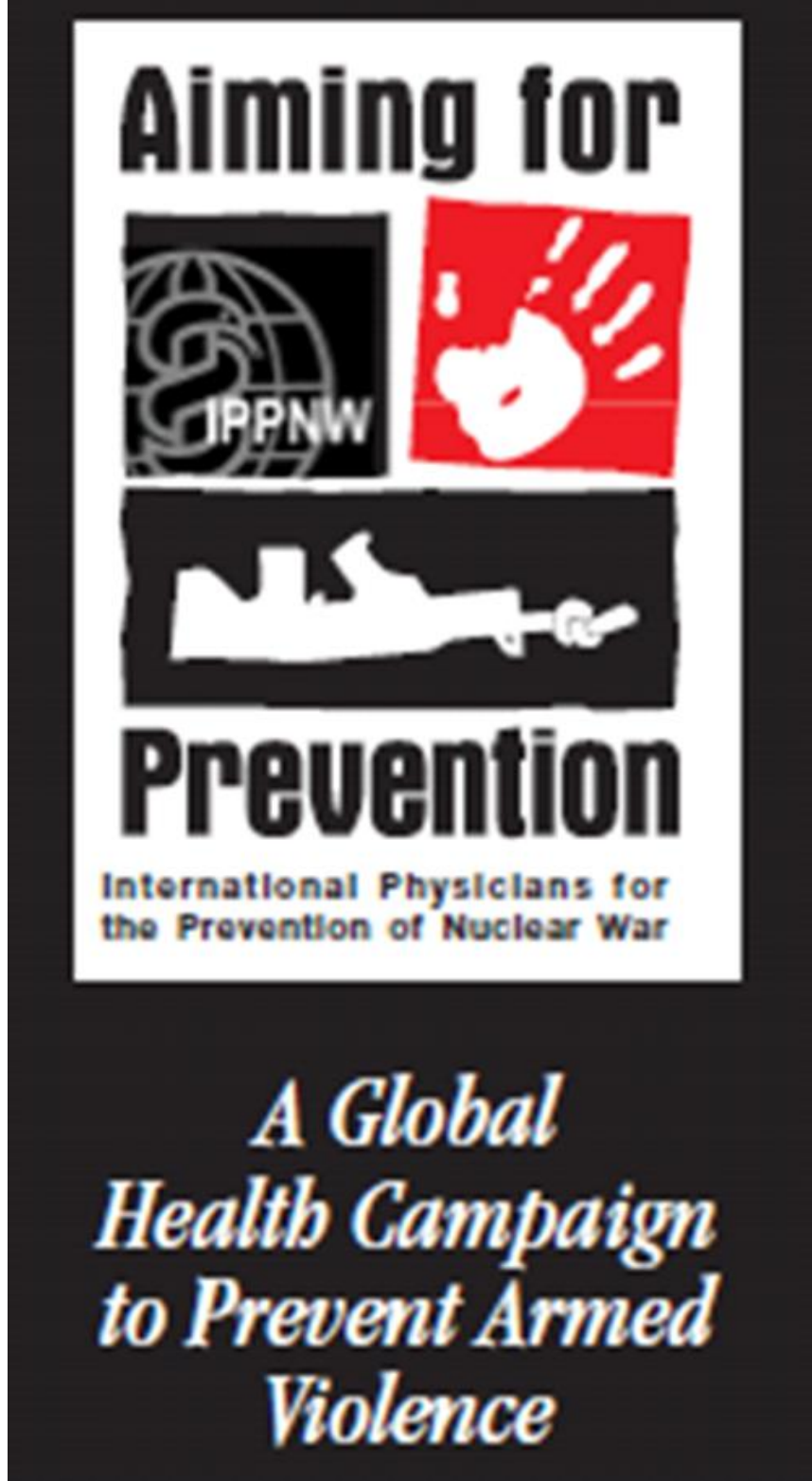# Assessment of the quality of medical data on armed injuries provided to the Liberian Armed Violence Observatory

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small arms survey

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Aiming for Prevention — International Physicians for the Prevention of Nuclear War — A Global Health Campaign to Prevent Armed Violence

Introduction

Liberia is in a transitional state between conflict and non-conflict with high levels of on-going violence however uniform collection of data on violence across multiple sectors has been lacking. The Liberian Armed Violence Observatory (LAVO) was formed in March 2011 as an independent body that gathers, analyses and reports on armed violence data in Liberia. The information they collect is vital to measuring Liberia's progress in meeting the Oslo Commitments on armed violence to make measurable reductions in armed violence by 2015. The Liberian Ministry of Health and Social Welfare supplies LAVO with ED data from three hospitals in Liberia, but most data collected by LAVO are non-hospital sources such as police data. The quality of hospital data provided is unknown, as is the contribution of hospital data above and beyond what is currently collected by LAVO from other sources.

Objective

To assess the quality of data provided to LAVO on injuries caused by weapons from the largest hospital in Monrovia (Redemption Hospital).

Methods

A retrospective audit was conducted of 12 months of hospital records (July 2011- June 2012) from Redemption hospital to quantify the proportion of injuries presenting to ED that were intentional and the proportion that were caused by weapons and any other data available on these injuries to compare with data received by LAVO. Support was then sought to introduce a data collection tool to use in hospitals to better capture intentional injuries seen in the ED. The tool was specifically designed for LAVO by IPPNW as part of the Aiming for Prevention programme).(1-3)
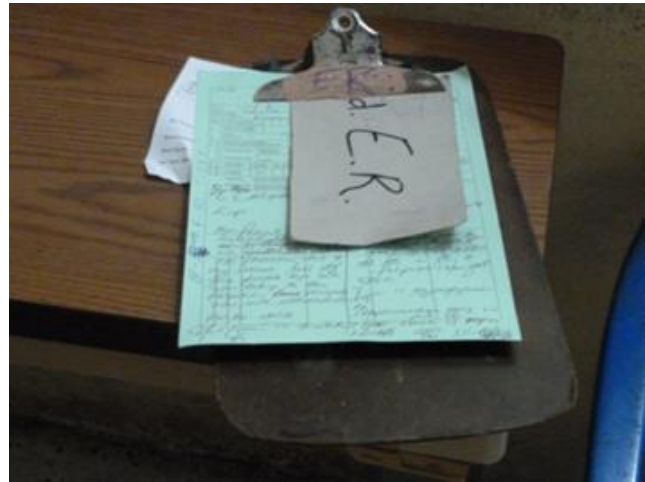
Results

Our audit found 172 intentional injuries of which 44% had unknown weapon involvement (Table 1). LAVO found 100 injuries involving weapons as they do not collect data on cases where the weapon involvement is unknown. It is likely that a proportion of these cases do involve weapons and thus better data collection is required to avoid LAVO missing these. The 12% of intentional injuries with no weapon involvement are not being captured by any organisation. While minimal information is available on the perpetrator from LAVO hospital data, we found perpetrator information was recorded in 58% of patient notes and that 21% of perpetrators are relatives or intimate partners. Furthermore we found a *lower* percentage of youth (<18) victims of intentional injury. In addition, assaults perpetrated in conjunction with other crime are underreported.

Conclusions

LAVO is likely to be missing injuries caused by weapons due to weapon involvement often not being documented in the medical records. IPPNW has designed a tool (Figures 2 and 3) to enhance violence injury data collection in the Emergency Department (ED). It is very simple to use and essentially creates a space on the patient's ED file to document information routinely obtained during the history of presenting complaint. The tool does not delay patient treatment nor negatively impact the functioning of the ED. It aims to decrease errors associated with medical jargon, missed data, and diagnostic variability. The intent is that the quantity and quality of data collected on intentional injuries is improved, regularly collated and provided to LAVO.

References
1. Aiming for Prevention Programme International Physicians for the Prevention of Nuclear War.http://ippnw.org/afp.html.
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Table 1: Comparison of intentional injury in Liberia as assessed via hospital data collected by the Liberian Armed Violence Observatory (LAVO) vs. an audit of the same hospital (Redemption Hospital) from July 2011-June 2012

	LAVO		Audit	
	N	%	N	%
Total intentional injuries	100	100	172	100
Males	68	68	110	64
Females	32	32	62	36
Youth <18	18	18	18	10
Diagnosis				
Laceration/abrasion	58	58	106	62
Gunshot wound	2	2	4	2
Other puncture wound (e.g. bite)	0	0	10	6
Other (e.g. fracture, hematoma)	6	6	10	6
Trauma unspecified	32	32	42	24
Other crime in progress				
Yes	4	4	16	9
No/Unknown	96	96	156	91
Weapon type				
Firearm	4	4	4	2
Bladed weapon	16	16	14	8
Glass bottle	12	12	12	6
Other object (rocks, sticks, etc)	62	62	26	15
Unidentified object	6	6	22	13
No weapon	N/A	N/A	20	12
Unknown if weapon was used	N/A	N/A	74	44
Perpetrator				
Male intimate partner	0	0	16	9
Female intimate partner	0	0	10	6
Male relative	0	0	8	5
Female relative	2	2	2	1
Friend	0	0	20	12
Thief, other criminal	2	2	14	8
Police	0	0	4	2
Other male	2	2	24	14
Other female	0	0	2	1
Unknown	94	94	72	42

Figure 1: Sample form from patient files, Redemption Hospital, Monrovia

Figure 2: The tool covers a space in the form that is not completed in injuries

Figure 3: Aiming for Prevention Intentional Injury Data Collection Tool. Developed by Dr. Andrew Winnington (IPPNW) for LAVO.