Treating Violence like a contagious disease

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@GSlutkin
dysfunctional communities
poverty
poor schools
family disorders
racism
absent fathers
broken homes
and more
Punishment theory

Everything theory
The everything theory

dysfunctional communities
poverty
poor schools
family disorders
racism
absent fathers
broken homes
and more
EPIDEMIC WAVES (S) of VIOLENCE
(Killings in the U.S.)
plague

typhus

leprosy

smallpox

cholera

yellow fever
New strategies

Mosquito control
Water and sanitation
Hand washing
Sexual behavior change
Immunization
Impregnated bed nets
Immunizations
Chemotherapy
Rat control
New strategies

Early detection

Case finding and therapy

New categories of workers

New systems for disease control
SCIENTIFIC APPROACH
Into the past
Into the past

Scientific strategies
Into the past

Scientific strategies

Health problems
VIOLENCE
AS A
CONTAGIOUS
DISEASE
Contagious
(Dorland’s medical dictionary, 2011)
Contagious
(Dorland’s medical dictionary, 2011)

Capable of being transmitted
African American Youth With Poverty, Crowding, Same Housing Projects

Spano, Rivera, & Bolland 2010
The predictor of violence is

Spano, Rivera, & Bolland 2010
The predictor of violence is... exposure to violence

Spano, Rivera, & Bolland 2010
Exposure to community violence and violent behavior (Adapted from Spano, 2010)
The effect is **dose responsive** between **exposure** to community violence and violent **behavior**.
Contagious
(Dorland’s medical dictionary, 2011)

Capable of being transmitted
DISEASE
DISEASE
(Dorland’s Medical Dictionary, 2011)

Any deviation from or interruption of the normal structure or function of a part organ or system, as manifested by characteristic symptoms and signs, causing morbidity and mortality
VIOLENCE
AS A
CONTAGIOUS
DISEASE
VIOLENCE AS A CONTAGIOUS DISEASE

Population characteristics
VIOLENCE AS A CONTAGIOUS DISEASE

Clustering

Epidemic waves

Transmission

Population characteristics
VIOLENCE
AS A
CONTAGIOUS
DISEASE

Clustering
Cholera in Bangladesh, 1983-2003

Ruiz- Moreno, 2009
Violence in Chicago, 2010

Adapted by Cure Violence from CPD, 2010
VIOLENCE AS A CONTAGIOUS DISEASE

Clustering

Epidemic waves
Cholera in Somalia (Gannet), 1988
VIOLENCE AS A CONTAGIOUS DISEASE

Epidemic waves

Clustering

Transmission
TRANSMISSION OF VIOLENCE

Exposure to Violence

Violence

Source: Mullins et al. 2004; Devries et al. 2011
Spread of Violence: UK Riots
August 4-6, 2011
Spread of Violence: UK Riots

August 4-7, 2011
Spread of Violence: UK Riots
August 4-9, 2011
Spread of Violence: UK Riots
August 4-10, 2011
Spread of Violence: World War 1
June 28, 1913

Assassination of Archduke Franz Ferdinand in Sarajevo, Bosnia
Spread of Violence: World War 1
July 28, 1914

Austria-Hungary declares war on Serbia
Spread of Violence: World War 1
July 29, 1914

Russia enters war to aid Serbia and assert influence in the region
Spread of Violence: World War 1

August 1, 1914

Germany declares war on Russia and France mobilizes its troops
Spread of Violence: World War 1

August 4, 1914

Britain declares war on Germany
Spread of Violence: World War 1

October 29, 1914

Turkey enters war in aid of Germany
Spread of Violence: World War 1

April 15, 1915

Romania enters the war
Spread of Violence: World War 1

May 23, 1915

Italy enters the war
Spread of Violence: World War 1
June 28, 1914 – November 11, 1918
Countries directly involved

United States
Canada
Japan
Brazil
Australia
India
South Africa

British Empire
Belgium
German Empire
Austria-Hungary
Russia

France
Italy

Romania
Serbia
Bulgaria
Greece

Portugal

Ottoman Empire
Spread of Violence: World War 1
June 28, 1914 – November 11, 1918

15 – 20 million people dead
TRANSMISSION

Source: Mullins et al. 2004; Devries et al. 2011
TRANSMISSION

Exposure
Colds

Source: Mullins et al. 2004; Devries et al. 2011
TRANSMISSION

Exposure

TB

Source: Mullins et al. 2004; Devries et al. 2011
TRANSMISSION - OF VIOLENCE

Exposure
Violence

Disease
Violence

Source: Mullins et al. 2004; Devries et al. 2011
Transmission
Transmission across
Transmission across syndromes
Transmission across syndromes

Community Violence

V

P

Community Violence

Mullins et al. 2004; Devries et al. 2011
Transmission across syndromes

Note: Perpetration for males and females, higher risk for males;

Barkin et al. 2001; Hanson et al. 2006
Transmission across syndromes

Community Violence

Note: Perpetration for males and females, higher risk for males;

Barkin et al. 2001; Hanson et al. 2006
Transmission across syndromes

Inter-parental Violence

O (as child)

P

P

Child Abuse

Spouse Abuse

Community violence

Notes: Findings for males and females; also 6 times risk of exposure to community violence

Hamby et al. 2010; Appel & Holden 1998; Herrenkohl et al. 2008;;Hanson et al. 2006; Ehrensaft et al. 2003
Transmission across syndromes

Child Abuse

Community Violence

Intimate partner violence

Child Abuse

Intimate partner violence

Notes: Perpetration for males and females, higher risk for males
Victimization for males and females, higher risk for females
Community violence can include beatings, shootings, stabblings and other.

Widom 1989; Crooks, Scott, Wolfe, Chido, & Killip 2007; Roberts et al. 2010; Ehrensaft et al. 2003; Whitfield, Anda, Dube, & Feltti 2003; Oliver 1993; Cold et al. 2001; Dodge et al. 1989; Glasser et al. 2001; Heyman et al. 2002
Transmission across syndromes

Ethnic/political violence (war)

O, V, (P)

P

P

P

V

Community Violence

Intimate Partner Violence

Child Abuse Violence

Intimate partner violence

Note: Studies included analysis of post WWI, Vietnam War, and religio-political violence (Israel/Palestine)

Transmission across syndromes

community
spousal
family
child
suicide
Transmission across syndromes

community
spousal
family
child
suicide
war
Means of transmission
MEANS OF TRANSMISSION

VIOLENCE
TRANSMISSION
Observing
Witnessing
Following
Trauma
MEANS OF TRANSMISSION

VIOLENCE TRANSMISSION
Observing
Witnessing
Following
Trauma

BRAIN PROCESSING
Cortical
Dopamine/Pain centers
Limbic
TRANSMISSION OF VIOLENCE

Exposure to Violence

Violence

Source: Mullins et al. 2004; Devries et al. 2011
KILLING EPIDEMICS
VIOLENCE BEHAVES EXACTLY LIKE A CONTAGIOUS DISEASE
WE KNOW HOW TO REVERSE EPIDEMICS

World Health Organization
STOPPING EPIDEMICS

1. Interrupt transmission
2. Prevent future spread
3. Change group norms
STOPPING EPIDEMICS

1. Interrupt transmission
2. Prevent future spread
3. Change group norms
INTERRUPT TRANSMISSION
IDENTIFY AND CHANGE THE THINKING OF HIGHEST POTENTIAL TRANSMITTERS

Finding those most likely to shoot or be shot
How Are Epidemics Reversed?

1. INTERRUPT TRANSMISSION

2. PREVENT FUTURE SPREAD

3. CHANGE COMMUNITY NORMS
New norms

Susceptible Persons

Exposure

GROUP IMMUNITY

Transmission Blocked
New categories of workers
DETECTION AND INTERRUPTION
Cutting edge

“breakthrough in the field”
Hospital focused interrupters
Identify and interrupt conflict
STOPPING EPIDEMICS

1. Interrupt transmission

2. Prevent future transmission
CHANGE BEHAVIOR of highest risk
BEHAVIOR CHANGE AGENTS
Workers and training issues

- Credible
- On your side
- Validate
- Get emotion down
- Distract
- New thoughts
- Reframe
- Ask (complex) questions

1. INTERRUPT TRANSMISSION (INTERRUPTERS)
2. CHANGE BEHAVIOR

Worker and training issues

Use credible messengers
Be in their interest
Ensure trust
Ensure safe – physically, socially, psych
New role models, lifelines
New rewards – made you feel good, proud
Social rewards
Problem solving – options, think through, consider how you will feel
New information – social pressure, not everyone does it, alternatives available

Skills, practice
Avoiding situations
Helping friends not do it
Getting/walking away

Overcome barriers
Here and now
CHANGE BEHAVIOR
IDENTIFY AND CHANGE THINKING

CHANGE BEHAVIOR
STOPPING EPIDEMICS

1. Interrupt transmission

World Health Organization
STOPPING EPIDEMICS

1. Interrupt transmission
2. Prevent future transmission
STOPPING EPIDEMICS

1. Interrupt transmission
2. Prevent future transmission
3. Change norms
CHANGE GROUP NORMS

INTERVENERS
- Interrupters
- ORWs
- Community
- Pub ed
- Clergy
- Police

THE 3 VARIABLES
- Norms
- Risk
- Alternatives

BEHAVIORAL OUTCOME
- No VIOLENCE
3. CHANGE NORMS
CHANGE NORMS


DON'T SHOOT.
I want to grow up.

CeaseFire Hotline
866-TO-CEASE
www.ceasefireillinois.org
3. CHANGE NORMS
Group immunity

New norms

Susceptible People → Exposure → Transmission (Spread) → Group immunity NO VIOLENCE
SYSTEM
Epidemic control

SYSTEM
SYSTEM
HEALTH SYSTEM
RESULTS
67% shootings
Results – Logan Square Cure Violence

CURE VIOLENCE

01/99 05/99 09/99 01/00 05/00 09/00 01/01 05/01 09/01 01/02 05/02 09/02 01/03 05/03 09/03 01/04 05/04 09/04 01/05 05/05 09/05 01/06 05/06 09/06 01/07 05/07 09/07 01/08 05/08 09/08 01/09 05/09 09/09 01/10 05/10 09/10 01/11 05/11 09/11 01/12 05/12 09/12

01/99 05/99 09/99 01/00 05/00 09/00 01/01 05/01 09/01 01/02 05/02 09/02 01/03 05/03 09/03 01/04 05/04 09/04 01/05 05/05 09/05 01/06 05/06 09/06 01/07 05/07 09/07 01/08 05/08 09/08 01/09 05/09 09/09 01/10 05/10 09/10 01/11 05/11 09/11 01/12 05/12 09/12
FIRST 6 CURE VIOLENCE COMMUNITIES, 2000–2004

- 6 CEASEFIRE ZONES
- COMPARISON*
- NEIGHBORING*
- CHICAGO*

* These results are all statistically significant with p<0.01
W. Garfield, W. Humboldt, Logan Square, SW Chicago, Auburn Gresham, Rogers Park
8 NEW CURE VIOLENCE COMMUNITIES, 2005–2006

* These results are all statistically significant with p<.01
* * Results are significant with p<.05

Communities = Englewood, Brighton Park, E. Garfield, Albany Park, Little Village, Austin, Grand Boulevard, Woodlawn

CUREVIOLENCE
NEXT 4 CURE VIOLENCE COMMUNITIES, 2006–2007

* Results are significant compared to neighboring (p<0.01)  
* * Results are significant compared to the city (p<.05)
CURE VIOLENCE - Rogers Park

Before

After
INDEPENDENT EVALUATIONS
# Interruptions

100% drop in retaliations

<table>
<thead>
<tr>
<th></th>
<th>CURE VIOLENCE</th>
<th>CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auburn Gresham</td>
<td>-100%</td>
<td>-25%</td>
</tr>
<tr>
<td>Englewood</td>
<td>-100%</td>
<td>-100%</td>
</tr>
<tr>
<td>Logan Square</td>
<td>-100%</td>
<td>+100%</td>
</tr>
<tr>
<td>Rogers Park</td>
<td>no change</td>
<td>n/a</td>
</tr>
<tr>
<td>Southwest</td>
<td>-100%</td>
<td>no change</td>
</tr>
<tr>
<td>West Garfield Park</td>
<td>-46%</td>
<td>+41%</td>
</tr>
<tr>
<td>West Humboldt Park</td>
<td>-50%</td>
<td>-57%</td>
</tr>
<tr>
<td>East Garfield Park</td>
<td>-100%</td>
<td>+60%</td>
</tr>
</tbody>
</table>

Skogan, 2009
DOJ - EXTERNAL EVALUATION

41 - 73% shootings and killings (overall effect seen)

16 - 34% shootings and killings (directly attributable)

15 - 40% shooting density

100% retaliation murders in 5 of 8 communities

85 - 97% helped to jobs, school, out of gang

DEMONSTRATED EFFECTIVE TO REDUCE SHOOTINGS AND KILLINGS

Skogan, 2009
34-56% drops in shootings and killings

Webster, 2012
Latin America

Loiza, Puerto Rico

56% (killings)

San Pedro Sula, Honduras

Interruption work begun 4/13

* Comparison 2011 to 2012, University of Puerto Rico
Africa

Cape Town, South Africa
- 78% shootings
- 66% killings

Kenya
- Election violence

* First 5 months of implementation (Jan-May 2013)
Middle East

Iraq - Bagdad and Basrah:
962 interruptions
>14,000 trainings in viol. Interr.

Syria
Interm. training began 8/2013
IS URBAN VIOLENCE A VIRUS?

Gang killing persists like a terrible infectious disease in our cities. Maybe it should be treated like a disease. By Alex Kotlowitz
“...the approach that will come to prominence.” (2009)
FROM THE DIRECTOR OF
HOOP DREAMS
AND THE AUTHOR OF
THERE ARE NO CHILDREN HERE

THE

INTERRUPTERS

EVERY CITY NEEDS ITS HEROES
TREATING VIOLENCE AS A CONTAGIOUS DISEASE (NATIONAL)
TREATING VIOLENCE AS A CONTAGIOUS DISEASE (INTERNATIONAL)
VIOLENCE

GANG VIOLENCE

URBAN CRIME

ETHNIC- RELIGIOUS CONFLICT

CIVIL WAR

GANG WARLORDISM

GENOCIDE

WAR
HEALTH PROBLEM
OLD VIEW

BAD PEOPLE
ENEMIES

PUNISHMENT

Modern View

Contagious behavior

Interrupt events
Change behavior
Change norms

G. Slutkin, 2007
New language

exposure
behavior
transmission
susceptible
contagious
social pressure
trauma
interruption
behavior change
norm change

G. Slutkin, 2010
Violence is a Disease
More Than a Metaphor
Violence is a Disease
New diagnosis
New approach
New workers
New sector

HEALTH PROBLEM
HEALTH PROBLEM

Scientifically effective
20 replications; 3 ind’t evaluations
Less violence – 30-70% drops
Safer neighborhoods
New hope
THERE IS A WAY OUT
HEALTH PROBLEM
Health sector needs to . . .
Roles

Health depts, ministries
Hospitals
Universities and schools of public health
Doctors and practitioners
Behavior change workers
Community groups
Media
Natural History of an Infectious Disease incl. violence (Individual)

- **Susceptibility**
- **Latency**
- **Incubation**

↑ Clinical

↓ Pre or sub clinical

- Exposure / Infection

- Death

- Chronic

- Relapse

- Intermittent

Cure

G. Slutkin, 2013
Into the past
Thank you!

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@CureViolence
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www.cureviolence.org
Extra slides
INFECTIOUS
CHARACTERISTICS (Individual)

EXPOSURE
SUSCEPTIBILITY
INCUBATION PERIOD
LATENCY
DOSE RESPONSE RELATIONSHIPS
CARRIER STATE
RELAPSE
CHANGING NORMS: TIPPING POINT

NEW NORMS ALSO SPREAD
New norms - Tipping Point

cannot seek knowledge about an innovation until he or she knows it exists.”
Everett Rogers, 1963
CeaseFire started

CeaseFire tripled

In 1/3 of high risk communities

Partially restored

Partially interrupted

Partially interrupted

Projected with fully-funded CeaseFire

Projected 10% annual reduction

Projected 30% annual reduction
In 1/3 of high risk communities

CeaseFire

CeaseFire tripled

Partially interrupted

Restored

Partially interrupted

Projected with fully-funded CeaseFire

CureViolence/CeaseFire and Killings in Chicago
CeaseFire started

CeaseFire tripled

In 1/3 of high risk communities

Partially interrupted

Partially restored

Projected 10% annual reduction

Projected 30% annual reduction

Projected with fully-funded CeaseFire

CureViolence/CeaseFire and Killings in Chicago