



Constructing pre-trial detention indicators for African contexts

Problems and proposals

Jean Redpath
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The aim of CSPRI is to improve the human rights of people deprived of their liberty through research-based advocacy and collaborative efforts with civil society structures. The key areas that CSPRI examines are developing and strengthening the capacity of civil society and civilian institutions related to corrections; promoting improved prison governance; promoting the greater use of non-custodial sentencing as a mechanism for reducing overcrowding in prisons; and reducing the rate of recidivism through improved reintegration programmes. CSPRI supports these objectives by undertaking independent critical research; raising awareness of decision makers and the public; disseminating information and capacity building.

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Abstract

This discussion paper arose from the conundrum faced by a paralegal organisation working in an African country in demonstrating both that pre-trial detention is a problem in that country, and that their work has an impact on the problem. The indicators currently employed by states and organisations relating to pre-trial detention have a range of shortcomings in the African context. These shortcomings need to be understood in interpreting indicator values. Indicators should be adjusted, and additional indicators should be incorporated into data collection practice in order to provide a more complete and accurate picture of pre-trial detention in Africa. This paper is intended as a starting point for a broader discussion of the pitfalls and possibilities for the development of indicators in relation to pre-trial detention in Africa.

Introduction

Any country with a criminal justice system which requires a trial process to determine guilt, and which permits a person to be detained under defined circumstances before trial, is likely to hold some pre-trial detainees. The negative consequences of such pre-trial detention, in particular on health, have been documented and collated elsewhere.¹ In some countries, there is excessive or inappropriate use of pre-trial detention such that rights of detainees are affected.² It is the stated purpose of range of civil society organisations, including those providing access to legal advice and assistance to detainees, to reduce the extent to which pre-trial detention is applied excessively, inappropriately, or at all.

The provision of paralegal services in prisons in Africa has been pioneered by Malawian organisations. The Paralegal Advisory Service Institute (PASI), formerly a project of Penal Reform International, has taken a leading role in this regard. Through a memorandum of understanding with the Malawi Prison Service, PASI is permitted access to all prisons in Malawi, and more recently, some places of detention in police stations. PASI paralegals are persons with basic training in criminal procedure, with emphasis on the release of those detained pre-trial. PASI conducts “legal aid clinics” which are group workshops with detainees to assist detainees in understanding criminal law and procedure and in applying it to their own situation. In addition, PASI provides direct one-on-one legal advice and assistance. Such assistance is often practical in nature and frequently involves tracing witnesses or sureties or parents of young offenders, or alerting magistrates to situations where children are being held or persons are being held without a valid warrant, and leads directly to releases of detainees.

After a decade of operation PASI was required to submit a proposal for further funding of their paralegal work. In support of that proposal, the donor required PASI to submit both a “problem statement” and to develop an “impact indicator” support of their proposal. This occasioned some difficulty for PASI. Although PASI records regularly the number of legal aid “clinics” they conduct as well as the number of people directly assisted, and the number of people whose actual release was facilitated, this was felt to be insufficient to demonstrate PASI’s impact on the “problem” of pre-trial detention. Furthermore, the donor required an indicator which would show that pre-trial detention in Malawi was indeed a “problem” which required an intervention such as provided by PASI.

This too posed a problem for PASI. It has tended to be assumed in pre-trial detention work that countries whose prison population comprises, on an ongoing basis, a high percentage of persons who have not been convicted (usually more than 40%) have a “problem” in that the high ratio suggests the country is (1) inappropriately holding people pre-trial, who are ultimately never convicted (2) slow at converting arrests and detention into convictions, leading to lengthy periods of pre-trial detention. Consequently a high ratio of pre-trial detainees to sentenced prisoners is generally accepted as indicating a “problem”.

¹ See, inter alia, J. Csete, *Consequences of injustice: pre-trial detention and health*, International Journal of Prisoner Health, Vol 6, no 2 (2010)

² See, inter alia, Schönteich M. The scale and consequences of pre-trial detention around the world. Justice Initiatives, 2008, spring:11

But in Malawi the ratio of pre-trial detainees has dropped dramatically since PASI began its work – to only 16%. The challenge for PASI in defining the “problem” in relation to pre-trial detention is that, partly as a result of their ongoing work facilitating the release of pre-trial detainees, this indicator does not reflect a situation of apparent crisis. Furthermore, the impact of PASI’s work is unlikely to be reflected in the ratio indicator going forward. This is because their work, having been carried out for more than a decade, now tends to operate to maintain the ratio.

This discussion paper considers some of the commonly used indicators in relation to pre-trial detention by civil society organisations in Africa, what they reflect, how they may be interpreted, and their inter-relatedness; and introduces some candidate indicators which may be more appropriate to the African context. Actual examples of data from Malawi and other countries are used to illustrate these points.

1. Indicator #1: Pre-trial ratio

Probably the most common indicator used in relation to pre-trial detention is the percentage or ratio of all prisoners held pre-trial (colloquially this is often referred to as the pre-trial detention “rate”, which may be confused with indicator #2 below). The arithmetic of the indicator requires the number of pre-trial detainees in prison to be divided by total number of prisoners (convicted prisoners plus the number of pre-trial detainees). Usually this is done on a snapshot basis (in other words, as at a particular date). What the indicator measures, is the extent to which imprisonment is of people who have not yet been convicted. As outlined in the introduction, a high proportion is usually interpreted in a negative light, as it suggests a high proportion of prison space being occupied by persons who have not yet been found guilty in a court of law.

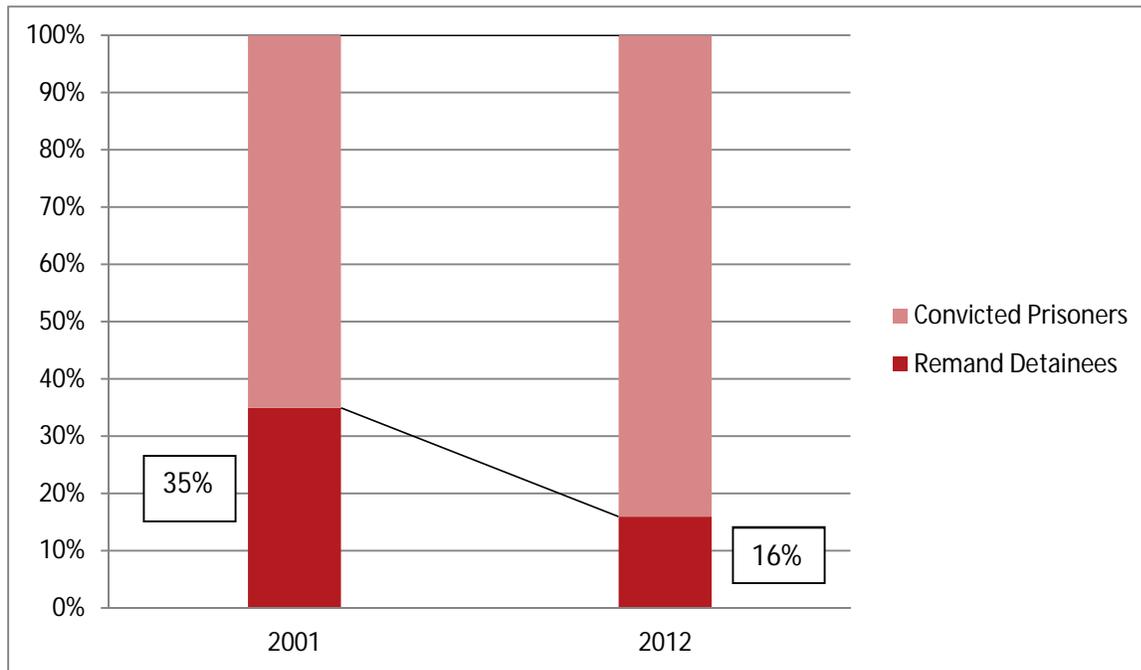
In 2001 it was the case that 35% of Malawi’s prison population comprised pre-trial detainees. It is usually the case that such ratios change slowly with time, a reflection of the fact that justice systems tend to exhibit a great deal of inertia – they carry on in the same direction and at the same pace unless considerable effort is applied. Yet by 2012, Malawi’s prison population comprised only 16% of persons held pre-trial. This is a low proportion or ration of pre-trial detention. Indeed the ratio now fails to suggest there is a pre-trial detention “problem” in Malawi.

1.1 Interpreting the low ratio of pre-trial detention in Malawi

To some extent this low rate may be attributed to the prior and ongoing work of PASI in facilitating the release of persons held on less serious offences, as well as those held as a result of practical impediments such as inability to contact sureties. The fact that this low rate persists is also partly due to the ongoing work of PASI.

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Figure 1: Ratio of remand³ prisoners to convicted prisoners, Malawi, 2001 and 2012⁴



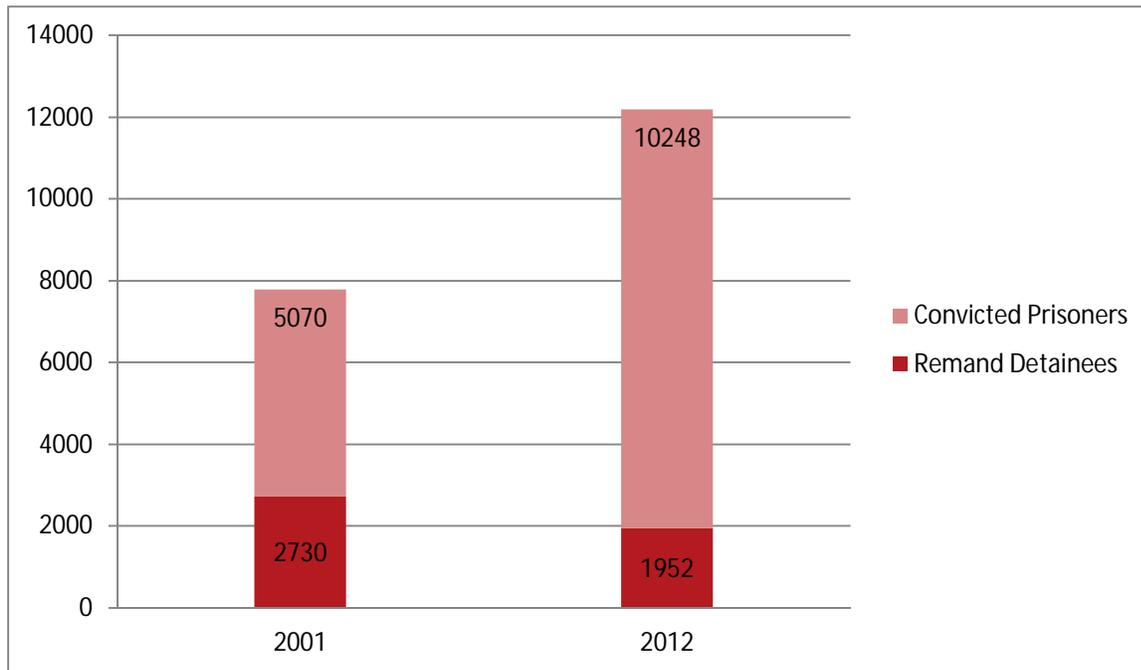
In looking at the data underlying the ratio, however, some may argue that instead what has occurred is that pre-trial detention has been converted into conviction and sentence: over 11 years, the number of sentenced prisoners has doubled. If the number of sentenced prisoners had remained the same as in 2001, the rate of pre-trial detention would have shown a more modest improvement, to 28%.

This suggests that a proportion of the “exits” from pre-trial detention have been conversions of pre-trial detention to convictions, rather than releases from pre-trial detention. Obviously the data cannot provide any insight as to the quality of those convictions.

³ The word “remand” is used in relation to the pre-trial phase in Malawi.

⁴ World Prison Brief figures, <http://www.prisonstudies.org/world-prison-brief>.

Figure 2: Remand versus convicted prisoners, Malawi, 2001 and 2012⁵



Clearly convictions and releases both play a role in the trends, yet the problem for PASI and other pre-trial advocates is that Malawi now has a 16% pre-trial detention ratio. If the ratio is employed as the main or only indicator that there is a pre-trial detention problem or a problem with the rule of law or criminal justice processes in Malawi, it is unconvincing. A ratio of 16 is approaching the ratio of pre-trial detention of advanced democracies such as the United Kingdom, which had a 13% not-sentenced (9% not convicted) ratio of pre-trial detention in March 2013.⁶ Yet intuitively and from experience on the ground we know that pre-trial detention is a problem in Malawi. Why is this not reflected in the ratio of pre-trial detention?

1.2 Detainees are not only held in prisons

The pre-trial detention ratio indicator fails to reflect the true extent of pre-trial detention in Malawi partly because it does not take into account detainees held in police cells. While persons held in police cells might legitimately be excluded from a ratio indicator in countries where detention in police cells is normally only for the statutory limit of 24 or 48 hours (and followed by appearance in court, and then either release or transfer to prison), in Malawi some police cells were and are holding people for extended time periods well beyond 48 hours.

This occurs when remand warrants are signed at court in the absence of the accused, and the accused is only transported to prison at a later stage. Indeed it appears now to be the norm in

⁵ World Prison Brief figures, <http://www.prisonstudies.org/world-prison-brief>

⁶ World Prison Brief figures, <http://www.prisonstudies.org/world-prison-brief>

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Malawi that the initial remand warrant is signed in the absence of accused. Prolonged detention in police cells may also occur in places where there is no prison facility to house remand prisoners.

The table below shows data collected from registers at police stations which record the entry and exit of persons detained in police stations in some locations in Malawi. Malawi does have a 48-hour rule before which it is expected a detainee would either be released or transferred to prison, The table clearly shows that, 3 out of 5 locations had a median of 2 days, while 2 had a median longer than 2 days. Thus the duration of detention was in more than half of cases 2 days or longer, with the maximum time period exceeding a year in one (non-prison) location.

Table 1: Time periods in police detention in Malawi⁷

Sample information: Police Stations						Time period in police detention (days)					
Police Station	Pop.	Years of data collected	Average yearly turnover	Measure	Obs.in sample	Mean	Min	1/4	Median	3/4	Max
Blantyre	6612	5	1333	Detention to release	83	14	1	1	2	5	371
Kasungu	10462	2	5231	Detention to release	46	6	1	1	2	5	122
Mzimba	2411	3	804	Detention to release	101	3	1	1	2	3	31
Mzuzu	10113	3	3371	Detention to release	30	41	28	30	31	61	243
Thyolo	6612	5	1322	Detention to release	71	24	1	2	3	30	183

Indeed in Mzuzu, which did not (at the time the sample was collected) have a nearby prison, the minimum period spent in police cells was 28 days. Had these Mzuzu detainees been housed in prison, back-of-the-envelope calculations using the average days in detention (subtracting 2 days for the 48 hour period of pre-trial detention), and the average turnover in a single year, show that Mzuzu detainees would have raised the pre-trial detention number in Malawi on any particular day in a year by 543 people, thus increasing the ratio of pre-trial detention on any one day to 20% – up 4% from 16%.⁸

As there are 42 police stations and police posts in Malawi, the true number held in pre-trial detention beyond the 48 hour period may be significantly higher. Indeed, if we apply the number calculated for the four police stations other than Mzuzu (which is an outlier), and assume the trend is the same for all 30 police stations with detention cells, the number in pre-trial detention almost doubles, with an additional 1733 people, bringing the total 3685 – so that the ratio of pre-trial detention goes up to 26%.

⁷ This table was compiled using data collected for the OSISA Pre-trial detention audit, published as Muntingh L & Redpath J (eds) (2011) *An audit of pre-trial detention and case flow management in Malawi* (Johannesburg: OSISA)

⁸ Additional detainees on any particular day at each location = (Mean time in detention * turnover)/365 days

Prisons, while exceptionally good at counting the number of people they hold, cannot be expected to count people held by other institutions. Persons held in police detention beyond 48 hours are thus not counted in prison data, on which the pre-trial detention ratio is usually based. Consequently, in countries such as Malawi the ratio of pre-trial detention as calculated from prison figures is misleading.

This may also be the case in many other countries across Africa suffering similar resource constraints that result in pre-trial detainees being held in places other than prisons.⁹

1.3 Dynamic populations require moving averages

A further problem with the pre-trial detention ratio indicator is that it tends to be calculated using figures on a “snapshot basis” – that is, as at a specific date. But detainee populations are dynamic. The number in prison (and the number pre-trial) as at a particular date can be highly influenced on a day-to-day basis by factors such as “camp courts” (special court sessions held in prisons). If the numbers are counted immediately before or after a camp court (at which releases may be expected), the ratio may look worse or better respectively than the situation really is over the long term. Other factors which may affect a snapshot calculation include presidential pardons, seasonal court recesses, or crime surges – or ad hoc excessive use of detention by the state for other reasons. For example, excessive use of short-term pre-trial detention may occur during politically sensitive times, such as during pre-election phases, or during periods of civil unrest, or after police sweep operations or crackdowns.

The upshot of this is calculating this ratio as at a particular date (a “snapshot” figure) may under- or over-state the true trend. In reality the number of people held in prisons changes daily, as does the number held pre-trial, due to admissions, releases and convictions. Consequently it is preferable to use an average, by for example, taking the average of a number of snapshot figures over time period to obtain an average for the year. To illustrate trends on an ongoing basis, a “moving average” rather than a snapshot figure is used to illustrate dynamic populations.

A moving average is obtained by averaging a series of snapshot values, with the values chosen for the average moving forward by one time unit at each increment of a time unit. Typically a 6-month moving average is used for populations like these. The arithmetic then becomes that the moving average number of pre-trial detainees (calculated from as many “snapshots” as possible) is divided by the moving average of the number of prisoners, to obtain a “moving ratio”. Consider the table below, and observe how over the period October to January, the snapshot figure changes from 15% to 21%, yet the moving average moves less erratically around 16%-17%.

⁹ Sometimes such detention occurs without a court mandating continued detention, and thus constitutes illegal detention. Indeed it is perhaps a question whether those held illegally – that is, without a court having mandated their further detention – should be counted as “pre-trial” detainees. The answer would depend on what is being demonstrated by the indicator.

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Table 2: Snapshot versus moving averages illustrated for Malawi¹⁰

Date	Remand	Convicts	Ratio (snapshot)	Ratio (6 month moving average)
28 April 2012	2200	10300	18%	
28 May 2012	2100	10350	17%	
28 June 2012	2000	10200	16%	
28 July 2012	1950	10250	16%	
28 August 2012	1900	10100	16%	
28 September 2012	1850	10000	16%	16%
28 October 2012	1800	10050	15%	16%
28 November 2012	2100	10050	17%	16%
28 December 2012	2300	10050	19%	16%
28 January 2013	2600	10050	21%	17%
28 February 2013	2400	10200	19%	18%
28 March 2013	2300	10250	18%	18%
28 April 2013	2200	10300	18%	19%
28 May 2013	2100	10350	17%	19%
28 June 2013	2000	10200	16%	18%
28 July 2013	1950	10250	16%	17%
28 August 2013	1900	10100	16%	17%

Again, it would be preferable to include the figures of people held in police cells in calculating the average, or where this not possible, to state explicitly that the ratio does not include these detainees and why this is significant.

¹⁰ These are demonstration figures which have not been directly measured.

2. Indicator #2: Rate of pre-trial detention per 100 000 population

A further indicator frequently employed to illustrate the state of pre-trial detention in a country is the rate of pre-trial detention expressed as the number of persons held in prison pre-trial per 100 000 persons in the country. The arithmetic of the rate of pre-trial detention requires the number of pre-trial detainees to be divided by the population of the country and multiplied by 100 000. What the indicator measures, is the proportion of people in the country being held in pre-trial detention. Malawi's last Census was in 2008, and Malawi's National Statistical Office estimated the population of the country in 2012 to be approximately 15.9 million. Consequently by 2012 the rate of pre-trial detention in Malawi was only 12 per 100 000 people, a figure which is low absolutely and comparatively. Comparatively speaking, Malawi does not appear to have an excessive rate of pre-trial detention.

2.1 Take account of detainees held elsewhere

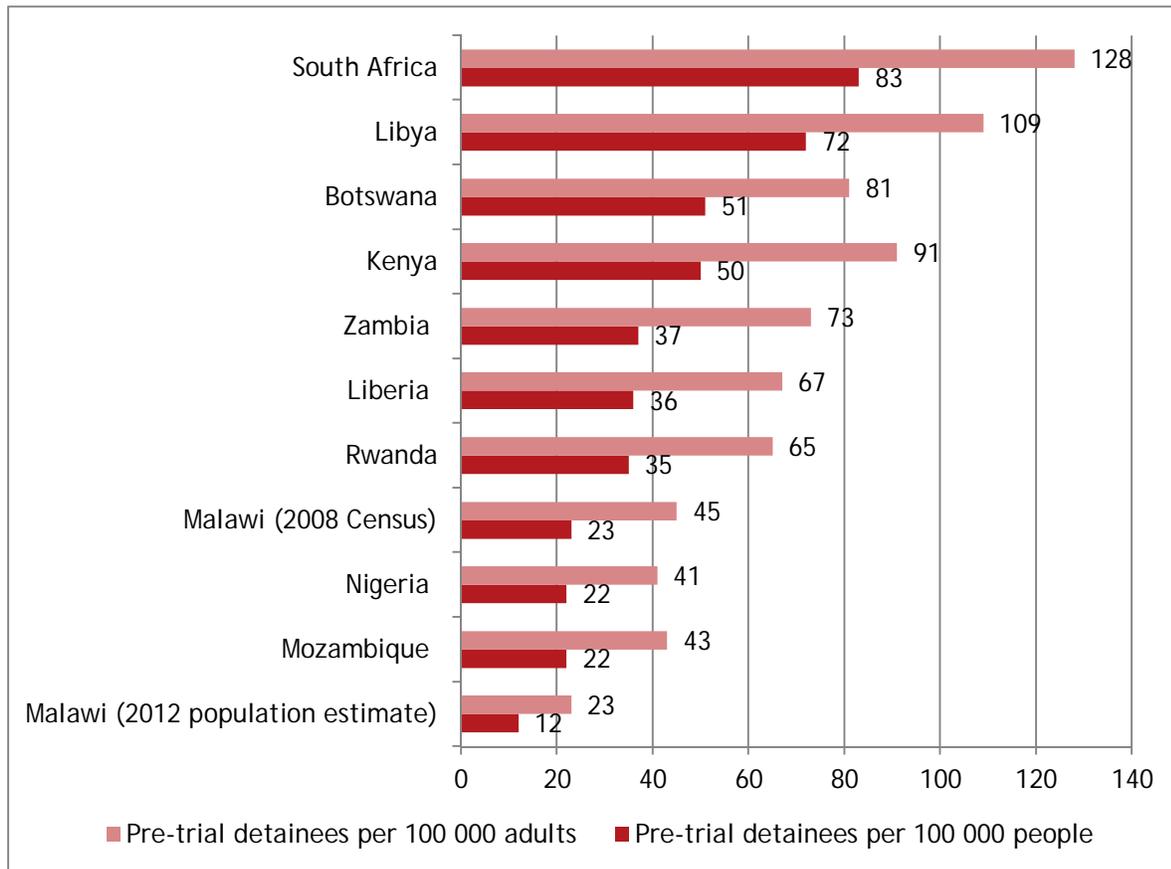
But this indicator suffers from the same flaw as the ratio indicator, in that it does not incorporate those persons held in police cells in excess of the statutory 48 hours. If we calculate the rate using the 3 685 possible detainees calculated using police cell estimates above, the rate of pre-trial detention rises to 23 per 100 000, putting Malawi putatively "worse" off than Mozambique and Nigeria. That could change were we to find a similar issue in these countries, and incorporate police cell data accordingly.

2.2 Use adult population where appropriate

The rate of pre-trial detention per 100 000 is usually a useful indicator for comparing countries, but less so when comparing countries at different stages of the demographic transition. In particular, African countries tend to have populations which are relatively younger. For example, while 65% of South Africa's population is 15-64, only 51% of Malawi's is aged 15-64. This is significant in the pre-trial context as children are much less likely to be held in pre-trial detention¹¹ and when they are so held, are frequently counted or housed separately and not included in the adult figures. Given that the detention of adults is being measured, a more legitimate indicator might be in relation to the adult population, not the total population.

¹¹ International law states imprisonment should be a measure of last resort.

Figure 3: Pre-trial detainees per 100 000 people and per 100 000 adults, recent figures, selected countries¹²



Observe in figure 3 above how Kenya changes ranking with Botswana when the adult population is used to calculate the pre-trial detention rate. Consequently the adult population should be considered when comparing countries at different demographic stages. Of course, for countries where child detention is relatively common and children are not held separately, this may not be appropriate.

2.3 Use per 100 000 only over long periods

Measuring change within a country should probably be done with raw numbers rather than rates per 100 000. This is because population changes year-on-year are extremely difficult to estimate accurately. Incorrect population estimates are likely to overshadow small changes in pre-trial detention. For example, if we used the Census population figure for Malawi for 2008 of 13.1 million, rather than the estimate for 2012, our rate jumps from 12 to 15 per 100 000. When using the raw number for change over shorter time periods, moving averages are again advisable.

¹² World Bank population data available <http://data.worldbank.org/indicator/SP.POP.1564.TO.ZS> used with World Prison Brief figures, <http://www.prisonstudies.org/world-prison-brief>.

2.4 Use accurate population estimates and moving averages

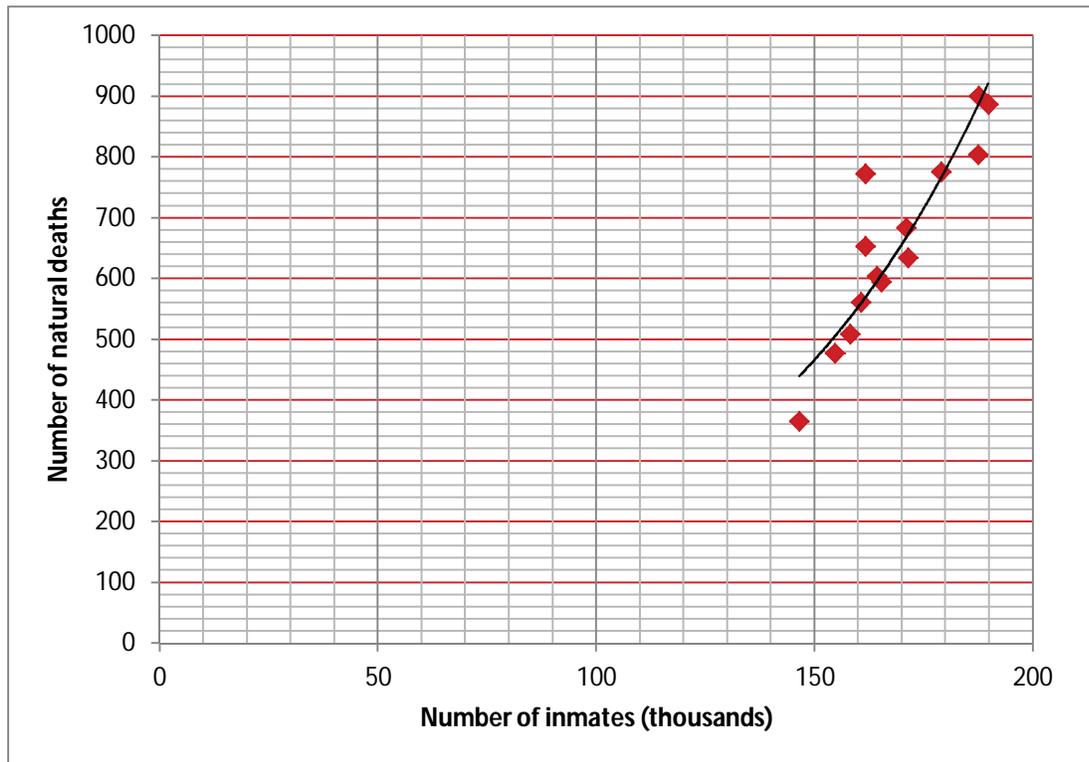
The usefulness of the indicator is highly dependent on accurate population estimates. This may be difficult to ensure in countries where patterns of displacement or migration due to conflict or drought or other extremes may result in drastic population fluctuations. In some countries, credible data is yet to be created. Consequently care should be taken to ensure the credibility of the population data employed. Because of the issues outlined 1.3 above, in use moving averages of the number detained in pre-trial detention.

3. Indicator #3: Pre-trial occupancy rate

Absent from the indicator discussion thus far are any indicators which speak to the conditions of detention. The most obvious and easy-to-measure indicator of conditions of detention is the occupancy rate. The arithmetic of the indicator requires the number imprisoned to be divided by the number the prison or facility is supposed to hold. To determine the figure for a whole country, the total number imprisoned is divided by the total number of prison and facility spaces available. This is an indicator of conditions of detention both intuitively and demonstrably, because higher occupancy levels worsen health and lead to deaths. This is apparent from analysis of data in South Africa, which demonstrates that increasing overcrowding increases the rate of death in prisons. The relationship between deaths and inmate population appears in the figure below.

Note that in the figure, all the inmate population values point to overcrowding, as South Africa's prisons are designed to hold only 118 000 inmates. The analysis shows that the relationship between occupation of prisons and inmate deaths is exponential rather than linear – at least where the values are in the range of over 100% occupancy. The rate of natural deaths against total inmate population shows an increase in the rate of natural death with increasing inmate population. For a total average inmate population for the year of fewer than 150 000, some 360 natural deaths for every 100 000 inmates were reported in a year in South African prisons. However, at a total average population of closer to 190 000, some 900 reported natural deaths for every 100 000 inmates occurred. In other words the rate of natural death increased 250% with a 25% increase in total population.

Figure 4: The relationship between inmate population and rate of natural death, South Africa¹³



This illustrates the serious consequences of inmate population size exceeding approved occupancy, even in a relatively well-resourced country such as South Africa. Again these figures should be calculated using moving averages of the population rather than snapshot figures.

3.1 Measuring pre-trial occupancy rate

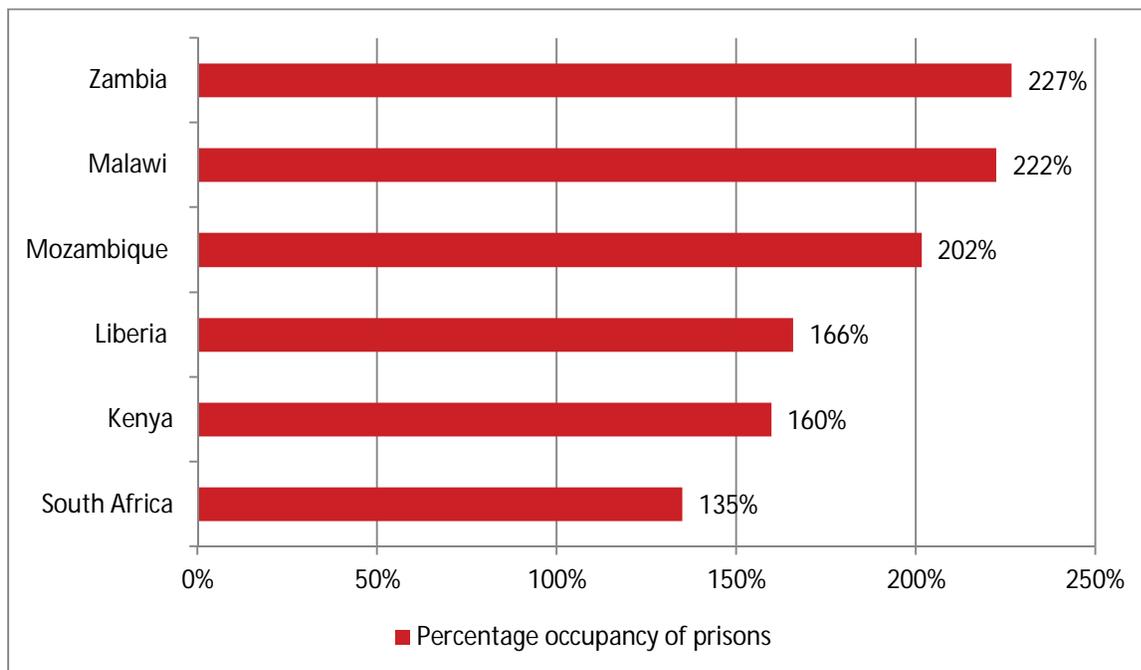
In Africa remand prisoners are seldom separated from convicted prisoners, so occupancy figures for prisons as a whole are likely to be reflective of occupancy figures applicable to pre-trial detainees. However where remand prisoners are held separately, the occupancy rate applicable to cells or prisons holding pre-trial detainees should be determined, as these frequently exhibit worse conditions. This may include occupancy of police cells. For example, in Blantyre, the “temporary” police station which was established near Chichiri prison after a fire destroyed the then existing police station, has been in operation for more than 10 years. The three “cells” in this police station are so cramped that detainees have to be let out in small groups in order to eat the food which relatives bring. It would be simple matter to measure the dimension of the cells and count the number held in them. In relation to this indicator, Malawi demonstrably has a problem, at 222% occupancy. Incorporating figures from police cell figures may worsen this figure.

¹³ Judicial Inspectorate for Correctional Services, Annual Report for the period 2011-2012, office of the Inspecting Judge, Cape Town, South Africa.

3.2 Determining approved occupancy

The lack of standardisation in determining approved occupancy or the true number of prison spaces is apparent in Africa. When a prison is said by the authorities to have “an approved occupancy of 300 people” it is unclear what space norm is being applied, and this may vary from country to country. Indeed it is frequently unclear how approved occupancy is calculated, and the numbers provided by prison officials may simply be a reference to Victorian-era building design. It may be a useful exercise for the actual square metres available in prisons to be measured. This could be a once-off exercise which need only be updated when additional prison space becomes available in a country. Approved occupancy figures can then be standardised by reference to a standard number of square metres available per prisoner. Alternatively, “detainees per square metre” may be a more appropriate measure. Note that the type of accommodation may also need to be taken into account – single cells, communal cells, and hospital cells have different implications for space norms.

Figure 5: Percentage occupancy in prisons, selected countries, recent figures ¹⁴



3.3 Time spent outside prison cells

A complicating factor in relation to this measure is that in countries such as Malawi and Mozambique prisoners do not spend the majority of their time in prison cells. Inmates spend

¹⁴ World Prison Brief figures, <http://www.prisonstudies.org/world-prison-brief>.

daylight hours outside cells but inside prison compound walls. It is only at night that prisoners must endure the over 200% occupancy conditions inside covered cells. By contrast in South Africa, prisoners tend to spend 23 out of 24 hours in their overcrowded quarters, with one hour outside for exercise. This raises the question of whether and how the occupancy indicator should reflect the number of hours which must be endured by prisoners in their quarters, or whether an additional indicator should reflect this. A simple method of doing the former would be to use occupancy-hours, which would involve multiplying the occupancy (expressed as a fraction) by the number of hours. This would indicate that South Africa has an “occupancy-hour” measure of 31.05 while Malawi has one of 26.64 – suggesting South Africa has a worse situation than Malawi. Similar figures can be calculated for other countries.

4. Indicator #4: Duration of pre-trial detention

Extended time periods in pre-trial detention are generally considered to be undesirable and infringe fair trial rights. Consequently an indicator which suggests the duration of detention is often considered necessary. An indicator frequently mooted is the mean (or average) time spent by pre-trial detainees in pre-trial detention. The mean or average in statistical terminology is one of the measures of “central tendency”. A measure of central tendency is a single value that attempts to describe a set of data by identifying the central position within that set of data. The arithmetic of the indicator requires the time spent by each detainee to be summed, and then the total sum to be divided by the number of detainees.

4.1 Problems with using the average or mean

The average or mean duration of detention is often used to illustrate detention length. Although some measure of detention length is obviously important, the mean is not the best indicator of the duration of detention. Consider the mean measured for Mzimba prison in Table 3 below, of 73 days. If it were said “On average, detainees in Mzimba spend 73 days in police detention” this would be misleading. In fact, three quarters of all detainees spend 63 or fewer days on remand, and half of people spend less than 31 days. The 73 days mean measured is due to the contribution of the maximum of 639 days. The mean does not, in fact, give the “central tendency” of this dataset.

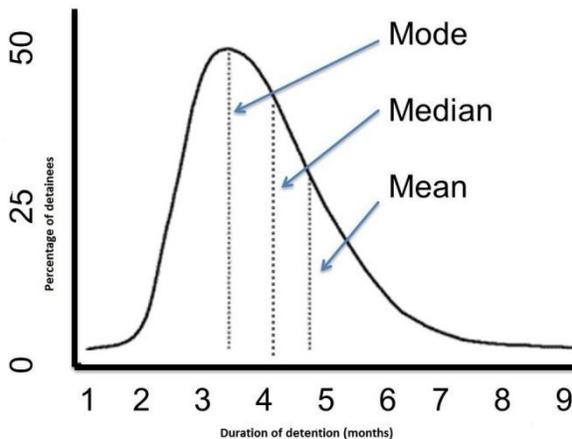
Table 3: Duration of detention at Mzimba prison

Sample information						Time period on remand (days)					
Place	Pop.	Years of data collected	Average turnover	Measure	Obs.in sample	Mean	Min	1/4	Median	3/4	Max
Mzimba Prison	2055	6	343	Admission to Release	87	73	1	11	31	63	639

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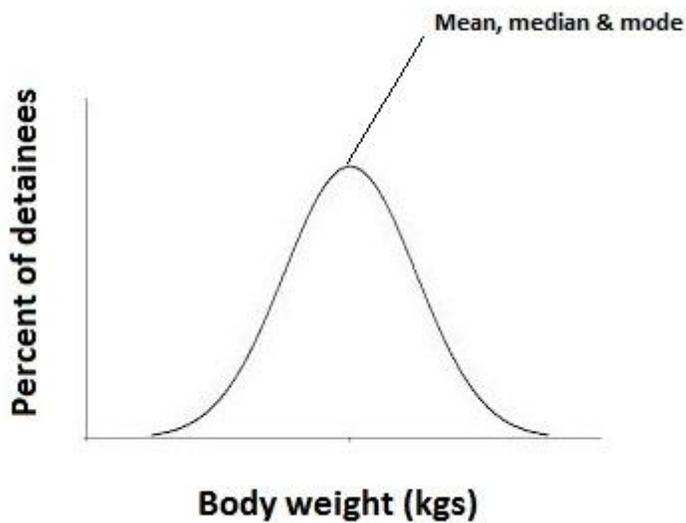
In statistical language what would be said is that the values relating to the duration of pre-trial detention are not “normally distributed”. This means they are not clustered around a common value. The distribution of durations of any kind tend to be skewed, because they have an absolute minimum of 0 but a maximum which can be very, very large – in Africa, in homicide cases, detainees can spend even decades awaiting trial. Because they tend to exaggerate the mean, such distributions are said to be “positively skewed”.

Figure 6: Positively skewed distribution



To use a mean legitimately, a normal distribution is required. For example, if we were measuring the body weight of detainees, a normal distribution would be much more highly likely, because the body weights would tend to cluster around a particular value. The picture below shows a normal distribution. In a classic normal distribution, the mean, median and mode are all the same value.

Figure 7: A normal distribution



4.2 Determining the median

A better measure of duration of detention of a population is the median. If all the time periods spent in detention are ranked by length of detention, from the shortest duration to the longest duration, the median is the middle number – half of people spend the median or less long than the median in detention, and half of people spend the median or longer than the median in detention. Consider the durations in days ranked from left to right below.

1 1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 3 3 4 4 4 5 5 5 5 5 6 6 6 6 6 6 6 8 8 8 8 8 9 9 9 9 9 10 23 45 63
129

possible values is indeterminate, and the maximum could run into decades. Consequently the median is preferable, and indeed the full five-figure spread is preferable to provide an accurate picture of the duration of detention.

4.3 Measuring duration of detention

To actually determine the median, however, either the duration of detention for the entire prison population must be known, and all the values ranked, or, a properly random representative sample of the population must be drawn, and the values ranked. Statistical programmes will frequently carry out the ranking process, and identify the median and other values. What is more challenging however, is actually measuring the duration of detention of each detainee in the dataset.

Release data

The best and most accurate measure of pre-trial detention is to measure the length of detention of each person released from the system. This may be ascertained by reference to their admission and release date. This is seldom routinely recorded by prisons in Africa.

Admissions register data

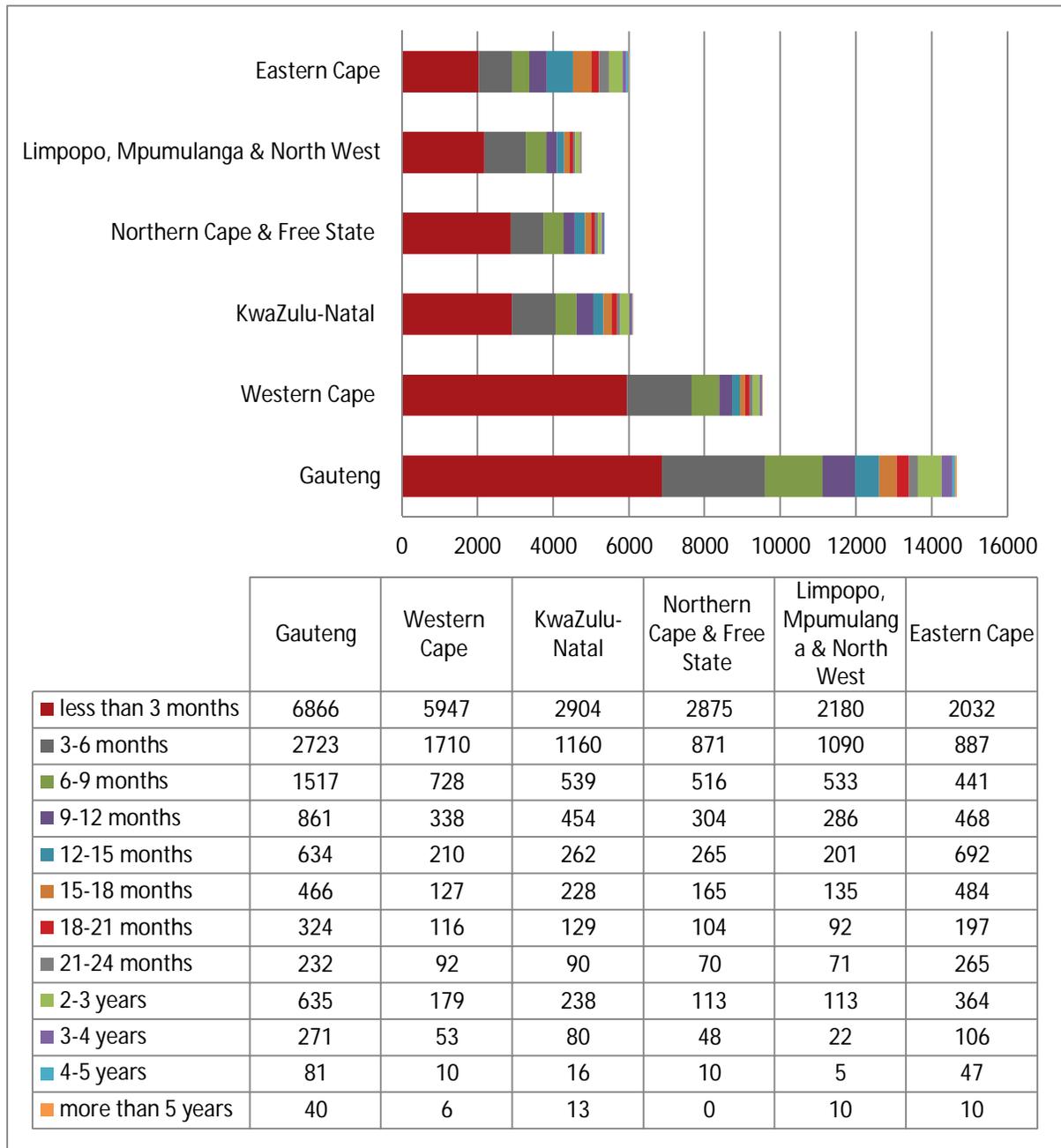
The durations of detention measured in Mzimba in the table above were obtained by drawing random samples (a sample of 40, with the sampling interval determined by dividing the total entries in a year by 40) from each year of admissions registers in the prisons. The duration was calculated by reference to the admission and release dates recorded in these registers. Because the sample only went back five years, this would mean that those admitted more than five years ago would not have been included in the sample. Consequently it is likely that our "maximum", while the maximum in the sample, is not the true maximum. In addition, many entries in the register omitted a release date. The omissions were apparently random but the possibility exists they were not, which would have resulted in the dataset not being representative. For example, if it were the case that only those convicted had their "release" date recorded and others released on bail not, our sample would only have provided data in relation to those who were ultimately convicted.

Data obtained from interviews

Another method of attempting to measure duration is through asking detainees how long they have been in detention and recording these responses. Problems with this method include the reliability of memory, and the existence of motivations which may result in untruthful responses.

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Figure 8: Duration of remand detention in South African prisons, by administrative region



Duration data provided by prisons

Finally, prisons should be aware of how long detainees have been in their care. In countries such as South Africa which have digital record systems, it is theoretically possible to determine the median duration of all those released. In practice most prisons measure neither the mean nor the median but simply report on what number of their detainees have, as at a particular “snapshot” date, spent less than 3 months in detention, 3-6 months, 6-12 months, etc. etc. This is illustrated in the figure above. Such data does not provide the full duration period that

detainees will ultimately spend in imprisonment and may be particularly misleading if large proportions of detainees have spent just more or just less than one of the cut-off margins.

4.4 Problems with interpreting duration as an impact indicator

It is often assumed that an indicator measuring the duration of detention, should show a reduction as a result of the efforts of an organisation such as PASI. It is theorised that through their work, people are released earlier than would otherwise be the case. However, the measured duration of pre-trial detention may actually rise if PASI's efforts are successful at keeping less serious offences out of remand and detainees on remand increasingly consist of more serious offenders whose cases take longer to resolve.

Indeed PASI's work now explicitly includes providing assistance to those in police cells to prevent them entering remand detention. The durations of detention calculated through sample data in Malawi were not, on the whole egregiously long, but may quickly rise should PASI succeed in keeping less serious offenders out of the remand system. None of the indicators, save for the occupancy rate, seems to indicate a serious demand for PASI's work. There appears to be an element missing in the pre-trial detention indicator picture.

5. Indicator #5: Pre-trial admission rate

A form of pre-trial detention perhaps more common in Africa than in other jurisdictions is "pre-trial" detention *which is never intended to result in a trial*. In Zimbabwe and other countries experiencing political conflict, "human rights defenders" and the political opposition are harassed and their work disrupted by targeted periods of incarceration. In South Africa, changes to bail law introduced in 2008 mean that for many, bail applications will only be heard more than two weeks after arrest, so that many spend at least two weeks pre-trial; half of all cases end in withdrawal. Such "pre-trial" detention may be for a relatively short period of time but may be frequently applied, resulting in a high proportion of people in the country being exposed to some form of "pre-trial detention".

The primary proposed indicator to track this trend is the pre-trial admission rate. This is the percentage of the population admitted to imprisonment without a conviction. This indicator provides a measure of the frequency with which the authorities use pre-trial detention. The arithmetic of the measure requires all the admissions to detention occurring over a defined period to be counted and divided by the adult population and multiplied by 100 000, to obtain a pre-trial admission rate per 100 000 population. Data collected recently provides an indication of the value this indicator may take in Malawi. A similar calculation can be made for admissions to police detention.

5.1 Estimating police cell admission rate

On average there were 11 300 admissions counted per year over the period January 2006 – June 2011 at five police stations in Malawi, as recorded in police registers, suggesting on average 2260 per police station per year. As there are 42 police stations (excluding police posts and police units) in Malawi, an estimate of 95 000 persons admitted to police cells per year appears not to be unreasonable. The estimated rate of yearly adult police cell admissions is thus just more than 1 000 per 100 000 or 1 for every 100 adults. While it is likely that many admissions may be repeat admissions, 1 in 100 does suggest relatively frequent use of police detention by the state.

5.2 Estimating prison remand admission rate

At the six adult prisons from which admissions data was collected in Malawi, there were on average 8 400 admissions to prison on remand per year over the period January 2006 – June 2011. As there are 25 prisons in Malawi, an estimate of 35 000 adult persons admitted to remand imprisonment per year is calculated.

Like many developing countries, the youth comprise a large proportion of the Malawi population. Approximately 45% of the population is 15 or younger. Consequently the adult population at the time of the study comprised approximately 8 million people. Using the above admissions estimates for prisons which hold only adults, the estimated rate of yearly adult prison remand admissions is thus around 440 per 100 000 adults per year.

The figures together further suggest that slightly more than 1 in 3 persons arrested and held in police cells are subsequently held on remand in prison.¹⁵

A further interesting aspect of the admissions data is that the representation of women was around 10% of all admissions, a higher proportion than usually reflected in “snapshot” counts. This suggests women are arrested to a greater extent than previously thought, but may spend less long in detention than men, accounting for their lower representation in snapshot prison data.

5.3 Estimating child remand admission rate

Estimates for children admitted to pre-trial detention can also be made for Malawi, as children are held in separate facilities. There are two main children’s prisons in Malawi. At Kachere children’s prison in Lilongwe, 6 300 children were on average admitted each year. Mvumbe children’s prison in Blantyre is thought to exhibit similar trends, suggesting at least 12 600

¹⁵ This cannot be used as a measure of the extent to which courts mandate pre-trial detention, as many people on court-mandated remand are held in police cells.

children admitted to remand. For these two prisons alone, the admission rate is 194 per 100 000 children per year.

5.4 Problems with measuring admission rate

There are clearly a great deal of methodological problems with these estimates, the most important being that the prisons and police stations surveyed may not be adequately representative to permit a simple extrapolation to all prisons and police stations in Malawi of the average admission counts. However the object of the exercise was not to arrive at an accurate number but to illustrate that this indicator of pre-trial detention may highlight an aspect of pre-trial detention not apparent in other indicators.

5.5 Problems with admission rate as impact measure

Although this is a useful indicator of the potential demand for PASI's services – and if confined to prisons admissions may track PASI's success in preventing admissions to prison – none of the indicators currently speak to measuring the impact of PASI's core work, which primarily involves securing release from pre-trial detention. As noted above, the ratio and rate per 100 000 have dropped to such an extent that further decreases are unlikely. The duration of remand detention, measured in relation to people still on remand, may in fact rise, if PASI's work is effective in keeping less serious offenders out of remand imprisonment. And PASI has little influence over admissions to police detention, although some advocacy may influence these trends. Another indicator is needed which incorporates measurement of the key impact of PASI's work – in securing releases of those being detained by the state.

6. Indicator #6: Pre-trial exposure

The pre-trial exposure rate measures the extent to which the people of a country are exposed to pre-trial detention over a defined period. The arithmetic of the measure requires the number in detention at the beginning of the time period to be summed to the number admitted during the time period, and then divided by the population (recall the comments relating to adult population above). For example, "a quarterly exposure rate" first requires the exposure number to be calculated by adding the total in pre-trial custody at the beginning of the quarter plus pre-trial admissions during the quarter.

In Malawi this can easily be done by a simple head-count at the beginning of the quarter and then counting in remand registers the number of admissions during the quarter. Indeed it would even be possible to carry out such an exercise to also measure exposure to detention in police cells. In countries where admissions registers exist, it is relatively straightforward to ascertain how many have been detained over the preceding period.

6.1 Estimated exposure rates for Malawi and South Africa

In Malawi typical numbers (using estimates derived above) might be 2 900 in pre-trial detention in prisons as at 1 January plus 35 000 admitted 1 January to 31 December. The “yearly exposure rate” that is, the number of all people exposed to pre-trial detention (in prisons only) over the year is thus 37 900 (“yearly exposure number”). Using a population figure of 15.9 million, this implies a yearly exposure rate of 238 per 100 000.

A similar calculation for South Africa for the year commencing 1 April 2010 shows 50 511 on in pre-trial detention and 227 664 in pre-trial detention admitted in the following year. The yearly exposure number is 278 175. Using a population figure for 2010 of 49 million, the yearly exposure rate is 568 per 100 000.

Adult exposure rates may also be calculated. For Malawi, the adult yearly exposure rate is 467 per 100 000 while for South Africa it is as high as 1113 per 100 000. That is, 1 in 100 adults in South Africa is exposed to pre-trial detention each year.

6.2 Use exposure number within countries

Given the problems with population estimates alluded to above, within country comparisons over short time periods should probably use exposure number rather than exposure rate. In other words, the number detained at the beginning of the time period plus admissions, is compared to the number detained at the beginning of the next period, plus admissions, without reference to population. Comparisons can then be made from one time period to the next.

6.3 Interpreting the exposure rate or number

An increase in exposure can imply an increase in admissions, or an overall increase in duration of detention – in other words, a tendency to be released later. Similarly, a decrease in exposure can either imply a decrease in admissions or an overall decrease in duration of detention. To illustrate, assume that at the beginning of the first quarter there are 2000 remand detainees in prison and a further 8 750 admissions in the quarter. Thus the exposure number for the first quarter is 10 750. At the beginning of the second quarter there are 2 200 on remand and 7 700 are admitted in that quarter, making an exposure number of 9 900. The reduction in exposure number is 850, or the percentage reduction in exposure number is 8%.

6.4 Measuring paralegal impact using exposure and releases

The direct impact of PASI’s case work in contributing to change in the value of the indicator can be quantified using the exposure concept, and PASI’s overall work is also reflected in the indicator. While PASI’s case work leads directly to releases, their legal aid clinics in which they

train groups of detainees in criminal procedure also empowers some detainees to help themselves secure release. Thus the total number of releases quarter on quarter – and thus one component of the change in exposure rate – is influenced by PASI's work. PASI's other work toward reducing arrests for less serious offences, is furthermore likely to be reflected in the admissions component. Hence the total variation is reflected in an impact indicator highly relevant to PASI's overall operation. It is also relatively easy to measure, requiring only headcounts and admissions counts each quarter or each period of interest. This can easily be done using admissions registers and prison head counts.

It is also informative to measure the direct impact of PASI's case work leading to releases. PASI records the number of releases it directly facilitates. If total releases are known, then PASI's contribution as a percentage of total releases can be calculated. Prisons in Malawi do not routinely record releases, but releases can be calculated. Recall that exposure is a sum of admissions and number initially held in detention. In the example above, the reduction in exposure of 850 comprised some releases in the first quarter. These can be calculated. The total number of releases in the first quarter is simply the exposure number in the first quarter, less the number in detention at the beginning of the second quarter. Thus the releases in the first quarter amounted to 8 550 releases (10 750 (exposure) less 2 200 (number in detention at start of second quarter)). If PASI facilitated 900 releases, then it accounted for 11% of all releases in the first quarter. Had PASI not secured these releases, the exposure number in the second quarter would have been 10 800, and not 9 900. Thus their (direct) impact on the value of the exposure number in the second quarter is 9%, through first quarter releases.

Conclusion

The indicators discussed in this paper are by no means definitive nor exhaustive. Absent, for example, is an indicator measuring the quality of court decisions to detain a person pre-trial. This is highly relevant particularly in countries which demonstrates a low pre-trial ratio. This paper is intended as a starting point for a broader discussion of the pitfalls and possibilities of indicator development in relation to pre-trial detention in Africa. The paper does, however, make the following broad suggestions for indicators developed for the African context:

- Indicators which use the number of persons in pre-trial detention should incorporate into the count the number of people held in police cells beyond the 48 hour (or applicable legal) period.
- Moving averages of the number in detention should be used whenever possible.
- Indicators which use the rate per 100 000 should be based on the adult population, rather than the total population.

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- Approved occupancy numbers should be determined by reference to standardised occupancy norms. “Occupancy-hours” should be considered as an alternative indicator appropriate to the African context.
- Duration of detention should be measured on release of detainees. The median detention should be the measure of central tendency used, and not the mean.
- Admissions to pre-trial detention, including to police cells, should be counted, and an admission rate indicator used.
- The impact of interventions, such as legal assistance, can be tracked using an “exposure number” and “exposure rate” indicator. For such an indicator, admissions during the period in question must be counted and the number in detention at the beginning and end of a period of interest.

Finally, all quantitative indicators such as these should be checked against the qualitative experience of justice in the country concerned.



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