Some aspects of socio-ecological models looking back at humanitarian emergencies

Joop de Jong MD PhD
AISSR, University of Amsterdam
Boston University School of Medicine

Oh the trees they do grow high Martin Carthy

Oh the trees they do grow high and the leaves they do grow green, And many's the cold winter's night my love and I have seen. On a cold winter's night my love you and I alone have been.

Oh my bonny boy is young but he's growing, Growing, growing, My bonny boy is young but he's growing

Individual

"Oh father, dear father, you've done to me much harm, For to go and get me married to one who is so young.

For he is only sixteen years old and I am twentyone, Oh my bonny boy is young but he's growing, Growing, growing, My bonny boy is young but he's growing.

Micro
Macro

"Oh daughter, dear daughter, I'll tell you what I'll do, I'll send your love to college for another year or two.

And all around his college cap I'll tie a ribbon blue, For to let the ladies know that he's married, Married, married, To let the ladies know that he's married."

Micro
Meso

Now at the age of sixteen he was a married man, And at the age of seventeen the father to a son, And at the age of eighteen the grass grew over him. Cruel death soon put an end to his growing, Growing, growing, Cruel death soon put an end to his growing.

Micro
Exo

And now my love is dead and in his grave doth lie, The green grass grows over him so very very high.

I'll sit here and mourn his death until the day I die, And I'll watch all o'er his child while he's growing, Growing, growing, I'll watch all o'er his child while he's growing.
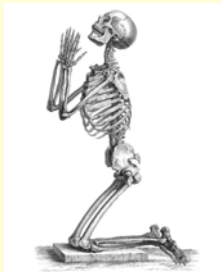
Individual

Time/Chrono-system
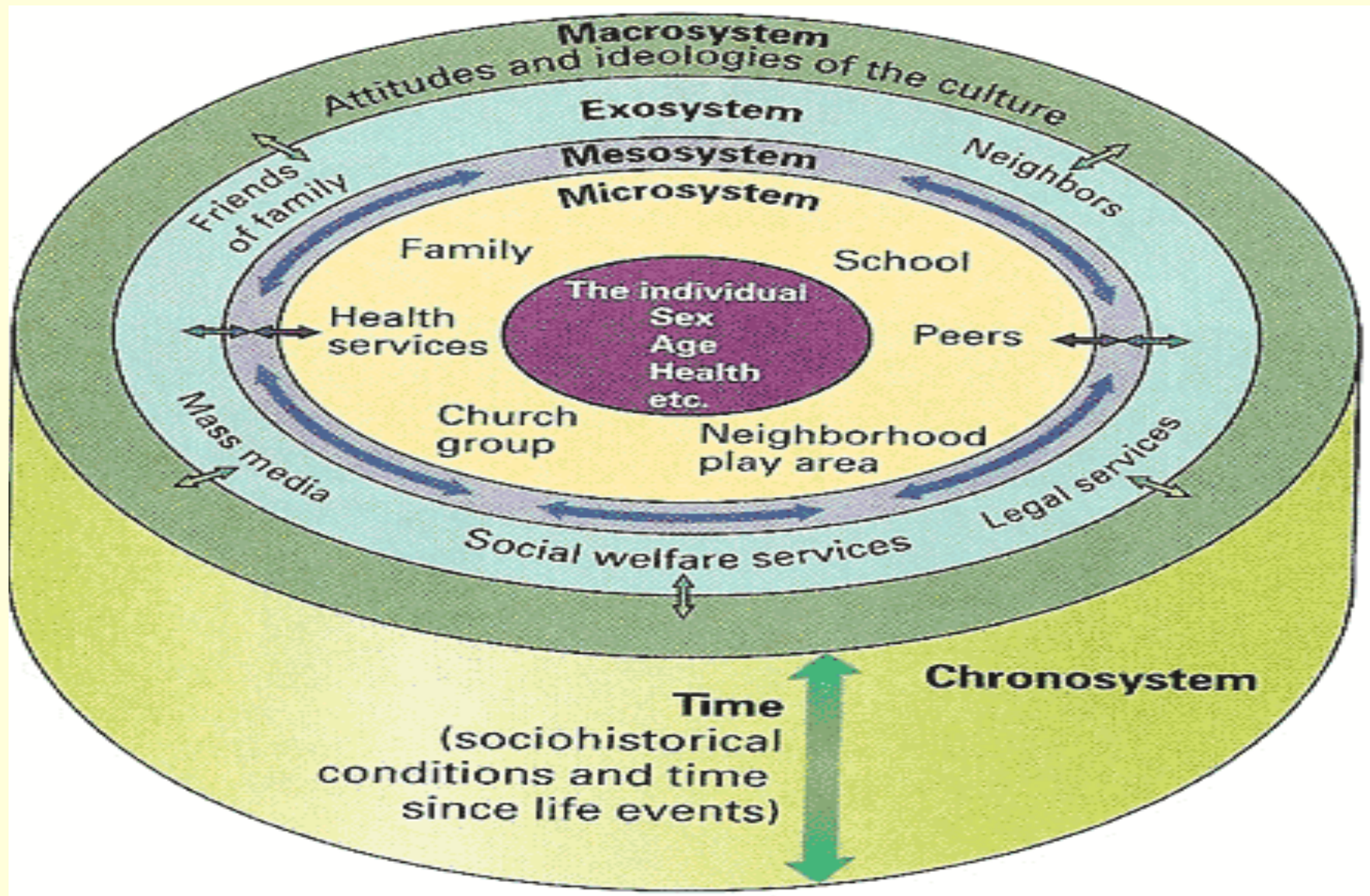
So what is new?

Macrosystem
Attitudes and ideologies of the culture

Exosystem

Neighbors

Mesosystem

Microsystem

Friends of family

Family

School

Health services

The individual
Sex
Age
Health
etc.

Peers

Church group

Neighborhood play area

Mass media

Social welfare services

Legal services

Chronosystem

Time
(sociohistorical conditions and time since life events)

Advantage 1: 1 size fits all   **Socio-ecological model**

Interventions (70%) and research (30%) among adults and children in a variety of cultures

- ❑ Afghanistan
- ❑ Algeria
- ❑ Angola
- ❑ Bangladesh
- ❑ Bosnia
- ❑ Burundi
- ❑ Cambodia
- ❑ China
- ❑ Eritrea
- ❑ Ethiopia
- ❑ Gaza
- ❑ Guinea Bissau
- ❑ Haiti
- ❑ India
- ❑ Indonesia

- ❑ Kosova
- ❑ Mozambique
- ❑ Namibia
- ❑ Nepal
- ❑ Netherlands
- ❑ Philippines
- ❑ Rwanda
- ❑ Sierra Leone
- ❑ Sri Lanka
- ❑ Sudan
- ❑ Surinam
- ❑ South Africa
- ❑ Swaziland
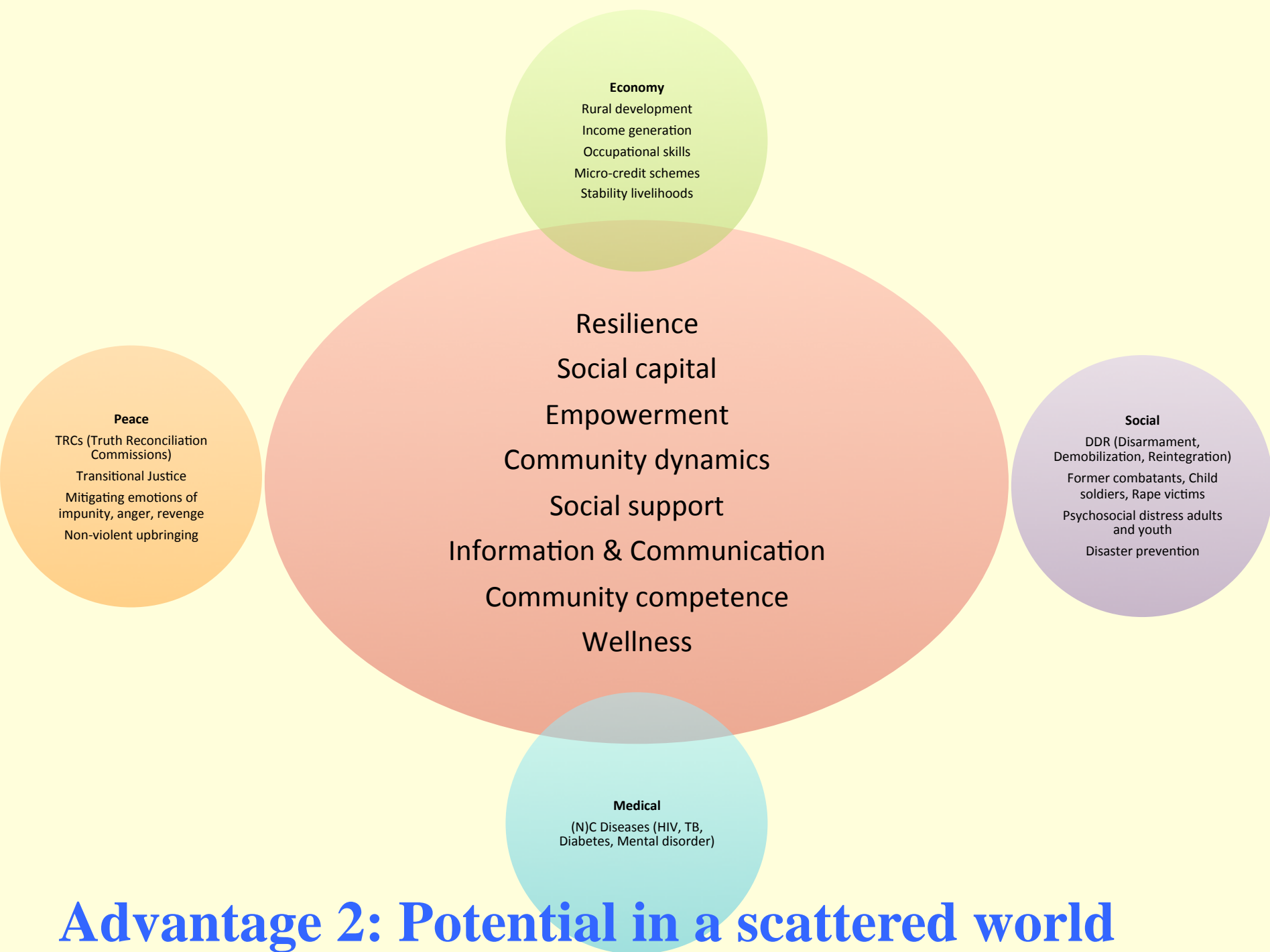- ❑ Uganda
- ❑ United States

Challenge

Go beyond 'Alma Ata' (1978)

Pool and share resources →

Alma Ata, the capital of Kazakhstan, site of the 1978 WHO/UNICEF conference 'Health for All by the Year 2000'

Economy
Rural development
Income generation
Occupational skills
Micro-credit schemes
Stability livelihoods

Peace
TRCs (Truth Reconciliation Commissions)
Transitional Justice
Mitigating emotions of impunity, anger, revenge
Non-violent upbringing

Resilience

Social capital

Empowerment

Community dynamics

Social support

Information & Communication

Community competence

Wellness

Social
DDR (Disarmament, Demobilization, Reintegration)
Former combatants, Child soldiers, Rape victims
Psychosocial distress adults and youth
Disaster prevention

Medical
(N)C Diseases (HIV, TB, Diabetes, Mental disorder)

Advantage 2: Potential in a scattered world

Health systems in peace time
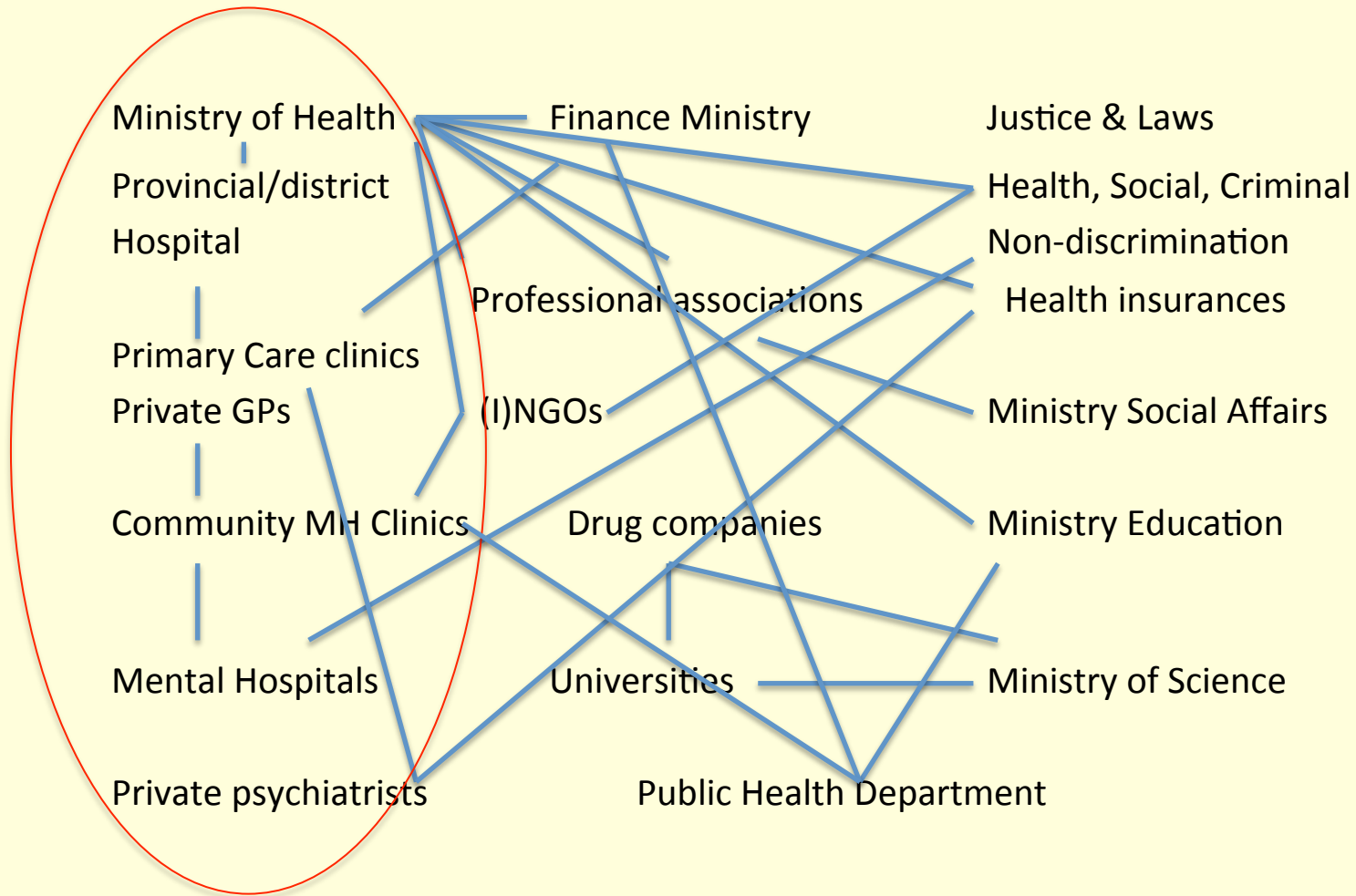
Complex systems after disaster

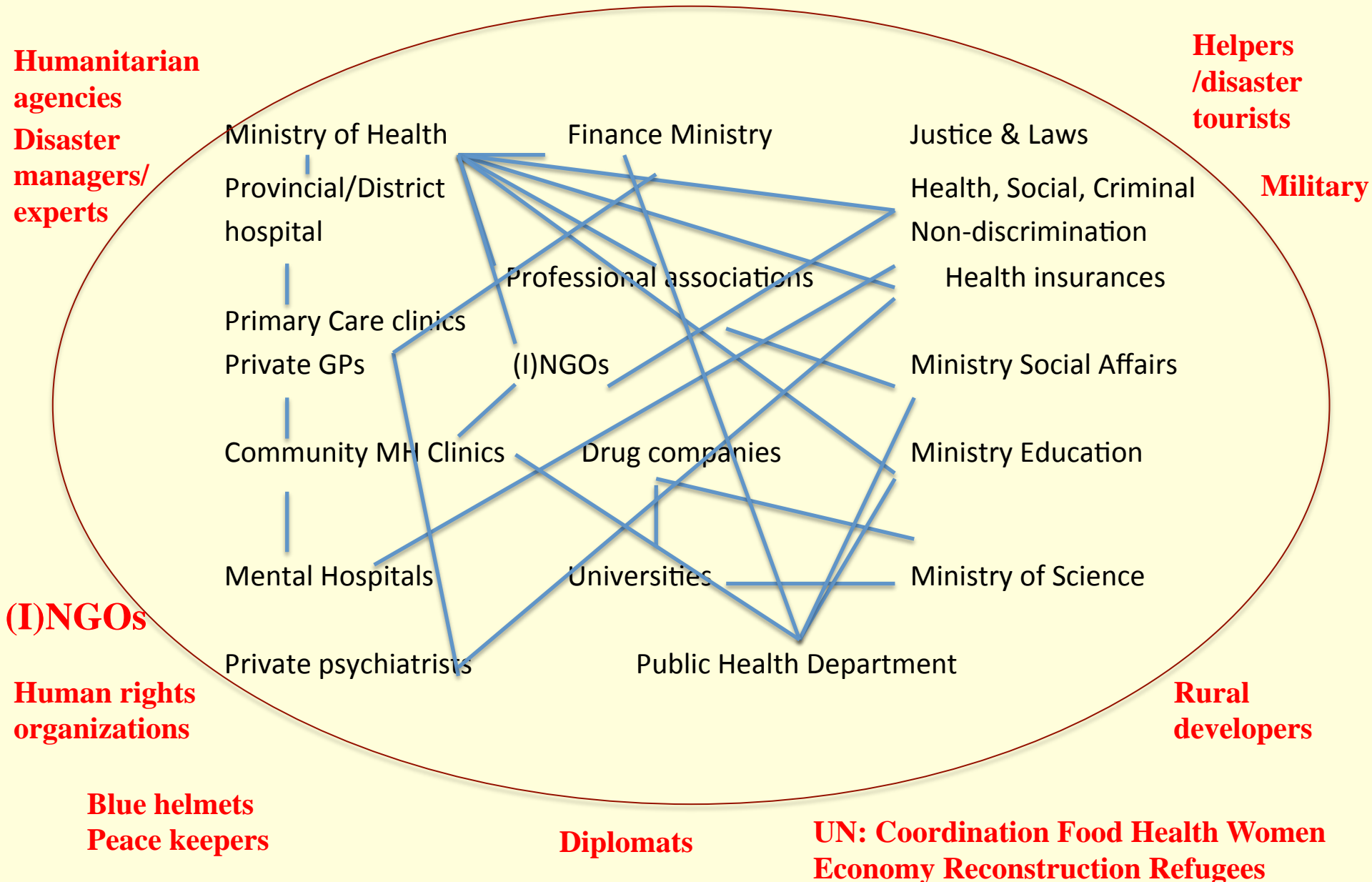# Challenge: mathematics

- Few (N)GO policy planners use models to calculate the capacity of the health system on a national, regional or district level
- Mathematics would enable us to distribute limited resources in proportion to demographics, socio-economics, national or social insurance, incidence etc
- Socio-ecological models are more advanced than the statistics we need to prove causal relations

Challenge: Mathematics (cont)

Consider the health system as a hub among sectors:

➢ economic sector (for income generation among the poor)
➢ social sector (as a safety net)
➢ educational sector (for children and youth)
➢ legal sector and women's organizations (for human rights violations and family violence)
➢ consumers (e.g., self-help groups)
➢ insurance and other companies

Address the most difficult problem of contemporary science: "how to deal with complex systems as wholes" Levins 1974

Outline

- Classification of violence
- Analysis conflicts in an interdisciplinary way
- A public health framework resulting in a preventative matrix
- Multi-sectoral, multi-modal and multi-level interventions involving the economy, governance, diplomacy, the military, human rights, agriculture, health, and education in an integrative and eclectic way
- Discussion

2005 1 16

A typology of violence (WHO, 2002)
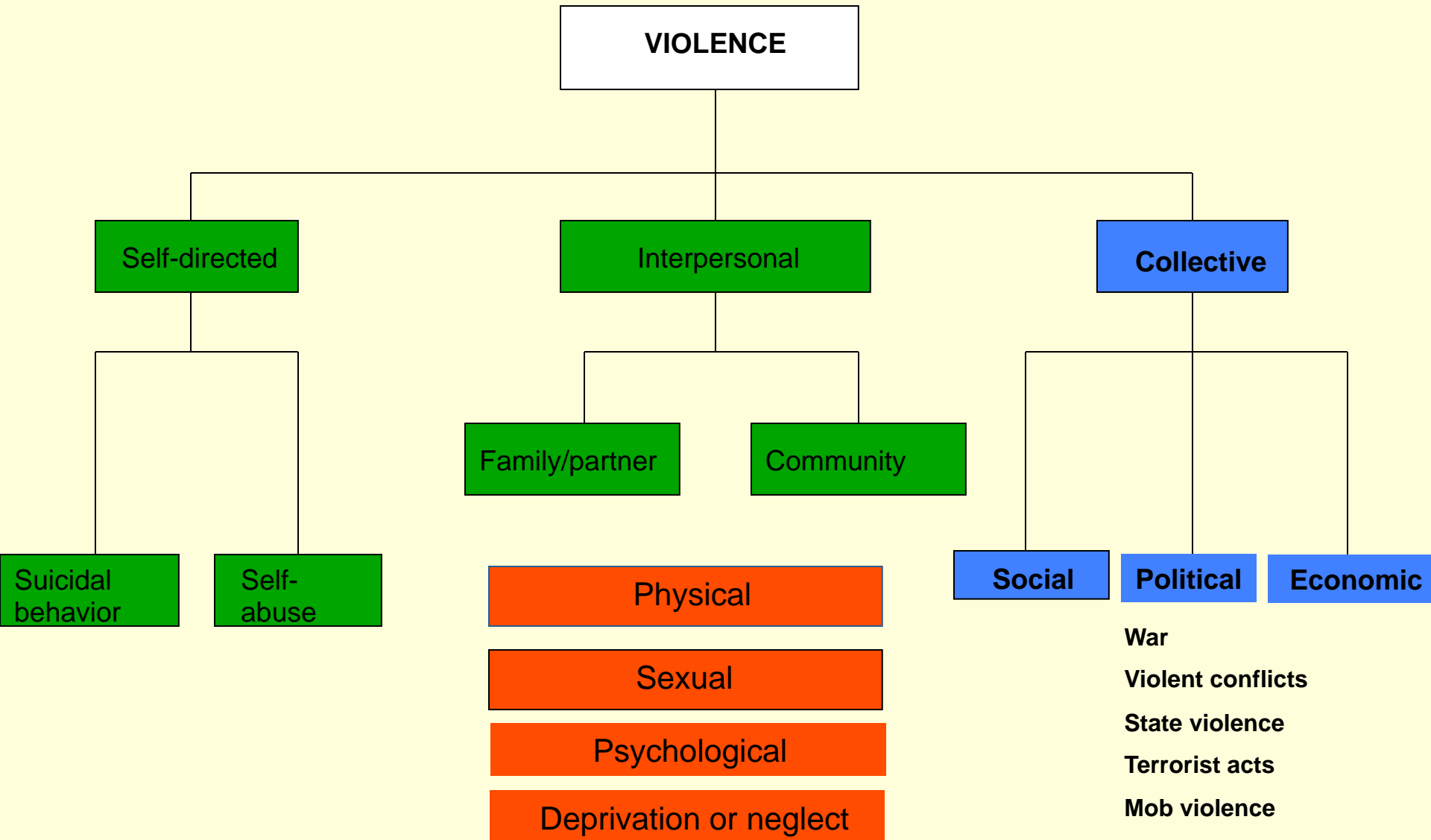
Prevention rests on a few generic public health principles

- uncovering knowledge about SRH/.. violence and reacting early to signs of trouble;
- using a comprehensive approach to alleviate risk factors that trigger or maintain violent conflict;
- address underlying root causes;
- implement, monitor, and evaluate interventions that appear promising

Advantage 3: multi disciplinary challenge
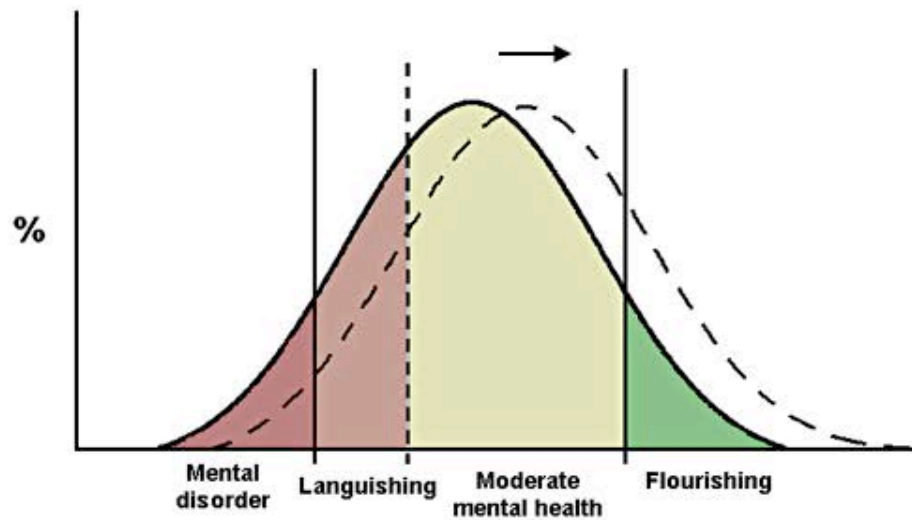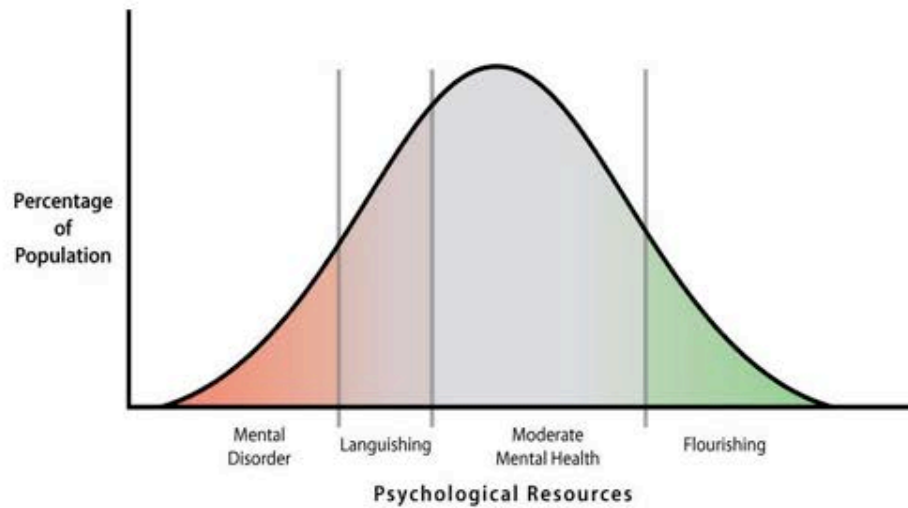
Shifting the mean of the mental health spectrum

PBEA Research: an attemp to develop preventive community interventions

Family level

School level

Adolescents

Community level

Parenting and ECD (2)

Children's exposure to violence at home/community

Transmission of violence in the family and community

Education for peacebuilding (Policy)

Child perspective on violence and strategies resilience

Inequality in schools (gender, dropout, adolescents
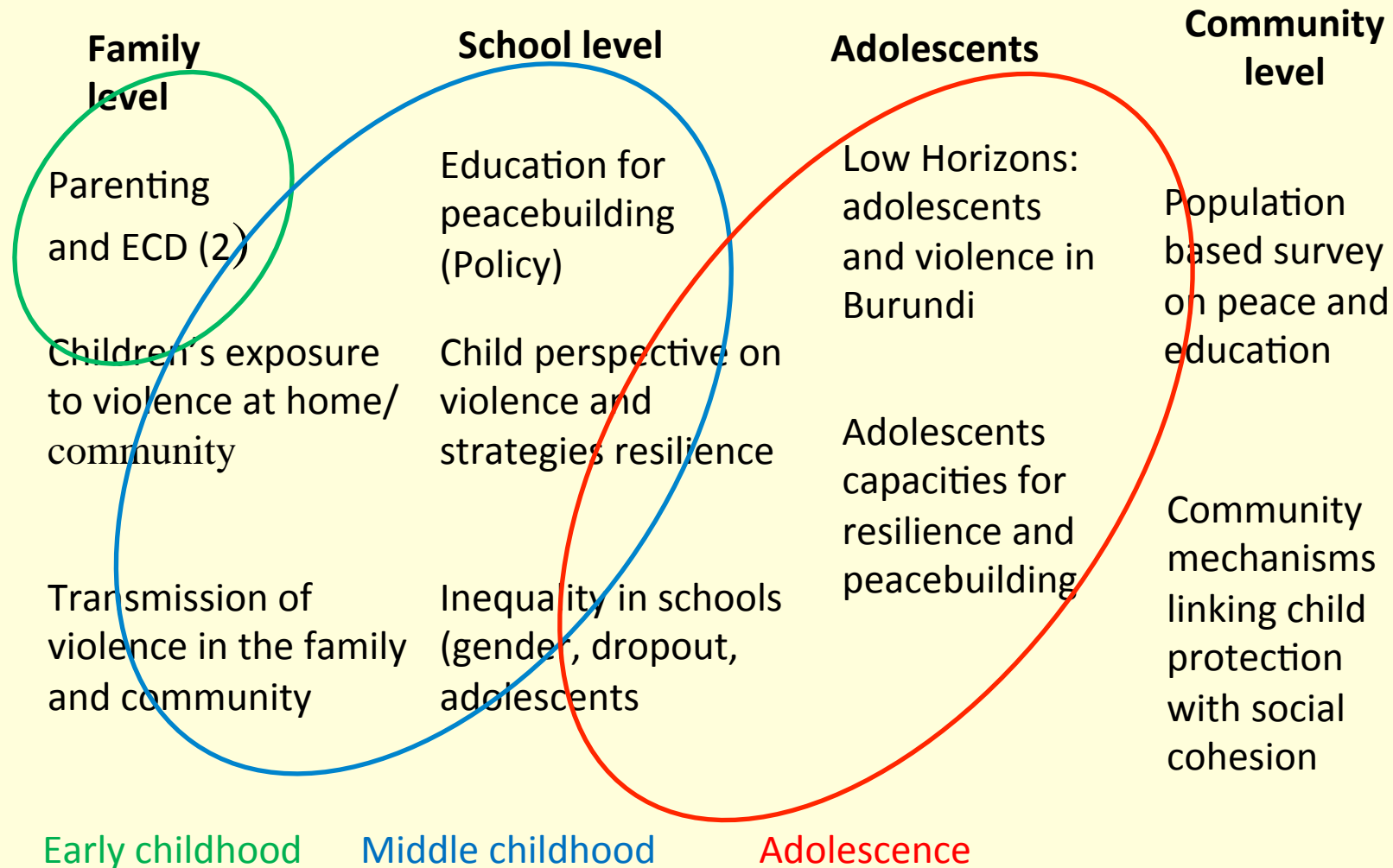
Low Horizons: adolescents and violence in Burundi

Adolescents capacities for resilience and peacebuilding

Population based survey on peace and education

Community mechanisms linking child protection with social cohesion

Early childhood   Middle childhood   Adolescence

The four-year Peacebuilding, Education and Advocacy Programme is an innovative, cross-sectoral programme focusing on education and peacebuilding

Figure 1 : Intergenerational transmission of childhood victimization experiences from parents to child, and revictimization of children in a sample from Burundi
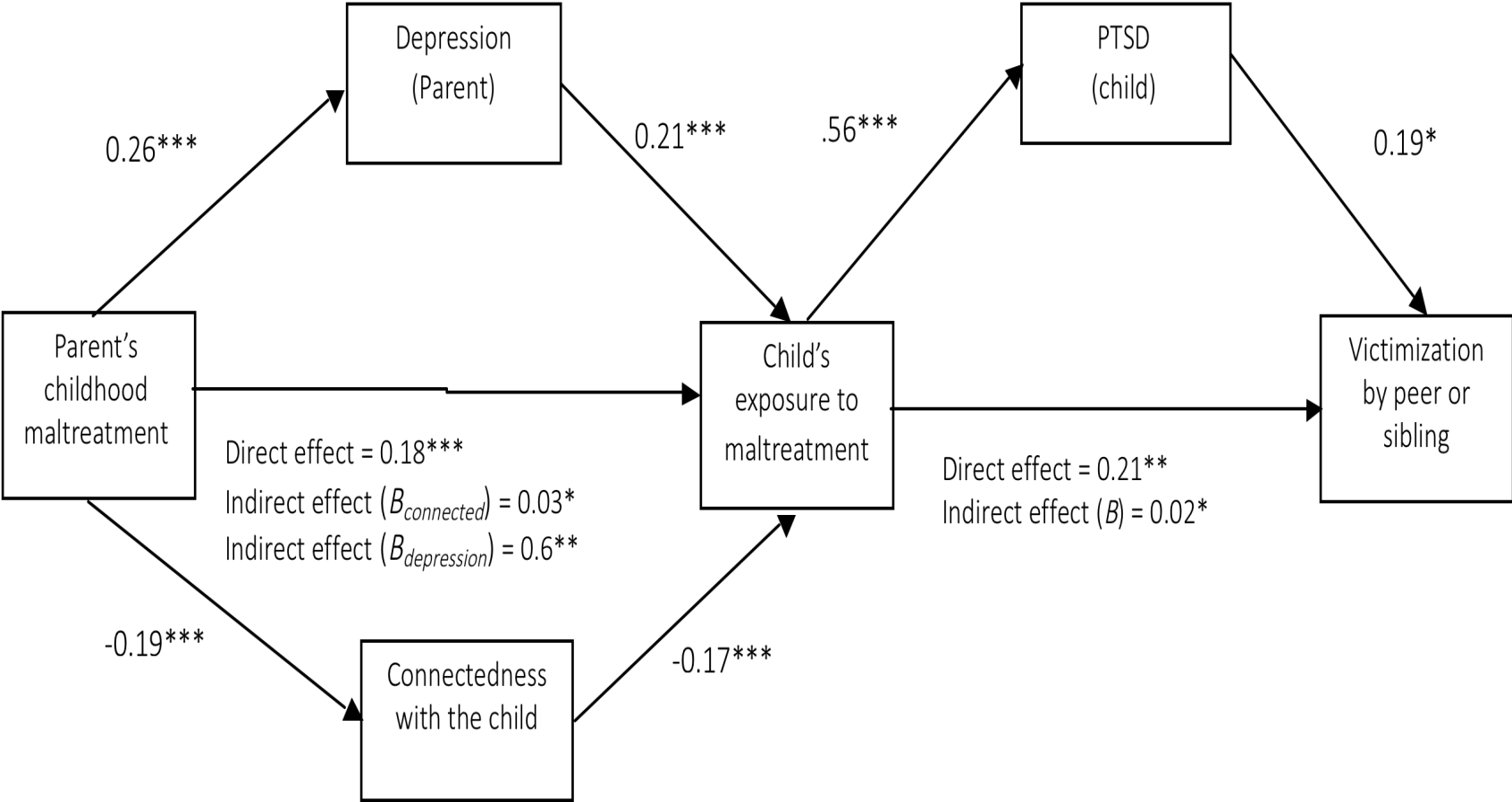
Note: All values presented are standardized coefficients (β) except for the indirect effect which is the unstandardized coefficient (B)

*p < 0.05.

**p < .01

***p < 0.001

Definition of evidence based prevention of collective violence

- The "conscientious and judicious use of current best evidence in making decisions about preventive interventions for communities, countries and regions to reduce the incidence of political and economic violence and to enable people to regain control, to improve their wellbeing, and live in peaceful coexistence".

Modern armed conflict

- In 2000, 1.6 million people died of violence. Nearly half of these deaths were suicides, onethird homicides, one-fifth were war related (WHO, 2002)

- The total number of armed conflicts rose from the 1950s until 1994 and then declined sharply until 2004. The end of the Cold War at least partly influenced the decline in armed conflict. The decline was largely due to the resolution of old conflicts rather than the prevention of new conflict; many dormant societal conflicts recurred after 2004

- In 2011, 37 armed conflicts were recorded globally, the majority in Africa (n = 15, 41%), Asia (n = 13, 35%), and the Middle East (n = 6, 16%)

- DALYs due to war injuries will increase between 2009 and 2019

Modern armed conflict (cont)

- 10% of the people who are killed are soldiers, 90% civilians and 50% of them children

- Reduced agricultural production and forced displacement of people → Increasing poverty, hunger and malnutrition

- A local conflict can spill over into national conflicts, neighbouring countries and a region

- The ratio of involvement in collective violence of LMIC countries versus HIC is ten to one

- 1997-2007 two million children have been killed in armed conflict, with 20 M displaced and 6 M million disabled (Unicef 2007)

- Around the world at any moment, an estimated 300,000 children under the age of 18 are involved in armed forces (Coalition to Stop the Use of Child Soldiers, 2008)

- In 2011, 45 M newly displaced due to conflict or persecution, with 29 M IDPs and 16 million refugees → 1 :12 to HIC, 1:5 to other LMIC, 75% as IDP in own country

Steps leading to collective violence

Mutual retaliation → 'malignant social process'
- **Aryan-Jew   Tutsi-Hutu   Israeli-Palestinian   Indian-Pakistani   Arab world-US Han Chinese versus others   Serbs–Bosnians**

This escalation due to 'us'-'them' and groupthink:

- illusion of invulnerability →
- excessive optimism and risk taking,
- a collective rationalizing of warnings that might temper a position,
- an unquestioned belief in a group's moral superiority,
- negative stereotypes of an out-group making negotiation unfeasible,

Steps leading to collective violence (cont)

- direct pressure on dissenters from group ideology, self-censorship,

- a shared illusion of unanimity, and

- self-appointed 'mind guards' to protect the group from adverse information so that dissent to violence is voiced at risk of death

Steps leading to collective violence (cont)

Societal self-concept based on superiority or self-doubt → war-generating motives

Germany after WWI   Khmer Rouge

Societal concept based on previously possessed territory

China-Tibet Israeli/Palestinians-Jerusalem Iraq-Kuwait   Argentina-Falklands

Or, part of the territory wants to split off

Biafra-Nigeria East-W Pakistan Eritrea-Ethiopia South-North Sudan Kurdistan

Projecting unacceptable aspects onto others

Turks-Armenians   Witches Africa   Renamo vs Frelimo

'Parasitism' Jews, Indians, Chinese

Risk factors/ indicators for violent conflicts & wars in fragile and failed states: relations circular and systemic

- **Political factors**

a lack of democratic processes

unequal access to power

- **Economic factors**

unequal income distribution or access to resources

control over natural resources

control over drug production or trading

- **Societal and community factors:**

inequality between groups

group fanaticism along ethnic, national or religious lines

availability of small arms and other weapons

health and nutrition

- **Demographic factors:**

rapid demographic change & high population density

Plus a context of:

- Chronic poverty, many live on less than $1 per day
- Multiple, everyday stressors plus shattered trust, loss of social supports & health

Somalia - Daniel Gerstle

More risk factors

↓
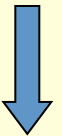
More likelihood Collective Violence

↓
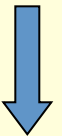
Poverty

conflict trap

Common predictors of armed conflicts and ill health

Predictor	Consequences armed conflict	Consequences health
• **Faulty governance/ Lack of democracy**	• Human rights violation • Criminalization of the state • Faulty leadership/Corruption	• Lack of social justice • Low priority of health • Low government spending • Lack of health policy
• **Inequality/inequity**	• Widening socio-economic inequalities/ struggle over access resources (oil, water)	• Impaired access to sanitation, health, education
• **Marginalization of groups**	• Political power exercised differentially applied according to ethnic or religious identity	• Differential access to services and differential outcomes for minorities, urban/rural residents/IDPs
• **Lack of intersectoral collaboration**	• Poor interaction international agencies, governments and ngo's; poor engagement in preventive, rehabilitative, and reconstructive interventions that may fuel cycles of violence	• Lack of interconnection (sub)national policies, inability to address crucial social determinants mostly located outside the health sector
• **Health and nutritional indicators per se**	• Important determinants of conflict onset	• Further deterioration of public health services and a vicious circle of reduced access to services and increased mortality and disability

• Daar et al 2007 Nature
•Collins Patel et al 2011 Nature

•WHO 2011 Social determinants public health
•De Jong 2010 SSM

Indicators of states: risk of collapse/conflict, examples & sequelae

Indicator	Signs	Example	Consequence
Inequality	Globalisation Privatization	former URRS Yugoslavia	Failed states & armed conflict
	Safety net ↓ Weapons ↑ Competition over resources Idem over access to drugs	Sub Saharan Africa Cambodia Indonesia Afghanistan Columbia Myanmar	Army and rebel forces fight over access to resources (gems, water, drugs)
Changing	Movement refugees IDPs	Darfur Lebanon	Environmental degradation due to population movement
	(Infant)mortality ↑	Angola Uganda Syria	Infectious disease Vaccination
Demography	Population density/ unemployment	Rwanda Burundi W Africa S Lanka	Resource depletion, Risk HIV Poor nutrition
	Dispute territory	Ethiopia Eritrea	Recruitment forces Destruction water sources

Indicators of states: risk of collapse/conflict, examples & sequelae

Indicator	Signs	Example	Consequence
Lack of democracy	Violation human rights	Bhutan Cambodia Iran Turkey	Torture Imprisonment Violence
	Criminalization of state	F Yugoslavia Guatemala Iraq	High military expenditures
	Faulty leaders, corruption	Mozambique S Leone Ethiopia	Use of violence to achieve aims
Political instability	Rapid changes	Sub-Saharan Africa Caucasus	Failed states
			Interethnic & religious strife
	Vengeance seeking (ethnic-religious)	Ukraine, Balkan, Syria	
Economic decline	Uneven development	West Africa Great Lakes Africa	Poverty Discontent Reduced expenditure health & education
	Unequal gains between groups or areas		Cycles of violence
Ethnic composition of ruling group different from population	Political and economic power exercised according to ethnic or religious identity Desecration ethnic/religious symbols	Rwanda, Burundi, Sri Lanka, Balkan, Caucasus, Nagorno-Karabakh/Azerbaijan, Afghanistan, Ukraine, Tibet	Inter-ethnic strife

Matrix showing the relation between Primary, Secondary, and Tertiary Prevention and (Inter)national, Community and Family/Individual Interventions

	SOCIETY-AT-LARGE or (INTER)NATIONAL	COMMUNITY	FAMILY & INDIVIDUAL
PRIMARY PREVENTION eliminate a conflict or problem before it can occur	*Universal interventions*	*Universal interventions*	*Universal interventions*
SECONDARY PREVENTION shorten the course of a conflict or problem through crisis intervention, case identification and referral (eg to UN)	*Selective interventions*	*Selective interventions*	*Selective interventions*
TERTIARY PREVENTION prevent a conflict from becoming chronic, to recur, and to contribute to rehabilitation and reconstruction	*Indicated interventions*	*Indicated interventions*	*Indicated interventions*

Universal, selective and indicated preventive interventions

- *Universal* preventive interventions are targeted to the community (of nations), the general public or a whole population group

- *Selective* preventive interventions are targeted to nations or states/groups whose risk of developing collective violence/disease is higher than average based on the risk factors

- *Indicated* preventive interventions are targeted to high-risk countries/groups (or (sub)regions) that show signs of collective violence/disease foreshadowing a serious armed or ethnic conflict/chronic disorder

	MACRO	EXO = COMMUNITY	MICRO = CLASS, FAMILY, CHURCH ETC
Universal interventions			
Selective interventions			
Indicated interventions			

	MACRO	EXO = COMMUNITY	MICRO = CLASS, FAMILY, CHURCH ETC
Universal interventions	*Universal preventive interventions* *Economy, governance and early warning* *Free media and press* *Resolve underlying root causes of violence* *(Inter)national laws* *Defining and condemning human rights violations* *Research into events and their consequences* *Setting standards for intervention and training* *Reconciliation institutions* *... resort* *Reinforcing peace initiatives and conflict resolution* *Arms and landmine control* *Prevent the reemergence of violence* *Transnational collaborative projects* *War tribunals and the persecution of perpetrators* *Peace-keeping forces* ***Indicated preventive interventions*** *Human rights advocacy*	**Universal and Selective preventive interventions** **Rural development and food production** **Community empowerment** **Decreasing dependency and learned helplessness** **Public health and education** **Peace education and conflict resolution in schools and the community** **Public (psycho-) education, community sensitization and awareness raising** **Security measures**	**Universal & Selective Interventions** **Include women and children in the distribution of economic growth** **Family reunion/family tracing** **Family/network building** **Improvement of physical aspects** **Resilience groups for children**
Selective interventions	**Humanitarian relief operations: shelter, food, water and sanitation** **(Co-occurring) Natural disasters: quality standards** **Voluntary repatriation** **Reparation and compensation**	**Conflict prevention & resolution** **Crisis intervention** **Vocational skills training**	**Recruitment of child soldiers** **Reparation and compensation for afflicted families** **Public health and disease control** **Mental health and psychosocial support (MHPSS)** **Crisis intervention**
Indicated interventions	*Peace-keeping and peace-enforcing troops.* *Peace agreements*	**Reconciliation and mediation skills between groups**	**Involve the family in rehabilitation and reconstruction**

UN

Government

NGO/CBO

Matrix showing the relation between Primary, Secondary, and Tertiary Prevention and (Inter)national, Community and Family/Individual Interventions

	SOCIETY-AT-LARGE or (INTER)NATIONAL	COMMUNITY	FAMILY & INDIVIDUAL
PRIMARY PREVENTION eliminate a conflict or problem before it can occur	*Universal preventive interventions* **Economy, governance and early warning** **Free media and press** **Resolve underlying root causes of violence** **(Inter)national laws** **Defining & condemning human rights violations** **Research into events and their consequences** **Setting standards for intervention and training** **Expanding security institutions** **Military's role of last resort** **Reinforcing peace initiatives & conflict resolution** **Arms and landmine control** **Prevent the reemergence of violence** **Transnational collaborative projects** **Selective preventive interventions** **Humanitarian operations** **War tribunals/persecution of perpetrators** **Peace-keeping forces** **Indicated preventive interventions** **Human rights advocacy**		

Economy, governance & early warning

- Achieving SDGs, pro-poor policies, prioritization agriculture and health will contribute to reducing the risk of armed conflict
- civil society and quality of policy-making decisions
- legal standards, regimes for controlling destructive weaponry, reduce poverty: economic growth *per se* does not prevent collective violence, but equitable access and economic opportunities do
- diversification to counter dependence on natural resources
- rebel financing and so called Commodity Tracking Systems
- governance goals: corruption, weak and unaccountable government, secessionist movements, financial and political transparency, cessation of illicit trade by armed groups, and better corporate practices
- multiparty political systems are more important then democracy per se because multiparty systems are more inclusive and stable and have a lower probability of civil war
- make more often use of Article 99 of the UN charter

Economy, governance & early warning

- early warning system: analysis of developing trends, political consultations to establish preventive engagement, pragmatic course of action to respond to the warning signs, and a flexible repertoire of political, economic and military measures.

- it implies preventive diplomacy, negotiation by mediators, a rapid reaction force guided by the UN charter, and economic measures such as sanctions, inducements and economic conditionality

Economy, governance & early warning

- economic pressure only effective when donor states harmonize policies. Some countries decrease their aid based on either harbouring or bordering a conflict, while others increase their aid

- e.g. Belgium, Canada, France, New Zealand, Portugal, Switzerland, Spain and the UK decrease aid, while the US, Russia, Denmark, Finland, Germany, Ireland, Japan, the Netherlands and Norway increase their aid

Resolve underlying causes: for structural prevention (i.e. ensure crises do not arise) address the root cause of violence

- *Structural* prevention or peace-building: ensure fundamental security, well-being and justice, temper discrimination and ethnic contradictions and rebuild societies

- I.e an accountable bureaucracy and a macroeconomic management structure that opens the country to the international community and to the global economy

- Address well-being, i.e. equal opportunity and access to basic necessities, such as health services, education; provide opportunities to earn a livelihood, stimulating poverty reduction and protecting the environment

- International laws to deal with the 4 main sources of insecurity worldwide, i.e. access to land and resources & access to nuclear & other weapons of mass destruction; confrontation between militaries; sources of internal violence (terrorism, organized crime, insurgencies, and repressive regimes)

(Inter)national laws

- To contain internal violence such as terrorism, organized crime, and active insurgencies, states need laws, an effective police authority, an accessible grievance redress system and a fair penal system.
- International laws should emphasize three areas:

  human rights

  humanitarian laws

  non-violent alternatives for dispute resolution.
- Humanitarian laws include the need to provide legal underpinning for UN field operations, should address the needs of vulnerable groups, the freedom of religion, and the right to preserve non-harmful cultural practices
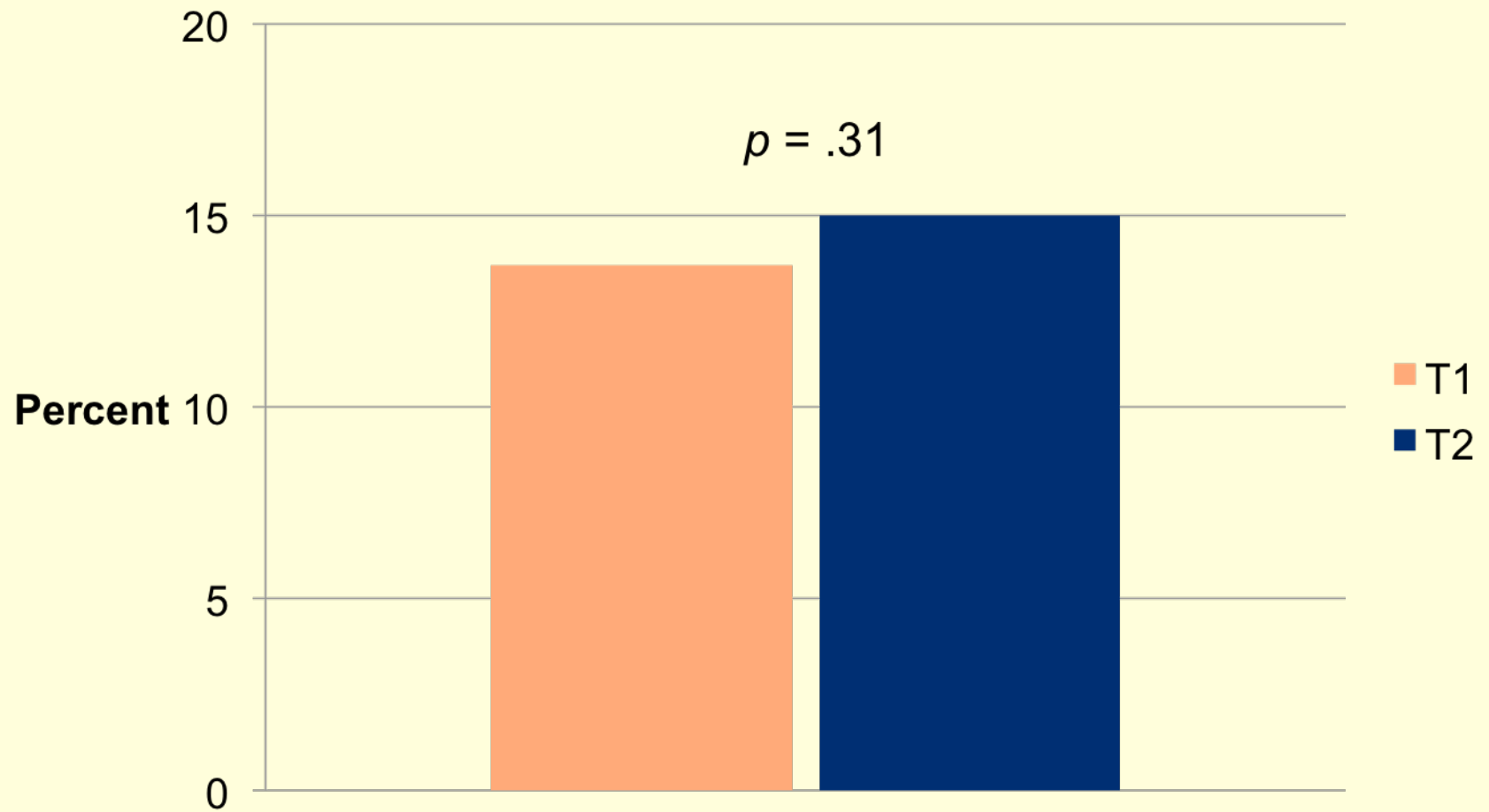
Matrix showing between Primary Prevention at the (Inter)national level

	SOCIETY-AT-LARGE or (INTER)NATIONAL	COMMU NITY	FAMILY & INDIVID UAL
PRIMARY PREVENTION eliminate a conflict or problem before it can occur	**Defining & condemning human rights violations** **Research into events and their consequences** **Setting standards for intervention and training** **Expanding security institutions** **Military's role of last resort** **Reinforce peace initiatives & conflict resolution** **Arms and landmine control** **Prevent the reemergence of violence** **Transnational collaborative projects** **Selective preventive interventions** **Humanitarian operations** **War tribunals/persecution of perpetrators** **Peace-keeping forces** **Indicated preventive interventions** **Human rights advocacy**		

Matrix showing between Primary Prevention at the (Inter)national level

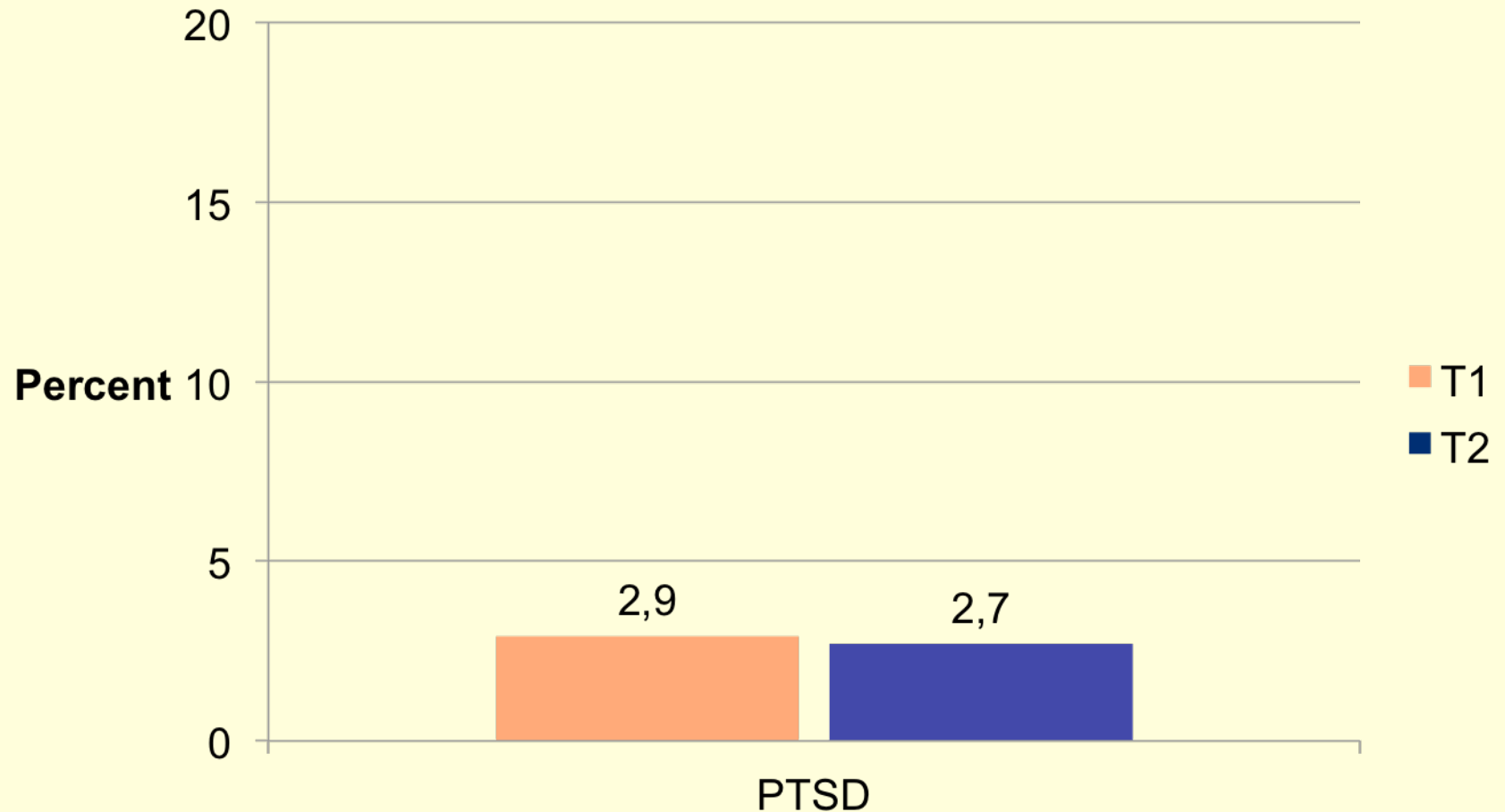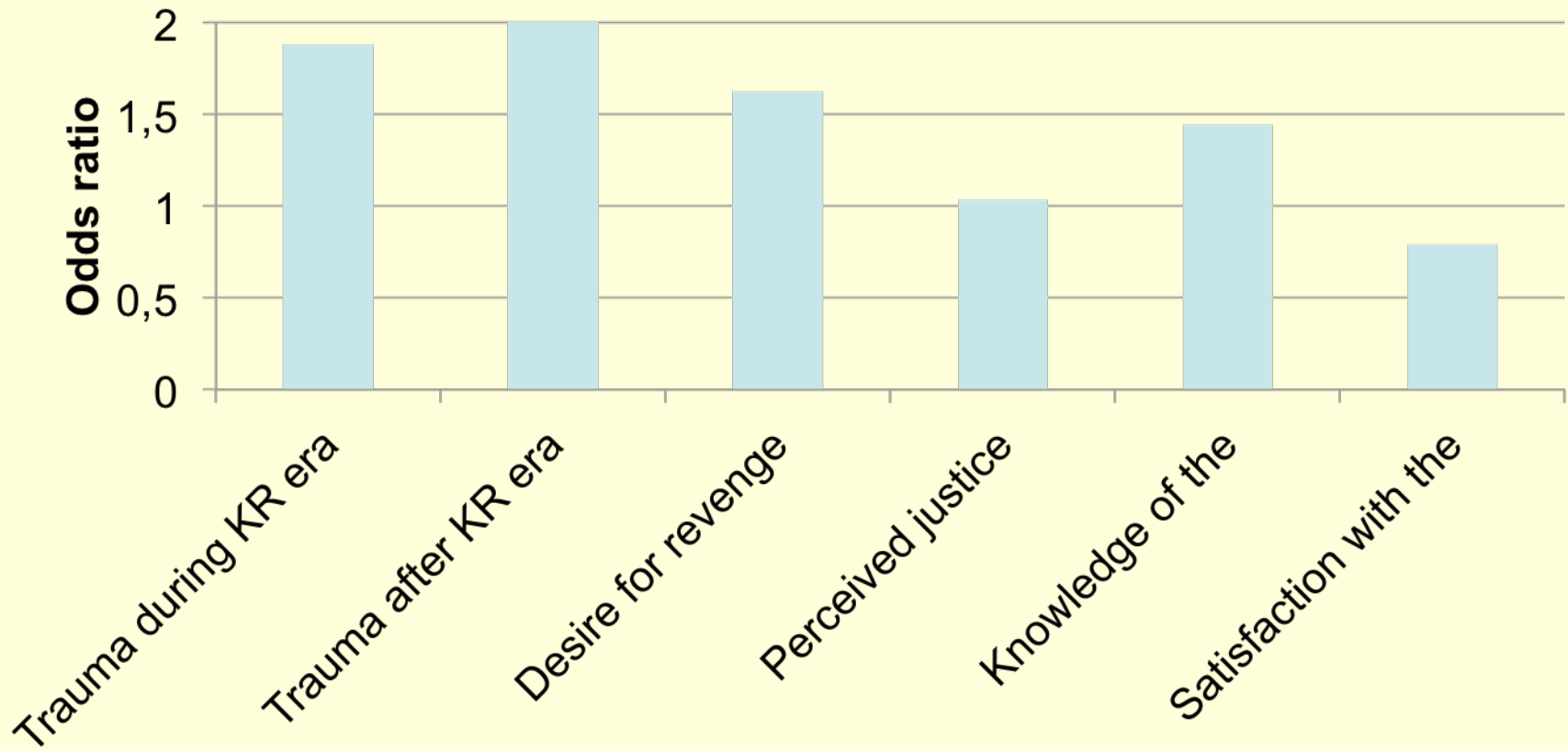|	SOCIETY-AT-LARGE or (INTER)NATIONAL	COMMU NITY	FAMILY & INDIVID UAL
PRIMARY PREVENTION eliminate a conflict or problem before it can occur	Defining & condemning human rights violations Research into events and their consequences Setting standards for intervention and training Expanding security institutions Military's role of last resort Reinforce peace initiatives & conflict resolution Arms and landmine control Prevent the reemergence of violence Transnational collaborative projects Selective preventive interventions Humanitarian operations War tribunals/persecution of perpetrators Peace-keeping forces Indicated preventive interventions Human rights advocacy		

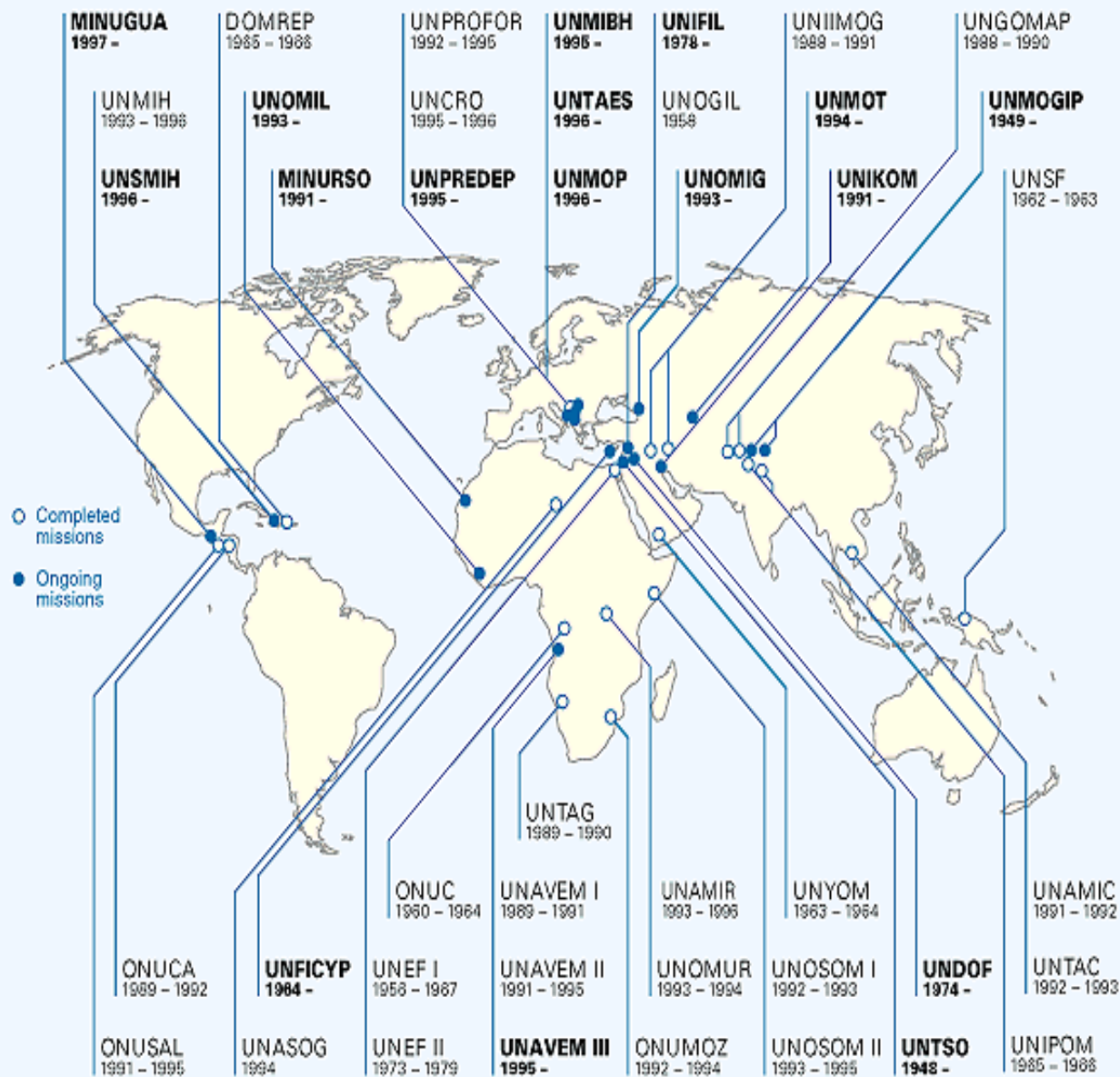# PTSD prevalence*

*Adjusted prevalence

KR-related PTSD prevalence

Predictors of PTSD

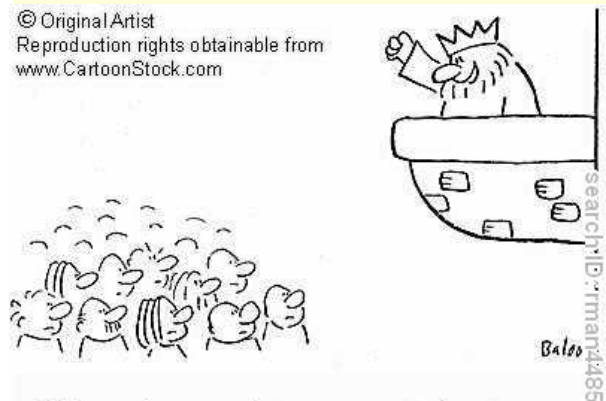# Matrix showing between Primary Prevention at the (Inter)national level

	SOCIETY-AT-LARGE or (INTER)NATIONAL	COMMU NITY	FAMILY & INDIVID UAL
PRIMARY PREVENTION eliminate a conflict or problem before it can occur	**Defining & condemning human rights violations** **Research into events and their consequences** **Setting standards for intervention and training** **Expanding security institutions** **Military's role of last resort** **Reinforce peace initiatives & conflict resolution** **Arms and landmine control** **Prevent the reemergence of violence** **Transnational collaborative projects** **Selective preventive interventions** **Humanitarian operations** **War tribunals/persecution of perpetrators** **Peace-keeping forces** **Indicated preventive interventions** **Human rights advocacy**		

COMPLETED AND ONGOING PEACE-KEEPING MISSIONS

MINUGUA 1997 –	DOMREP 1965 – 1966	UNPROFOR 1992 – 1995	**UNMIBH** 1995 –	**UNIFIL** 1978 –	UNIIMOG 1988 – 1991	UNGOMAP 1988 – 1990	
UNMIH 1993 – 1996	**UNOMIL** 1993 –	UNCRO 1995 – 1996	**UNTAES** 1996 –	UNOGIL 1958	**UNMOT** 1994 –	**UNMOGIP** 1949 –	
UNSMIH 1996 –	**MINURSO** 1991 –	**UNPREDEP** 1995 –	**UNMOP** 1996 –	**UNOMIG** 1993 –	**UNIKOM** 1991 –	UNSF 1962 – 1963	

○ Completed missions
● Ongoing missions

			UNTAG 1989 – 1990			
	ONUC 1960 – 1964	UNAVEM I 1989 – 1991	UNAMIR 1993 – 1996	UNYOM 1963 – 1964		UNAMIC 1991 – 1992
ONUCA 1989 – 1992	**UNFICYP** 1964 –	UNEF I 1956 – 1967	UNAVEM II 1991 – 1995	UNOMUR 1993 – 1994	UNOSOM I 1992 – 1993	**UNDOF** 1974 –	UNTAC 1992 – 1993
ONUSAL 1991 – 1995	UNASOG 1994	UNEF II 1973 – 1979	**UNAVEM III** 1995 –	ONUMOZ 1992 – 1994	UNOSOM II 1993 – 1995	**UNTSO** 1948 –	UNIPOM 1965 – 1966

Indian Troops waiting to board a Mi-8 equipped with rocket pods for an assault mission in J...

Baloo

"I'm pleased to report that our peace-keeping force has *slaughtered* the enemy!"

Matrix with Community Interventions

	SOCIETY-AT-LARGE or (INTER)NATIONAL	COMMUNITY	FAMILY & INDIVIDUAL
PRIMARY PREVENTION eliminate a conflict or problem before it can occur		**Rural development/food production** **Community empowerment: helping skills, dependency/learned helplessness (leaders, healers)** **Public health and education (1) equity policy (2) reconstruction (3) HR (4) supply materials (5) surveillance** **Peace education and conflict resolution in schools** **Public education (info aid&hr, rumors)** **Security measures (UXOs, bandits)**	
SECONDARY PREVENTION shorten the course of a conflict or problem		**Conflict prevention & resolution by local organizations** (1) monitor conflicts (2) convene adversarial parties; (3) undertake mediation (4) conflict resolution (eg gacaca (5) strengthen institutions for conflict resolution involving local and religious leaders **Crisis intervention /Vocational skills**	
TERTIARY PREVENTION prevent a conflict from becoming chronic, to recur, and		**Reconciliation & mediation skills** **groups**	

Matrix showing Primary Prevention at the Family/Individual level

	SOCIETY-AT-LARGE or (INTER)NATIONAL	COMMUNITY	FAMILY & INDIVIDUAL
PRIMARY PREVENTION eliminate a conflict or problem before it can occur			**Include women in the distribution of economic growth** **Family reunion/family tracing** **Family/network building** **Improvement of physical aspects** **Public health and education** **Schools stabilizing factor for children**
SECONDARY PREVENTION			

Matrix showing Secondary Prevention at the level of Family and Individual

	(INTER)NATIONAL	COMMUNITY	FAMILY & INDIVIDUAL
PRIMARY PREVENTION			
SECONDARY PREVENTION shorten the course of a conflict or problem			**Prevention of recruitment of child soldiers** **Ensure vocational skills training ex (child) soldiers** **Transition from a 'combat mode' to a 'civil mode' (using reconciliation and cleansing rituals)** **Rehabilitation services for injuries, psychosocial problems and control of aggression** **Reparation and compensation for afflicted families** **Public (mental) health and disease control** **Self-help groups for ex-combatants/child soldiers, widows, unaccompanied minors, survivors of GBV and torture, families/mothers with disabled children, the elderly, substance abuse** **Collaboration with healers and CAM** **Crisis intervention**

Social Context Survey

Psycho-Education
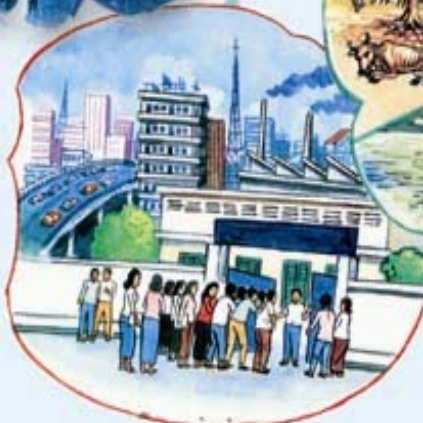
Counseling

Self-help groups

Trauma Interventions in War and Peace

Prevention, Practice, and Policy

Edited by

Bonnie L. Green,
Matthew J. Friedman,
Joop T.V.M. de Jong,
Susan D. Solomon,
Terence M. Keane,
John A. Fairbank,
Brigid Donelan,
and
Ellen Frey-Wouters

TRAUMA, WAR, AND VIOLENCE

Public Mental Health in Socio-Cultural Context

EDITED BY

JOOP DE JONG

Cost-benefits per month of psychosocial and mental health program Burundi (in US$) from a societal perspective
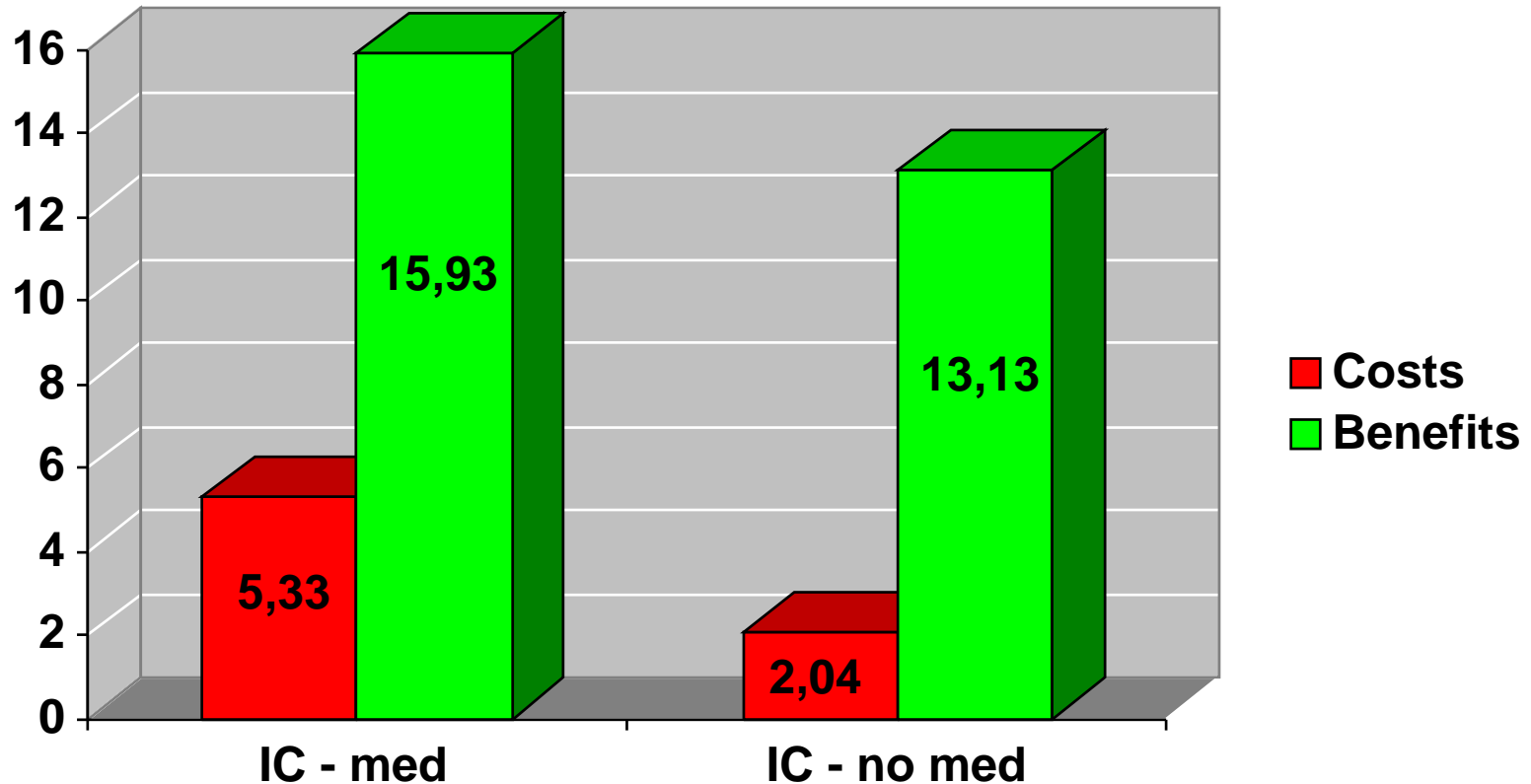
27 US$ to cover 100 inhabitants for 1 year

In sum: socio-ecological modeling

- Multi-sector, multi-modal and multi-level preventive principles involving the economy, governance, diplomacy, the military, human rights, agriculture, health, education and journalism, can be applied in an integrative and eclectic way

- Prevention moulded to the requirements of the specific historic, political-economic and socio-cultural context

- The model shows the complementarity between the UN and the (Non)Governmental actors.

Conclusion 2

- The model helps identify gaps in our knowledge
- Prevention of political violence involves communities or regions. Quasi-experimental studies and time-series designs offer an alternative to RCT to comprehend better the micro, meso and macro-levels of political, economic, socio-cultural and historical processes
- Further efforts are needed to develop preventive interventions and to improve their cost-effectiveness in varied settings
- This requires a process of repeated evaluation of preventive policies and their implementation

Probable Posttraumatic Stress Disorder and Disability in Cambodia

Associations With Perceived Justice, Desire for Revenge, and Attitudes Toward the Khmer Rouge Trials

Jeffrey Sonis, MD, MPH

James L. Gibson, PhD

Joop T. V. M. de Jong, MD, PhD

Nigel P. Field, PhD

Sokhom Hean, PhD

Ivan Komproe, PhD

B ETWEEN 1975 AND 1979, CAMbodia suffered genocide under the government of Democratic Kampuchea, known commonly as the Khmer Rouge (KR).[1,2] It is estimated that between 1 million and 2 million people (approximately 20% of the Cambodian population) died during that epoch, and millions of survivors were forced into slave labor under harsh conditions.[2]

Multiple studies suggest that the psychological effects of traumatic exposures during the KR regime have been profound, including a high prevalence of posttraumatic stress disorder (PTSD), somatic symptoms, and disability.[3-6] However, since most of the studies are based on samples of refugees drawn from refugee camps,[3] countries of refuge,[5] or treatment settings,[6] their applicability to the Cambodian populace as a whole is unknown.

Despite the massive scope of human rights violations under the KR, their leaders had never been held accountable.[7] However, a special tribunal sponsored jointly by the United Nations and the Kingdom of Cambodia (known formally as the "Extraordinary Chambers in the Courts of Cam-

Context Millions of Cambodians suffered profound trauma during the Khmer Rouge era (1975 to 1979). A joint United Nations–Cambodian tribunal (the "Khmer Rouge trials") was empanelled in 2006 to prosecute top Khmer Rouge leaders and began substantive hearings in March 2009.

Objectives To establish the prevalence of probable posttraumatic stress disorder (PTSD) among adult Cambodians and to assess correlates of PTSD symptoms and disability with perceived justice, desire for revenge, and knowledge of and attitudes toward the trials.

Design, Setting, and Participants A national probability sample of 1017 Cambodians was assembled using a multistage, stratified cluster design, including 813 adults older than 35 years who had been at least 3 years old during the Khmer Rouge era and 204 adults aged 18 to 35 years who had not been exposed to the Khmer Rouge era. Face-to-face interviews were conducted between December 2006 and August 2007.

Main Outcome Measures Prevalence of probable PTSD using the PTSD Checklist, Civilian version (cutoff score of 44), and mental and physical disability using the Medical Outcomes Study 12-item Short Form Health Survey.

Results The prevalence of current probable PTSD was 11.2% (95% confidence interval [CI], 8.6%-13.9%) overall and 7.9% (95% CI, 3.8%-12.0%) among the younger group and 14.2% (95% CI, 11.0%-17.3%) in the older group. Probable PTSD was significantly associated with mental disability (40.2% vs 7.9%; adjusted odds ratio [AOR], 7.80; 95% CI, 3.90-15.60) and physical disability (39.6% vs 20.1%; AOR, 2.60; 95% CI, 1.26-5.39). Although Cambodians were hopeful that the trials would promote justice, 87.2% (n=681) of those older than 35 years believed that the trials would create painful memories for them. In multivariate analysis, respondents with high levels of perceived justice for violations during the Khmer Rouge era were less likely to have probable PTSD than those with low levels (7.4% vs 12.7%; AOR, 0.54; 95% CI, 0.34-0.86). Respondents with high levels of desire for revenge were more likely to have probable PTSD than those with low levels (12.0% vs 7.2%), but the difference was not statistically significant in the multivariate analysis (AOR, 1.76; 95% CI, 0.99-3.11).

Conclusions Probable PTSD is common and associated with disability in Cambodia. Although Cambodians had positive attitudes toward the trials, most were concerned that the trials would bring back painful memories. Now that the trials have begun, longitudinal research is needed to determine the impact of the trials on Cambodians' mental health.

JAMA. 2009;302(5):527-536   www.jama.com

Author Affiliations: University of North Carolina at Chapel Hill (Dr Sonis); Washington University in St Louis, Missouri (Dr Gibson); Vrije Universiteit Medical Center, Amsterdam, the Netherlands (Dr de Jong); Pacific Graduate School of Psychology, Palo Alto, California (Dr Field); Center for Advanced Study, Phnom Penh, Cambodia (Dr Hean); HealthNet TPO, Amsterdam (Dr Komproe); Stellenbosch University, Stellenbosch, South Africa (Dr Gibson); and Boston University School of Medicine, Boston, Massachusetts (Dr de Jong).
Corresponding Author: Jeffrey Sonis, MD, MPH, Department of Social Medicine, School of Medicine, CB No. 7240, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7240 (jsonis@med.unc.edu).

ELSEVIER

SOCIAL
SCIENCE
&
MEDICINE

A public health framework to translate risk factors related to political violence and war into multi-level preventive interventions

Joop T.V.M. De Jong [a,b,*]

[a] VU University Medical Center, VU University, Amsterdam, Netherlands
[b] Department of Psychiatry, Boston University School of Medicine, Boston, MA, USA

ARTICLE INFO

ABSTRACT

Political violence, armed conflicts and human rights violations are produced by a variety of political, economic and socio-cultural factors. Conflicts can be analyzed with an interdisciplinary approach to obtain a global understanding of the relative contribution of risk and protective factors. A public health framework was designed to address these risk factors and protective factors. The framework resulted in a matrix that combined primary, secondary and tertiary interventions with their implementation on the levels of the society-at-large, the community, and the family and individual. Subsequently, the risk and protective factors were translated into multi-sectoral, multi-modal and multi-level preventive interventions involving the economy, governance, diplomacy, the military, human rights, agriculture, health and education. Then the interventions were slotted in their appropriate place in the matrix.

The interventions can be applied in an integrative form by international agencies, governments and non-governmental organizations, and molded to meet the requirements of the historic, political-economic and socio-cultural context. The framework maps the complementary fit among the different actors while engaging themselves in preventive, rehabilitative and reconstructive interventions. The framework shows how the economic, diplomatic, political, criminal justice, human rights, military, health and rural development sectors can collaborate to promote peace or prevent the aggravation or continuation of violence. A deeper understanding of the association between risk and protective factors and the developmental pathways of generic, country-specific and culture-specific factors leading to political violence is needed.

© 2009 Published by Elsevier Ltd

Introduction

Population growth, technological advancement, economic interdependence and ecological vulnerability, combined with the availability of weapons and the contagion of hatred and incitement to violence, make the task of finding ways to prevent disputes from turning massively violent quite an urgent one. Armed conflicts have

condition to one of increased vulnerability, then to political violence and finally to full-blown civil conflict or war. Preventive strategies from the realm of public health can restore the balance between risk and protective factors. Prevention rests on a few generic public health principles where the word "disease" can be substituted by the word "violence": uncovering knowledge about violence and reacting early to signs of trouble; using a compre-

- **Thank you for your attention**