving benefits of $22,676; a BCR of 14.5 at a discount rate of 3%, falling to 10.9 for a 6% rate. The benefits valued are only for reduced juvenile delinquency, and do not take account of reduced substance abuse or increased long-term productivity.

Translating these to the Latin American situation, the costs reduce to $250 per participant, with benefits (at 3% discount rate) of $2,600 or $2,900 depending on the DALY valuation. This gives BCRs of 10.4 or 11.5 (7.8 or 8.7 at the higher discount rate).

**Solution 3: Comprehensive prison treatment and reintegration program**

Estimates show that the programs we propose which are targeted at prisoners have very favorable benefit-cost ratios, based solely on lower criminal justice costs and savings to crime victims. Re-entry programs looked at in the USA also seem very cost effective: it has been estimated that they break even if the recidivism rate is reduced by only 5%. For the purposes of our calculation, we have included no benefits from this part of the integrated program, making our estimates very conservative.

We assume here that educational, employment and cognitive behavior treatment programs are needed by all offenders, with 50% of them also receiving drug treatment. Total costs per offender are then $2,794.

We do not know whether combined programs have a synergistic effect or not. To take a conservative approach, we assume a diminishing marginal return for additional programs. Assuming that benefits accrue only from educational and vocational programs in prison, the value would be $13,275, giving a benefit-cost ratio of 4.75. Alternatively, reducing the impact of additional programs by 25% gives a BCR of 10.2. These figures are reduced to 3.6 and 7.7 respectively at a 6% discount rate.

Adapting the figures for Latin America, we arrive at benefit-cost ratios of between 3.4 and 8.1 at a 3% discount rate, and 2.6 to 6.1 at a 6% rate. We should emphasize again that these figures are conservative and in reality are likely to be significantly higher.

**Solution 4: Domestic violence prevention and control**

Unfortunately, there are no comprehensive studies available on which to base a proper analysis. We do know, however, that just over one-fifth of the benefit from the new mother/early childhood program are due to reduced child abuse and neglect.

**CONCLUDING REMARKS**

We have recommended a number of cost-effective programs to tackle crime and violence in the region. The actual benefit-cost ratios should be considered illustrative. They are based on extrapolations of US experience and very conservative assumptions. There will
be further indirect benefits, and they can be expected to extend over whole lifetimes in many cases. It is also important to get better information on existing programs in the region before new or changed programs can be implemented.