

# VERBAL AUTOPSY PROCEDURE

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## INTRODUCTION

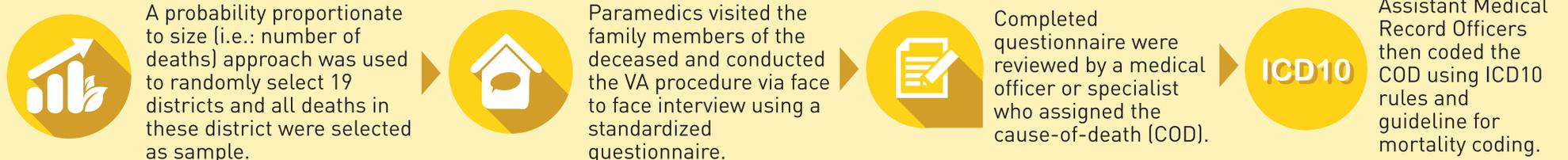
The recently released mortality data for the year 2008 showed that almost 60% of non-medically certified deaths (NMCD) in Malaysia were coded as "ill-defined conditions"<sup>1</sup>. This gave very limited information on the real cause of deaths in Malaysia. **Verbal Autopsy (VA)** is widely being used in many countries as a method of ascertaining the causes of deaths in places where the majority of deaths occur without medical supervision<sup>2</sup>.

## OBJECTIVE

To determine the possible cause of ill-defined mortality of NMCD using verbal autopsy (VA) procedure.

## METHODOLOGY

This was a cross-sectional study conducted in 2014 using the 2013 deaths as the study population.



## RESULTS

The proportion of deaths reported as "symptoms and ill-defined conditions" were reduced from 66.4% to 25.1% (a reduction of 41.3%; these were subsequently reallocated)

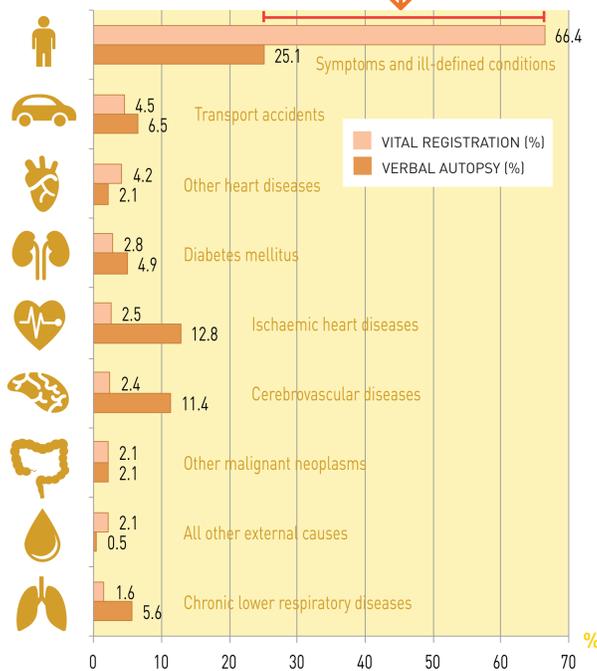


Fig 1: Changes in the top 10 causes of deaths using Verbal Autopsy Procedure

Among **males**, top 5 reallocation diagnoses of "symptoms and ill-defined conditions" were ischaemic heart disease (13.3%), cerebrovascular diseases (11.8%), chronic lower respiratory diseases (8.8%), pneumonia (5.5%) and diabetes mellitus (4.7%).

Among **females**, similar pattern was seen with the top 5 reallocation diagnoses were also among those 5 diagnoses (with slight differences in the percentages).



Fig 2: Total percentages of reallocation of symptoms & ill-defined conditions to other causes-of-death; MALES on left, FEMALES on right

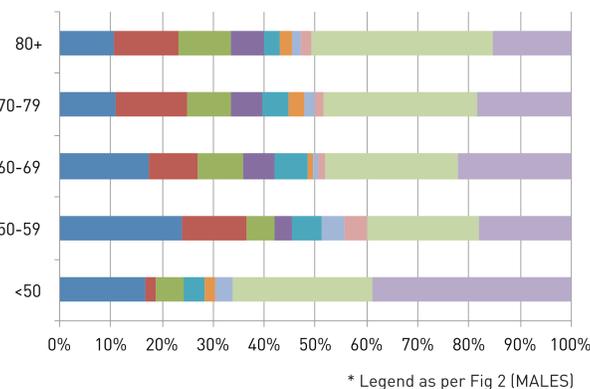


Fig 3: Percentages of reallocation of symptoms & ill-defined conditions (MALES, BROKEN DOWN BY AGE GROUP)

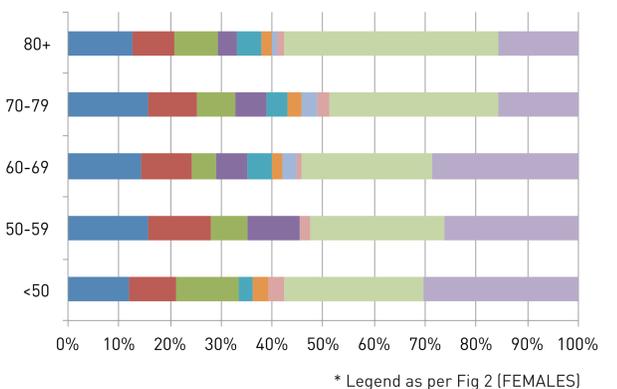


Fig 4: Percentages of reallocation of symptoms & ill-defined conditions (FEMALES, BROKEN DOWN BY AGE GROUP)

## DISCUSSION

Cause-of-death data derived from VA are increasingly used for health planning, priority setting, monitoring and evaluation<sup>2</sup>.

VA procedure was able to reduce more than 40% of ill-defined CODs in this study.

More than 20% of reallocation were into cardiovascular diseases. A similar pattern was also reported by VA study in Thailand<sup>3</sup>.

Almost a quarter of cause-of-deaths were still recorded as ill-defined. This is slightly higher than reported by a study in Vietnam (around 10%)<sup>4</sup>.

The inability of VA to ascertain the specific cause-of-deaths may be due to the absence of clear symptom patterns in these cases<sup>3</sup>.

## CONCLUSION

1. The development and application of VA methods are an important step toward the improvement of data quality from vital registration.
2. Verbal Autopsy should routinely be used to determine the cause of non-medically certified deaths.

## REFERENCES

1. Institute for Public Health (2012). The second burden of disease and injury study 2008. Kuala Lumpur.
2. Nadia S, Daniel C, Kenji S [2006]. Verbal autopsy : Current practices and challenges. Buletion of the World Health Organization; 84:239-245.
3. Warangkana P, Chalapati R, Timothy A, et al (2010). Cause-of-death ascertainment for deaths that occur outside hospitals in Thailand : Application of verbal autopsy methods. Population Health Metrics; 8:13.
4. Anh DN, Chalapati R, Nguyen PH, et al (2010). Mortality patterns in Vietnam, 2006 : Findings from a national verbal autopsy survey. BMC Research Notes; 3:78.

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