Breaking the cycle of violence in Khayelitsha: What needs to be done now?

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1. What will happen to the ten thousand children born in Khayelitsha in 2014?

Based on the Census 2011, an estimated ten thousand babies will be born in Khayelitsha in 2014. If they had been born a decade earlier, their most immediate risk would have been HIV infection, but the prevention-of-mother-to child transmission has now reduced the infection rate in all babies to less than 1%. Now, their biggest threat is the environment into which they are born. The immediate environmental risks include acute diarrhoea and respiratory infection, traffic accidents and intentional violence. In her submission, Debra Kaminer describes the prevalence and psychological impact of exposure to violence among children in Khayelitsha. In this submission, I would like to focus on the insidious long-term effects of 'toxic stress' in early childhood, that go some way in explaining the cycle of violence in communities such as Khayelitsha.

The Centre on the Developing Child states that "toxic stress response can occur when a child experiences strong, frequent, and/or prolonged adversity—such as physical or emotional abuse, chronic neglect, caregiver substance abuse or mental illness, exposure to violence, and/or the accumulated burdens of family economic hardship—without adequate adult support. This kind of prolonged activation of the stress response systems can disrupt the development of brain architecture and other organ systems, and increase the risk for stress-related disease and cognitive impairment, well into the adult years".⁴

It should be noted that many children are resilient and do not necessarily suffer toxic stress, because of innate personality traits and protective factors such as a happy and stable family. Even within poorer, unstable communities, there are children and families who, relatively speaking, thrive. They provide some indication of what can be achieved even in the face of poor life circumstances. Conversely, there are some children from happy, stable families who experience toxic stress, as a result of their intrinsic personalities. There is overlap. However, the conditions that predispose to chronic stress are far higher in informal settlements and poorer communities, and for the purposes of this submission, I am implicitly comparing outcomes in Khayelitsha to that of any of the wealthier, more established suburbs of Cape Town.

¹ City of Cape Town Census 2011 statistics http://www.capetown.gov.za/en/stats/2011CensusSuburbs/2011 Census CT Suburb Khayelitsha Profile.pdf. Accessed 8 September 2013

² Médicines Sans Frontières (2011). Khayelitsha 2001-2011: Activity Report – Ten years of HIV/TB Care at Primary Care Level. http://webdav.uct.ac.za/depts/epi/publications/documents/MSF_report_web_FINAL.pdf. Accessed 8 September 2013

³ Kaminer D (2013). Prevalence and psychological impact of exposure to violence among children in Khayelitsha. Department of Psychology and Child Guidance Clinic, University of Cape Town

⁴ Centre on the Developing Child (2013). Toxic Stress: the Facts, Harvard University. http://developingchild.harvard.edu/topics/science of early childhood/toxic stress response/

1.1 Khayelitsha's children are 'programmed for higher risk' by the time of conception

Children of parents who themselves suffered toxic stress are 'genetically programmed' to higher risk of cardiovascular, metabolic, neuro-endocrine and psychiatric disorders in adulthood.⁵ The emerging science of epigenetics has shown how environmental factors such as malnutrition and chronic stress can change the way in which genes are expressed - and those changes can be transmitted to subsequent generations. These changes tend to 'prime' the child to survive, at the expense of the child's ability to thrive through learning, reasoning and social interaction. Put another way, the cycle of violence has *already* affected many of the ten thousand children to be born in Khayelitsha in 2014 – even if they have not yet been conceived.

1.2 Severe stress in pregnant women in Khayelitsha will lead to stressed, low-birth-weight infants

Chronic stress in pregnant mothers reduces birth-weight and stimulates the hypothalamic-pituitary-adrenal (HPA) axis ('stress cascade') and anxiety-related behaviours in children. ⁶ Low-birth weight is strongly associated with behavioural problems, hyperactivity, emotional symptoms, and peer-interaction problems in later life. ⁷ These effects are also mediated by epigenetics and can be transmitted from one generation to the next.

1.3 Toxic stress in Khayelitsha's children will affect their ability to learn, increases risktaking behaviour and leads to higher rates of adult illness and social dysfunction

The long-running Adverse Childhood Experiences Study in the United States (www.acestudy.org) has shown that trauma and other adverse child experiences lead to social, emotional and cognitive impairment, adoption of health- and other risk behaviours, higher rates of disease, disability and social problems in adulthood, and higher rates of premature death. The specific factors associated with the health and social impacts described above were: Abuse (emotional – recurrent threats and humiliation; physical – beating, not spanking; and contact sexual abuse); Household dysfunction (mother treated violently, household member was alcoholic or drug user, household member was imprisoned, household member was chronically depressed, suicidal, mentally ill, or in psychiatric hospital, not raised by both biological parents); and Neglect (physical, emotional). Perhaps surprisingly, the ACE Study found that different categories of social dysfunction (abuse, household dysfunction, and neglect) turned out to have impacts of similar magnitude – implying that addressing all three is equally important.

⁵ Secki J, Holmes M (2007). Mechanisms of Disease: glucocorticoids, their placental metabolism and fetal 'programming' of adult pathophysiology. *Nature Reviews (Endocrinology)* 3: 479-488

⁶ Hobel C, Goldstein A, Barrett E (2008). Psychosocial stress and pregnancy outcome. Clinical Obstetrics & Gynecology 51 (2): 333-348 ⁷ Yang S, Fombonne E, Kramer M (2011). Duration of gestation, size at birth and later childhood behaviour. Paediatric Perinatal Epidemiology. 25(4):377-387

⁸ Felitti V, Anda R (2009). The Relationship of Adverse Childhood Experiences to Adult Medical Disease, Psychiatric Disorders, and Sexual Behavior: Implications for Healthcare. In: Lanius R & E. Vermetten (eds). The Hidden Epidemic: The Impact of Early Life Trauma on Health and Disease, Cambridge University Press

Subsequent critique of the ACE Study has refined its findings, demonstrating that other adverse child experiences (peer rejection, peer victimisation, exposure to community violence, school performance and socio-economic status) are also associated with adult pathology.⁹

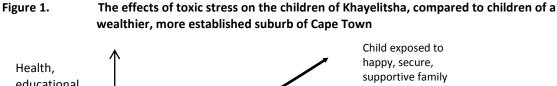
The findings of the ACE Study – of lifelong negative effects of early childhood adversity and toxic stress - have been confirmed by a number of other studies. 10

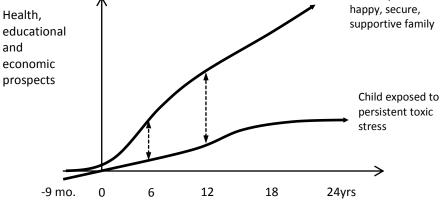
1.4 Earlier exposure to stress starts playing out in teenagers in Khayelitsha

There are strong indications that adolescence is a time of heightened sensitivity to the effects of toxic stress, with increased prevalence of depression and anxiety. It appears that the hypothalamic-pituitary-adrenal axis becomes hyper-reactive, with consequences for further consequences for brain development and behaviour. In particular, the development of connections in the frontal cortex may be affected. This part of the brain is associated with inhibition, insight and self-control, and the intensity of its development peaks between ages 8 and 14 years. In the presence of toxic stress, the ability to learn and control behaviour may be impaired and they may be more susceptible to school drop-out. These findings are borne out by higher rates of anti-social behaviour, use of drugs and HIV infection in young people in informal settlements of Cape Town. 12

1.5 The net effect is stunted potential, which feeds the cycle of violence

The net effect of the chronic stress experienced by the children of Khayelitsha, linked to exposure to trauma and violence, is that their health, educational and economic potential is stunted. This is depicted graphically in Figure 1.





⁹ Finkelhor D, Shattuck A, Turner H, Hamby S (2013). Improving the Adverse Childhood Experiences Study Scale. *Journal of the American Medical Association* (Pediatrics) 167(1):70-5. doi: 10.1001/jamapediatrics.2013.420 ¹⁰ Shonkoff J, Garner A (2012). The Lifelong Effects of Early Childhood Adversity and Toxic Stress. *Pediatrics* 129(1): e232-e246; doi: 10.1542/peds.2011-2663

¹¹ Lupien S, McEwen B, Gunnar M, Heim C (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. *Nature Reviews (Neuroscience)*. 10: 434 - 445

¹² Kalichman S, Simbayi L, Kagee A, Toefy Y, Jooste S, Cain, D, Cherry, C (2006). Associations of poverty, substance use, and HIV transmission risk behaviors in three South African communities. *Social Science & Medicine* 67(7):1641-1649

This figure shows that two children from different communities in Cape Town, who may have the same intrinsic genetic potential (i.e. before the effects of environment), end up on completely different life trajectories – and the gaps just widen over the course of their lives. By adolescence and early adulthood, the extent of this gap is often manifests in risk-taking behaviour that harms both the individual and others.¹³

2. What can we do to protect the ten thousand children to be born in Khayelitsha in 2014?

The above analysis points to a cycle of violence and risk-taking behaviour that urgently needs to be broken. There seem to be three critical points of intervention:

- The first must be directed at very young children and their families in order to get to the root of violence.
- The second must be directed at teenagers as they enter a time of heightened vulnerability and risk-taking behaviour to curb the surge in violence and risk-taking associated with adolescence.
- The third must be directed at the systems of child protection, policing and justice to prevent and control violence that leads to physical and emotional trauma.

2.1 Service delivery is not enough – we need to support families in the home

Much of the focus of State intervention in underserved communities is justifiably on the provision of basic services. However, the recent 'sewage-protests' have illustrated that service delivery is not enough, in the context of a psyche of persistent social exclusion. It is clear that while services *to* the home are important, services *in* the home may be just as critical.

Astoundingly, the building blocks of a safe and stable society – however sophisticated – are the simple factors of food, love, security, and stimulation in early childhood. Nurturing and supportive parenting has positive effects on social, emotional and intellectual development, that can prevent domestic and community violence. The Philani Health & Nutrition Programme, based in Khayelitsha and operating in a number of communities on the Cape Flats has shown that mentorship of mothers by 'positive peer deviants' (women from the same community who are able to protect and nurture their children) can improve maternal and infant outcomes. Mentorship of mothers in Khayelitsha has been shown to improve child growth even where maternal depression persists. The implication is that these mothers are better able to cope, protect and nurture their children – even in the face of poverty and adversity. This is the type of programme that should be extended throughout the greater Cape Town.

Lynch J, Kaplan G, Salonen J (1998). Why do poor people behave poorly? Variation in adult health behaviours and psychosocial characteristics by stages of the socio-economic lifecourse. Social Science and Medicine 44(6):809-819
 World Health Organisation (2009). Preventing violence through the development of safe, stable and nurturing relationships between

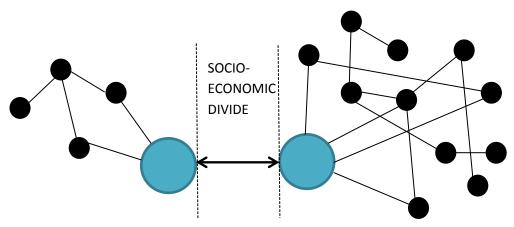
¹⁴ World Health Organisation (2009). Preventing violence through the development of safe, stable and nurturing relationships between children and their parents and caregivers. Violence Prevention – the Evidence. Geneva, Switzerland

¹⁵ Le Roux I et al 2013. Outcomes of home visits for pregnant mothers and their infants: a cluster randomised controlled trial. *AIDS* 27:1461-1471

There is evidence that connecting people together – even in the context of structural inequality - can improve outcomes such as education and health. 16 Children and adolescents who feel supported by important adults in their lives are likely to be more engaged in school and learning. 17 A systematic review examining the influence of 'connectedness' on adolescent sexual and reproductive health outcomes for youth and concluded that there is 'sufficient evidence to support a protective association for family connectedness, partner connectedness and school connectedness.¹⁸

The above evidence supports the thesis that 'connectedness' can have significant impact when it connects individuals one-on-one in companionship and when creates it networks and linkages to external resources. The dual challenge is to i) strengthen companionship and ii) address the paucity of connections to information, resources and people of influence in poorer communities.¹⁹ Connecting individuals across the socio-economic divides could enable marginalised individuals to be linked increasingly to the 'connections' of their primary point of connection²⁰ (Figure 2).

A few strategic connections can expand social and economic networks significantly Figure 2.



The objective of 'connectedness' - so critical to addressing the social and economic marginalisation in Cape Town, does not fit easily into the respective strategies of provincial or municipal departments. In policy terms, it is a 'wicked problem' that requires out-of-the-box thinking and special cross-cutting initiatives.

One such initiative – dubbed Cape Town Embrace - has recently been funded by the DG Murray Trust, and is currently under development. It aims to improve the life prospects of the half of the 75 000 children born each year in Cape Town who would otherwise have limited access to

¹⁶ Rosenberg T (2011). Join the Club: How positive peer pressure can transform the world. WW Norton, New York

¹⁷ Croninger RG, Lee VE. Social capital and dropping out of high school: benefits to at-risk students of teachers' support and guidance. Teachers College Record 2001;103(4):548-581.

¹⁸ Markham C, Lormans D et al (2010). *Journal of Adolescent Health* 46: S23-S41

¹⁹ Altman, M. & Marock, C. (2008) Identifying appropriate interventions to support the transition from schooling to the workplace. Human Sciences Research Council & Centre for Poverty Employment and Growth

Krishna A. (2002) Active Social Capital: Tracing the Roots of Development and Democracy. Columbia University Press. New York

opportunity, by connecting and building the relationships between the people of Cape Town who are currently divided by social and economic circumstance.

Drawing on the networks of faith-based and secular service organisations, the project will seek to establish one-on-one relationships and connections that bridge social and economic divides in the community of Cape Town, centred on developing the potential of children who would otherwise have limited or no access due to poverty and related social ills.

Individuals will be mobilised through faith-based organisations and service organisations to establish a personal connection to the parent/ caregiver of one child born (or to be born) in that year. The required commitment would be to 'look in' on the life of that child (to the extent that he or she was able) through:

- Companionship for the mother-to-be and new mother, helping to cope with the stress of pregnancy and avoiding alcohol and smoking
- Encouraging fathers' involvement;
- Discussing the importance of talking to your child, telling or reading stories, to promote language development
- Early stimulation and development of the infant (facilitating access to toys, books, blankets and where possible and appropriate, food);
- Encouraging access to early childhood development services (helping to identify ECD programmes and facilities and, if appropriate, helping to subsidise attendance);
- Preparing the child for school (encouraging reading, access to educational toys, helping to provide uniforms if appropriate);
- Taking an interest in school attendance and achievement (such as providing small incentives for participation and performance and following-up in the case of poor attendance or drop-out).

The aim of this initiative is to change the life prospects of at least a third of the City's children to be born in the next decade, who are otherwise likely to become part of the cycle of violence and marginalisation.

2.2 We must create a sense of imminent possibility for the teenagers of Khayelitsha

Adolescents experience the 'perfect storm' of higher susceptibility to stress, higher exposure to risk-taking and violence and significant life transitions which are often not successfully negotiated.

Figure 3 illustrates some of the factors associated with higher risk tolerance, suggesting that a lack of real and imminent possibility in life is the direct reason for these levels of tolerance.²¹

²¹ Harrison D (2011). The future of HIV depends on our ability to change the risk calculus for individuals and communities in hyper-endemic countries. Cambridge Medical Journal http://www.cambridgemedicine.org/article/doi/10.7244/cmj-1303391236

For young people in Khayelitsha, high transaction costs (such as the taxi fare needed for job-seeking) and lack of current information about opportunities relevant to them result in apathy and a sense of fatalism. The implication is that 'youth development' must go well beyond motivation and lifeskills information, to create real and immediate connections. Mobile technology may offer considerable value in this regard – in linking opportunity-seekers to opportunity providers – and projects such as CareerPlanet have tried to capitalise on this technology. However, high data costs are prohibitive for young people, and expanding cheap broadband access may open up a range of new possibilities in Khayelitsha.

Another vital initiative is to develop a growing network of young leaders across Khayelitsha, committed to community protection and social innovation. Examples of projects that need to be extended in this regard in Khayelitsha include the youth leadership work of Violence Prevention through Urban Upgrading (VPUU) and Activate! (www.activateleadership.co.za).

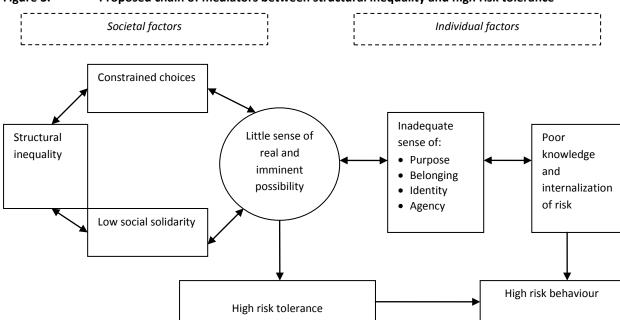


Figure 3. Proposed chain of mediators between structural inequality and high risk tolerance

2.3 We must strengthen systems of child protection, policing and justice

This objective is at the heart of the Commission's work, and I don't have the expertise to comment in detail on the Government services that need to be improved. But I would like to highlight several initiatives that could strengthen the response in Khayelitsha:

2.3.1 Child protection

 The management of cases of neglect and abuse of children is slow, piecemeal and paper-based. Introducing a system of electronic case management (tablets in the hands of social workers and specialised enforcement officers), could speed up the tracking and review of children.

- PATCH (based in Somerset West), together with the University of Cape Town, has devised a "Safe Card" for abused women and children, providing ready information on what to do in the case of abuse and referral services.
- The Children's Institute is currently piloting a review of child deaths at the Salt River mortuary, because non-natural deaths of children are not automatically investigated.

2.3.2 Policing

A real-time tracking system for cases of violence (against children, to start with) could be introduced as part of the electronic case management system described in 2.3.1 above.

2.3.3 *Justice*

The Department of Justice, together with the Lean Institute, is piloting a system to improve the efficiency and effectiveness of services at the Philippi Family Court. If shown to be successful, the system could also be implemented in Khayelitsha.

These are examples of strategies to enhance the systemic response to violence in Khayelitsha. At the end of the day, all of these strategies rely on motivated, effective people — and I think it would be critical to develop innovative and continuing leadership strategies within the child protection, policing and justice systems. Leadership training is not enough. What is needed is a continuing process of networking, learning and innovation across the entire leadership stratum.

3. Note of appreciation

Thank you for the invitation to make a submission to the Commission. I trust some of the insights and suggestions are helpful to your work.