

# Package ‘dhsage’

July 22, 2025

**Type** Package

**Title** Reproductive Age Female Data of Various Demographic Health Surveys

**Version** 0.1.0

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**Depends** R (>= 4.0)

**Description** We provide 70 data sets of females of reproductive age from 19 Asian countries, ranging in age from 15 to 49. The data sets are extracted from demographic and health surveys that were conducted over an extended period of time. Moreover, the functions also provide Whipple’s index as well as age reporting quality such as very rough, rough, approximate, accurate, and highly accurate.

**License** GPL (>= 2)

**Encoding** UTF-8

**RoxygenNote** 7.2.3

**NeedsCompilation** no

**Repository** CRAN

**Date/Publication** 2023-10-05 07:00:02 UTC

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dhsage-package	<i>Reproductive Age Female Data of Various Demographic Health Surveys</i>
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## Description

We provide 70 data sets of females of reproductive age from 19 Asian countries, ranging in age from 15 to 49. The data sets are extracted from demographic and health surveys that were conducted over an extended period of time. Moreover, the functions also provide Whipple's index as well as age reporting quality such as very rough, rough, approximate, accurate, and highly accurate.

## Details

Package: dhsage  
 Type: Package  
 Version: 0.1.0  
 Date: 2023-10-04  
 License: GPL-2

## Maintainers

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Afghanistan	<i>The data represent the number of women of reproductive age in Afghanistan</i>
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## Description

The function provides the number of women of reproductive age 15-49 in Afghanistan based on the demographic health survey of 2010 and 2015.

## Usage

```
afgan_2015  
afgan_2010
```

## Arguments

afgan_2015	A vector of (non-negative) count values.
afgan_2010	A vector of (non-negative) count values.

## Details

Based on the demographic health surveys from 2010 and 2015, the function gives the number of Afghan women in the reproductive age range of 15 to 49.

## Value

afgan\_2015 and afgan\_2010 give the number of women of reproductive age 15-49 in Afghanistan.

## Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshako0r84@yahoo.com>.

## References

Central Statistics Organization (CSO), Ministry of Public Health (MoPH), and ICF. 2017. Afghanistan Demographic and Health Survey 2015. Kabul, Afghanistan: Central Statistics Organization.

Central Statistics Organization (CSO), Ministry of Public Health (MoPH), and ICF. 2010. Afghanistan Demographic and Health Survey 2010. Kabul, Afghanistan: Central Statistics Organization.

## See Also

[afgan\\_2010](#), [armen\\_2010](#), [camb\\_2010](#), [heaping](#)

**Examples**

```
x <- afgan_2010
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Armenia

---

*The data represent the number of women of reproductive age in Armenia*


---

**Description**

The function provides the number of women of reproductive age 15-49 in Armenia based on the demographic health survey of 2000, 2005, 2010 and 2015.

**Usage**

```
armen_2015
armen_2010
armen_2005
armen_2000
```

**Arguments**

armen_2015	A vector of (non-negative) count values.
armen_2010	A vector of (non-negative) count values.
armen_2005	A vector of (non-negative) count values.
armen_2000	A vector of (non-negative) count values.

**Details**

Using data from the demographic health surveys conducted in Armenia in 2000, 2005, 2010, and 2015, the function indicates the number of women in Armenia between the ages of 15 and 49 who are fertile.

**Value**

armen\_2015, armen\_2010, armen\_2005 and armen\_2000 give the number of women of reproductive age 15-49 in Armenia.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshako0r84@yahoo.com>.

## References

National Statistical Service [Armenia], Ministry of Health [Armenia], and ICF. 2017. Armenia Demographic and Health Survey 2015-16. Rockville, Maryland, USA: National Statistical Service, Ministry of Health, and ICF.

National Statistical Service [Armenia], Ministry of Health [Armenia], and ICF International. 2012. Armenia Demographic and Health Survey 2010. Calverton, Maryland: National Statistical Service, Ministry of Health, and ICF International.

National Statistical Service [Armenia], Ministry of Health [Armenia], and ORC Macro. 2006. Armenia Demographic and Health Survey 2005. Calverton, Maryland: National Statistical Service, Ministry of Health, and ORC Macro.

National Statistical Service [Armenia], Ministry of Health [Armenia], and ORC Macro. 2001. Armenia Demographic and Health Survey 2000. Calverton, Maryland: National Statistical Service, Ministry of Health, and ORC Macro.

## See Also

[afgan\\_2015](#), [india\\_2015](#), [heaping](#)

## Examples

```
x <- armen_2015
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Azerbaijan

*The data represent the number of women of reproductive age in Azerbaijan*

---

## Description

The function provides the number of women of reproductive age 15-49 in Azerbaijan based on the demographic health survey of 2006.

## Usage

```
azer_2006
```

## Arguments

`azer_2006` A vector of (non-negative) count values.

## Details

Based on the 2006 demographic health survey, the function gives the number of women in Azerbaijan between the ages of 15 and 49.

**Value**

azer\_2006 gives the number of women of reproductive age 15-49 in Azerbaijan.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

State Statistical Committee (SSC) [Azerbaijan] and Macro International Inc. 2008. Azerbaijan Demographic and Health Survey 2006. Calverton, Maryland, USA: State Statistical Committee and Macro International Inc.

**See Also**

[nep\\_2006](#), [pak\\_2006](#), [heaping](#)

**Examples**

```
x <- azer_2006
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Bangladesh

*The data represent the number of women of reproductive age in Bangladesh*

---

**Description**

The function provides the number of women of reproductive age 15-49 in Bangladesh based on the demographic health survey of 1993, 1996, 1999, 2001, 2004, 2007, 2011 and 2014.

**Usage**

```
bang_2014
bang_2011
bang_2007
bang_2004
bang_2001
bang_1999
bang_1996
bang_1993
```

**Arguments**

bang_2014	A vector of (non-negative) count values.
bang_2011	A vector of (non-negative) count values.
bang_2007	A vector of (non-negative) count values.
bang_2004	A vector of (non-negative) count values.
bang_2001	A vector of (non-negative) count values.
bang_1999	A vector of (non-negative) count values.
bang_1996	A vector of (non-negative) count values.
bang_1993	A vector of (non-negative) count values.

**Details**

Based on the demographic health surveys from 1993, 1996, 1999, 2001, 2004, 2007, 2011, and 2014, the function gives the number of Bangladeshi women of reproductive age (15–49).

**Value**

bang\_2014, bang\_2011, bang\_2007, bang\_2004, bang\_2001, bang\_1999, bang\_1996 and bang\_1993 give the frequency distribution of Bangladesh women of reproductive age 15 to 49.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International. 2016. Bangladesh Demographic and Health Survey 2014. Dhaka, Bangladesh, and Rockville, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.

National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ICF International. 2013. Bangladesh Demographic and Health Survey 2011. Dhaka, Bangladesh and Calverton, Maryland, USA: NIPORT, Mitra and Associates, and ICF International.

National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International. 2009. Bangladesh Demographic and Health Survey 2007. Dhaka, Bangladesh and Calverton, Maryland, USA: National Institute of Population Research and Training, Mitra and Associates, and Macro International.

National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ORC Macro. 2005. Bangladesh Demographic and Health Survey 2004. Dhaka, Bangladesh and Calverton, Maryland [USA]: National Institute of Population Research and Training, Mitra and Associates, and ORC Macro.

National Institute of Population Research and Training (NIPORT), Mitra and Associates (MA), and ORC Macro (ORM). 2001. Bangladesh Demographic and Health Survey 2001. Dhaka, Bangladesh and Calverton, Maryland [USA]: National Institute of Population Research and Training, Mitra and Associates, and ORC Macro.

National Institute of Population Research and Training (NIPORT), Mitra and Associates (MA), and ORC Macro (ORCM). 2001. Bangladesh Demographic and Health Survey 1999-2000. Dhaka, Bangladesh and Calverton, Maryland [USA]: National Institute of Population Research and Training, Mitra and Associates, and ORC Macro.

Mitra, S.N., Ahmed A1-Sabir, Anne R. Cross, and Kanta Jamil. 1997. Bangladesh Demographic and Health Survey, 1996-1997. Dhaka and Calverton, Maryland: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International Inc.

Mitra, S.N., M. Nawab Ali, Shahidul Islam, Anne R. Cross, and Tulshi Saha. 1994. Bangladesh Demographic and Health Survey, 1993-1994. Calverton, Maryland: National Institute of Population Research and Training (NIPORT), Mitra and Associates, and Macro International Inc.

### See Also

[camb\\_2014](#), [heaping](#)

### Examples

```
x <- bang_2014
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Cambodia	<i>The data represent the number of women of reproductive age in Cambodia</i>
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### Description

The function provides the number of women of reproductive age 15-49 in Cambodia based on the demographic health survey of 2000, 2005, 2010 and 2014.

### Usage

```
camb_2014
camb_2010
camb_2005
camb_2000
```

### Arguments

camb_2014	A vector of (non-negative) count values.
camb_2010	A vector of (non-negative) count values.
camb_2005	A vector of (non-negative) count values.
camb_2000	A vector of (non-negative) count values.



**Details**

Based on the demographic health surveys conducted in 2000, 2005, 2010, and 2014, the function gives data on the number of Cambodian women in the reproductive age range of 15 to 49.

**Value**

camb\_2000, camb\_2005, camb\_2010 and camb\_2014 give the number of women of reproductive age 15-49 in Cambodia.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

National Institute of Statistics, Directorate General for Health, and ICF International, 2015. Cambodia Demographic and Health Survey 2014. Phnom Penh, Cambodia, and Rockville, Maryland, USA: National Institute of Statistics, Directorate General for Health, and ICF International.

National Institute of Statistics, Directorate General for Health, and ICF Macro, 2011. Cambodia Demographic and Health Survey 2010. Phnom Penh, Cambodia and Calverton, Maryland, USA: National Institute of Statistics, Directorate General for Health, and ICF Macro.

National Institute of Public Health, National Institute of Statistics [Cambodia] and ORC Macro. 2006. Cambodia Demographic and Health Survey 2005. Phnom Penh, Cambodia and Calverton, Maryland, USA: National Institute of Public Health, National Institute of Statistics and ORC Macro.

National Institute of Statistics, Directorate General for Health [Cambodia], and ORC Macro. 2001. Cambodia Demographic and Health Survey 2000. Phnom Penh, Cambodia, and Calverton, Maryland USA: National Institute of Statistics, Directorate General for Health, and ORC Macro.

**See Also**

[afgan\\_2010](#), [armen\\_2010](#), [heaping](#)

**Examples**

```
x <- camb_2010
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

India

---

*The data represent the number of women of reproductive age in India*


---

## Description

The function provides the number of women of reproductive age 15-49 in India based on the demographic health survey of 1992, 1998, 2005 and 2015.

## Usage

```
india_2015
india_2005
india_1998
india_1992
```

## Arguments

india_2015	A vector of (non-negative) count values.
india_2005	A vector of (non-negative) count values.
india_1998	A vector of (non-negative) count values.
india_1992	A vector of (non-negative) count values.

## Details

Using data from the demographic health surveys conducted in 1992, 1998, 2005, and 2015, the function assesses the number of women in India between the ages of 15 and 49 who are fertile.

## Value

india\_1992, india\_1998, india\_2005 and india\_2015 give the number of women of reproductive age 15-49 in India.

## Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshako0r84@yahoo.com>.

## References

International Institute for Population Sciences (IIPS) and ICF. 2017. National Family Health Survey (NFHS-4), 2015-16: India. Mumbai: IIPS.

International Institute for Population Sciences (IIPS) and Macro International. 2007. National Family Health Survey (NFHS-3), 2005-06: India: Volume I. Mumbai: IIPS.

International Institute for Population Sciences (IIPS) and ORC Macro. 2000. National Family Health Survey (NFHS-2), 1998-99: India. Mumbai: IIPS.

International Institute for Population Sciences (IIPS). 1995. National Family Health Survey (MCH and Family Planning), India 1992-93. Bombay: IIPS.

**See Also**

[afgan\\_2015](#), [armen\\_2015](#), [heaping](#)

**Examples**

```
x <- india_2015
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Indonesia	<i>The data represent the number of women of reproductive age in Indonesia</i>
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---

**Description**

The function provides the number of women of reproductive age 15-49 in Indonesia based on the demographic health survey of 1987, 1991, 1994, 1997, 2002, 2007, 2012 and 2017.

**Usage**

```
indo_2017
indo_2012
indo_2007
indo_2002
indo_1997
indo_1994
indo_1991
indo_1987
```

**Arguments**

indo_2017	A vector of (non-negative) count values.
indo_2012	A vector of (non-negative) count values.
indo_2007	A vector of (non-negative) count values.
indo_2002	A vector of (non-negative) count values.
indo_1997	A vector of (non-negative) count values.
indo_1994	A vector of (non-negative) count values.
indo_1991	A vector of (non-negative) count values.
indo_1987	A vector of (non-negative) count values.

**Details**

Based on demographic health surveys conducted in Indonesia in 1987, 1991, 1994, 1997, 2002, 2007, 2012, and 2017, the function gives data on the number of women in reproductive age (15–49).

**Value**

indo\_1987, indo\_1991, indo\_1994, indo\_1997, indo\_2002, indo\_2007, indo\_2012 and indo\_2017 give the number of women of reproductive age 15-49 in Indonesia.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

National Population and Family Planning Board (BKKBN), Statistics Indonesia (BPS), Ministry of Health (Kemenkes), and ICF. 2018. Indonesia Demographic and Health Survey 2017. Jakarta, Indonesia: BKKBN, BPS, Kemenkes, and ICF.

Statistics Indonesia (Badan Pusat Statistik—BPS), National Population and Family Planning Board (BKKBN), and Kementerian Kesehatan (Kemenkes—MOH), and ICF International. 2013. Indonesia Demographic and Health Survey 2012. Jakarta, Indonesia: BPS, BKKBN, Kemenkes, and ICF International.

Statistics Indonesia (Badan Pusat Statistik—BPS) and Macro International. 2008. Indonesia Demographic and Health Survey 2007. Calverton, Maryland, USA: BPS and Macro International.

Badan Pusat Statistik-Statistics Indonesia (BPS) and ORC Macro. 2003. Indonesia Demographic and Health Survey 2002-2003. Calverton, Maryland, USA: BPS and ORC Macro

Central Bureau of Statistics (CBS) [Indonesia] and State Ministry of Population/National Family Planning Coordinating Board (NFPCB) and Ministry of Health (MOH) and Macro International Inc. (MI). 1998. Indonesia Demographic and Health Survey 1997. Calverton, Maryland: CBS and MI.

Central Bureau of Statistics (CBS) [Indonesia] and State Ministry of Population/National Family Planning Coordinating Board (NFPCB) and Ministry of Health (MOH) and Macro International Inc. (MI). 1995. Indonesia Demographic and Health Survey 1994. Calverton, Maryland: CBS and MI

Central Bureau of Statistics- CBS/Indonesia and Ministry of Health- MOH/Indonesia and Macro International. 1992. Indonesia Demographic and Health Survey 1991. Calverton, Maryland, USA: CBS and Macro International.

Central Bureau of Statistics- CBS/Indonesia and State Ministry of Population/National Family Planning Coordinating Board-NFPCB/Indonesia and Institute for Resources Development/Westinghouse. 1989. National Indonesia Contraceptive Prevalence Survey 1987. Calverton, Maryland, USA: CBS and Institute for Resource Development/Westinghouse.

**See Also**

[jord\\_2017](#), [pak\\_2017](#), [phil\\_2017](#), [heaping](#)

**Examples**

```
x <- indo_2017
# starting age 23 and ending age 62
```

```

heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)

```

---

Jordan

*The data represent the number of women of reproductive age in Jordan*


---

## Description

The function provides the number of women of reproductive age 15-49 in Jordan based on the demographic health survey of 1990, 1997, 2002, 2007, 2009, 2012 and 2017.

## Usage

```

jord_2017
jord_2012
jord_2009
jord_2007
jord_2002
jord_1997
jord_1990

```

## Arguments

jord_2017	A vector of (non-negative) count values.
jord_2012	A vector of (non-negative) count values.
jord_2009	A vector of (non-negative) count values.
jord_2007	A vector of (non-negative) count values.
jord_2002	A vector of (non-negative) count values.
jord_1997	A vector of (non-negative) count values.
jord_1990	A vector of (non-negative) count values.

## Details

According to the 1990, 1997, 2002, 2007, 2009, 2012, and 2017 demographic health surveys, the function provides the Jordanian number of women between the ages of 15 and 49.

## Value

jord\_1990, jord\_1997, jord\_2002, jord\_2007, jord\_2009, jord\_2012 and jord\_2017 give the number of women of reproductive age 15-49 in Jordan.

## Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

## References

- Department of Statistics (DOS) and ICF. 2019. Jordan Population and Family and Health Survey 2017-18. Amman, Jordan, and Rockville, Maryland, USA: DOS and ICF.
- Department of Statistics [Jordan] and ICF International. 2013. Jordan Population and Family Health Survey 2012. Calverton, Maryland, USA: Department of Statistics and ICF International.
- Department of Statistics [Jordan] and ICF Macro. 2010. Jordan Population and Family Health Survey 2009. Calverton, Maryland, USA: Department of Statistics and ICF Macro.
- Department of Statistics [Jordan] and Macro International Inc. 2008. Jordan Population and Family Health Survey 2007. Calverton, Maryland, USA: Department of Statistics and Macro International Inc.
- Department of Statistics [Jordan] and ORC Macro. 2003. Jordan Population and Family Health Survey 2002. Calverton, Maryland, USA: Department of Statistics and ORC Macro.
- Department of Statistics (DOS) [Jordan] and Macro International Inc. (MI). 1998. Jordan Population and Family Health Survey 1997. Calverton, Maryland: DOS and MI.
- Abdel Aziz Zoubi, Abdallah, Sri Poedjastoeti, and Mohamed Ayad. 1992. Jordan Population and Family Health Survey 1990. Columbia, Maryland, USA: Department of Statistics/Jordan, Ministry of Health/Jordan, and IRD/Macro International.

## See Also

[pak\\_2017](#), [phil\\_2017](#), [heaping](#)

## Examples

```
x <- jord_2017
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Maldives

*The data represent the number of women of reproductive age in Maldives*

---

## Description

The function provides the number of women of reproductive age 15-49 in Maldives based on the demographic health survey of 2009 and 2016.

## Usage

```
mal_2016
mal_2009
```

**Arguments**

mal\_2016      A vector of (non-negative) count values.  
 mal\_2009      A vector of (non-negative) count values.

**Details**

Based on the demographic health surveys conducted in 2009 and 2016, the function gives the number of Maldivian women in the reproductive age range of 15 to 49.

**Value**

mal\_2009 and mal\_2016 give the number of women of reproductive age 15-49 in Maldives.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

**References**

Ministry of Health (MOH) [Maldives] and ICF. 2018. Maldives Demographic and Health Survey 2016-17. Male, Maldives, and Rockville, Maryland, USA: MOH and ICF.

Ministry of Health and Family (MOHF) [Maldives] and ICF Macro. 2010. Maldives Demographic and Health Survey 2009. Calverton, Maryland: MOHF and ICF Macro.

**See Also**

[timor\\_2009](#), [jord\\_2009](#), [heaping](#)

**Examples**

```
x <- mal_2009
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Myanmar

*The data represent the number of women of reproductive age in Myanmar*

---

**Description**

The function provides the number of women of reproductive age 15-49 in Myanmar based on the demographic health survey of 2016.

**Usage**

myan\_2016

**Arguments**

myan\_2016      A vector of (non-negative) count values.

**Details**

According to the 2016 Demographic Health Survey, the function gives the number of women in Myanmar who are between the ages of 15 and 49 and in the reproductive age range.

**Value**

myan\_2016 gives the number of women of reproductive age 15-49 in Myanmar.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

Ministry of Health and Sports (MoHS) and ICF. 2017. Myanmar Demographic and Health Survey 2015-16. Nay Pyi Taw, Myanmar, and Rockville, Maryland USA: Ministry of Health and Sports and ICF.

**See Also**

[nep\\_2016](#), [timor\\_2016](#), [mal\\_2016](#), [heaping](#)

**Examples**

```
x <- myan_2016
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```



---

Nepal

*The data represent the number of women of reproductive age in Nepal*

---

### Description

The function provides the number of women of reproductive age 15-49 in Nepal based on the demographic health survey of 2016, 2011, 2006, 2001 and 1996.

### Usage

```
nep_2016  
nep_2011  
nep_2006  
nep_2001  
nep_1996
```

### Arguments

nep_2016	A vector of (non-negative) count values.
nep_2011	A vector of (non-negative) count values.
nep_2006	A vector of (non-negative) count values.
nep_2001	A vector of (non-negative) count values.
nep_1996	A vector of (non-negative) count values.

### Details

Based on the demographic health surveys conducted in 2016, 2011, 2006, 2001, and 1996, the function gives the number of Nepalese women between the ages of 15 and 49.

### Value

nep\_1996, nep\_2001, nep\_2006, nep\_2011 and nep\_2016 give the number of women of reproductive age 15-49 in Nepal.

### Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshako084@yahoo.com>.

### References

Ministry of Health, Nepal; New ERA, Nepal; Nepal Health Sector Support Program (NHSSP); and ICF. 2017. Nepal Health Facility Survey 2015. Kathmandu, Nepal: Ministry of Health, Nepal.

Ministry of Health and Population (MOHP) [Nepal], New ERA, and ICF International Inc. 2012. Nepal Demographic and Health Survey 2011. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and ICF International, Calverton, Maryland.

Ministry of Health and Population (MOHP) [Nepal], New ERA, and Macro International Inc. 2007. Nepal Demographic and Health Survey 2006. Kathmandu, Nepal: Ministry of Health and Population, New ERA, and Macro International Inc.

Ministry of Health [Nepal], New ERA, and ORC Macro. 2002. Nepal Demographic and Health Survey 2001. Calverton, Maryland, USA: Family Health Division, Ministry of Health; New ERA; and ORC Macro.

Pradhan, Ajit, Ram Hari Aryal, Gokarna Regmi, Bharat Ban, and Pavalavalli Govindasamy. 1997. Nepal Family Health Survey 1996. Kathmandu, Nepal and Calverton, Maryland: Ministry of Health [Nepal], New ERA, and Macro International Inc.

### See Also

[myan\\_2016](#), [timor\\_2016](#), [mal\\_2016](#), [heaping](#)

### Examples

```
x <- nep_2016
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Pakistan

*The data represent the number of women of reproductive age in Pakistan*

---

### Description

The function provides the number of women of reproductive age 15-49 in Pakistan based on the demographic health survey of 2017, 2012, 2006 and 1990.

### Usage

```
pak_2017
pak_2012
pak_2006
pak_1990
```

### Arguments

<code>pak_2017</code>	A vector of (non-negative) count values.
<code>pak_2012</code>	A vector of (non-negative) count values.
<code>pak_2006</code>	A vector of (non-negative) count values.
<code>pak_1990</code>	A vector of (non-negative) count values.

**Details**

The function provides information on the number of women in Pakistan who are 15–49 years old and of reproductive age based on the demographic health surveys from 2017, 2012, 2006, and 1990.

**Value**

`pak_1990`, `pak_2006`, `pak_2012` and `pak_2017` give the number of women of reproductive age 15–49 in Pakistan.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

National Institute of Population Studies (NIPS) [Pakistan] and ICF. 2019. Pakistan Demographic and Health Survey 2017-18. Islamabad, Pakistan, and Rockville, Maryland, USA: NIPS and ICF.

National Institute of Population Studies (NIPS) [Pakistan] and ICF International. 2013. Pakistan Demographic and Health Survey 2012-13. Islamabad, Pakistan, and Calverton, Maryland, USA: NIPS and ICF International.

National Institute of Population Studies (NIPS) [Pakistan], and Macro International Inc. 2008. Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan: National Institute of Population Studies and Macro International Inc.

National Institute of Population Studies - NIPS/Pakistan and Institute for Resource Development - IRD/Macro International. 1992. Pakistan Demographic and Health Survey 1990/1991. Islamabad, Pakistan: NIPS/Pakistan and IRD/Macro International.

**See Also**

[jord\\_2017](#), [phil\\_2017](#), [heaping](#)

**Examples**

```
x <- pak_2017
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Philippines	<i>The data represent the number of women of reproductive age in the Philippines</i>
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---

### Description

The function provides the number of women of reproductive age 15-49 in the Philippines based on the demographic health survey of 2017, 2013, 2008, 2003, 1998 and 1993.

### Usage

```
phil_2017  
phil_2013  
phil_2008  
phil_2003  
phil_1998  
phil_1993
```

### Arguments

phil_2017	A vector of (non-negative) count values.
phil_2013	A vector of (non-negative) count values.
phil_2008	A vector of (non-negative) count values.
phil_2003	A vector of (non-negative) count values.
phil_1998	A vector of (non-negative) count values.
phil_1993	A vector of (non-negative) count values.

### Details

The function provides the number of women in the Philippines between the ages of 15 and 49 who are now capable of bearing children, based on the demographic health surveys carried out in 2017, 2013, 2008, 2003, 1998, and 1993.

### Value

phil\_1993, phil\_1998, phil\_2003, phil\_2008, phil\_2013 and phil\_2017 give the number of women of reproductive age 15-49 in the Philippines.

### Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

## References

Philippine Statistics Authority (PSA) and ICF. 2018. Philippines National Demographic and Health Survey 2017. Quezon City, Philippines, and Rockville, Maryland, USA: PSA and ICF.

Philippine Statistics Authority (PSA) [Philippines], and ICF International. 2014. Philippines National Demographic and Health Survey 2013. Manila, Philippines, and Rockville, Maryland, USA: PSA and ICF International.

National Statistics Office (NSO) [Philippines], and ICF Macro. 2009. National Demographic and Health Survey 2008. Calverton, Maryland: National Statistics Office and ICF Macro.

National Statistics Office (NSO) [Philippines], and ORC Macro. 2004. National Demographic and Health Survey 2003. Calverton, Maryland: NSO and ORC Macro.

National Statistics Office (NSO), Department of Health (DOH) [Philippines] and Macro International Inc. (MI). 1999. National Demographic and Health Survey 1998. Manila: NSO and MI.

National Statistics Office (NSO) [Philippines] and Macro International Inc. (MI). 1994. National Demographic Survey 1993. Calverton, Maryland: NSO and MI.

## See Also

[pak\\_2017](#), [heaping](#)

## Examples

```
x <- phil_2017
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Sri Lanka

*The data represent the number of women of reproductive age in the Sri Lanka*

---

## Description

The function provides the number of women of reproductive age 15-49 in Sri Lanka based on the demographic health survey of 1987.

## Usage

```
sri_1987
```

## Arguments

`sri_1987` A vector of (non-negative) count values.

**Details**

According to the 1987 demographic health census, the function gives Sri Lankan women between the ages of 15 and 49 who are fertile.

**Value**

sri\_1987 gives the number of women of reproductive age 15-49 in Sri Lanka.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

Department of Census and Statistics Ministry of Plan Implementation/Sri Lanka and Institute for Resource Development/Westinghouse. 1988. Sri Lanka Demographic and Health Survey 1987. Columbia, Maryland, USA: Institute for Resources Development/Westinghouse.

**See Also**

[thai\\_1987](#), [heaping](#)

**Examples**

```
x <- sri_1987
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Thailand

*The data represent the number of women of reproductive age in Thailand*

---

**Description**

The function provides the number of women of reproductive age 15-49 in Thailand based on the demographic health survey of 1987.

**Usage**

```
thai_1987
```

**Arguments**

thai\_1987      A vector of (non-negative) count values.

**Details**

Based on the demographic health survey of 1987, the function gives the number of Thai women in the reproductive age range of 15 to 49.

**Value**

sri\_1987 gives gives the number of women of reproductive age 15-49 in Thailand.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

Chayovan, Napaporn, Peerasit Kamnuansilpa, and John Knodel. 1988. Thailand Demographic and Health Survey 1987. Columbia, Maryland, USA: Institute of Population Studies/Thailand and Institute for Resource Development- IRD/Westinghouse.

**See Also**

[sri\\_1987](#), [heaping](#)

**Examples**

```
x <- thai_1987
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Timor-Leste

*The data represent the number of women of reproductive age in Timor-Leste*

---

**Description**

The function provides the number of women of reproductive age 15-49 in Timor-Leste based on the demographic health survey of 2009 and 2016.

**Usage**

```
timor_2016
timor_2009
```

**Arguments**

timor_2016	A vector of (non-negative) count values.
timor_2009	A vector of (non-negative) count values.

**Details**

According to the demographic health surveys from 2009 and 2016, the function gives the number of women in Timor-Leste between the ages of 15 and 49.

**Value**

timor\_2009 and timor\_2016 give the number of women of reproductive age 15-49 in Timor-Leste.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

General Directorate of Statistics (GDS), Ministry of Health and ICF. 2018. Timor-Leste Demographic and Health Survey 2016. . Dili, Timor-Leste Rockville, Maryland, USA: GDS and ICF.

National Statistics Directorate (NSD) [Timor-Leste], Ministry of Finance [Timor-Leste], and ICF Macro. 2010. Timor-Leste Demographic and Health Survey 2009-10. Dili, Timor-Leste: NSD [TimorLeste] and ICF Macro.

**See Also**

[nep\\_2016](#), [mal\\_2016](#), [heaping](#)

**Examples**

```
x <- timor_2016
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Turkey

*The data represent the number of women of reproductive age in Turkey*

---

**Description**

The function provides the number of women of reproductive age 15-49 in Turkey based on the demographic health survey of 2013, 2008, 2003, 1998 and 1993.

**Usage**

```
turkey_2013
turkey_2008
turkey_2003
turkey_1998
turkey_1993
```



**Arguments**

turkey_2013	A vector of (non-negative) count values.
turkey_2008	A vector of (non-negative) count values.
turkey_2003	A vector of (non-negative) count values.
turkey_1998	A vector of (non-negative) count values.
turkey_1993	A vector of (non-negative) count values.

**Details**

In accordance with the demographic health surveys from 2013, 2008, 2003, 1998, and 1993, the function gives the number of Turkish women in the reproductive age range of 15 to 49.

**Value**

turkey\_1993, turkey\_1998, turkey\_2003, turkey\_2008 and turkey\_2013 the number of women of reproductive age 15-49 in Turkey

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

Hacettepe University Institute of Population Studies (2014), “2013 Turkey Demographic and Health Survey”. Hacettepe University Institute of Population Studies, T.R. Ministry of Development and TÜBİTAK, Ankara, Turkey.

Hacettepe University Institute of Population Studies (2009) Turkey Demographic and Health Survey, 2008. Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, T.R. Prime Ministry Undersecretary of State Planning Organization and TUBITAK, Ankara, Turkey.

Hacettepe University Institute of Population Studies, Turkey Demographic and Health Survey, 2003. Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, State Planning Organization and European Union. Ankara, Turkey.

Hacettepe University Institute of Population Studies, Turkey Demographic and Health Survey, 1998. Hacettepe University Institute of Population Studies, Ministry of Health General Directorate of Mother and Child Health and Family Planning, State Planning Organization and European Union. Ankara, Turkey.

Ministry of Health [Turkey], Hacettepe University Institute of Population Studies, and Macro International Inc. 1994. Turkish Demographic and Health Survey 1993. Ankara, Turkey.

**See Also**

[phil\\_2013](#), [yemen\\_2013](#), [heaping](#)

**Examples**

```
x <- turkey_2013
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Vietnam

*The data represent the number of women of reproductive age in Vietnam*

---

**Description**

The function provides the number of women of reproductive age 15-49 in Vietnam based on the demographic health survey of 2005, 2002 and 1997.

**Usage**

```
viet_2005
viet_2002
viet_1997
```

**Arguments**

viet_2005	A vector of (non-negative) count values.
viet_2002	A vector of (non-negative) count values.
viet_1997	A vector of (non-negative) count values.

**Details**

Given the results of the demographic health surveys from 2005, 2002, and 1997, the function gives the number of Vietnamese women in the reproductive age range of 15 to 49.

**Value**

viet\_1997, viet\_2002 and viet\_2005 give the number of women of reproductive age 15-49 in Vietnam.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

## References

General Statistical Office (GSO), National Institute of Hygiene and Epidemiology (NIHE) [Vietnam] and ORC Macro. 2006. Vietnam Population and AIDS Indicator Survey 2005. Calverton, Maryland, USA: GSO, NIHE, and ORC Macro.

Committee for Population, Family and Children [Vietnam], and ORC Macro. 2003. Vietnam Demographic and Health Survey 2002. Calverton, Maryland, USA: Committee for Population, Family and Children and ORC Macro.

Committee for Population, Family and Children [Vietnam], and ORC Macro. 1999. Vietnam Demographic and Health Survey 1997. Calverton, Maryland, USA: Committee for Population, Family and Children and ORC Macro.

## See Also

[india\\_2005](#), [camb\\_2005](#), [armen\\_2005](#), [heaping](#)

## Examples

```
x <- viet_2005
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 15, 49)
```

---

Whipple's index

*Whipple's index calculation for reproductive-age females*

---

## Description

The function provides the Whipple's index of females 15 to 49 years old who are in reproductive age with data quality.

## Usage

```
heaping(x, a, b)
```

## Arguments

x	a data vector of females, aged 15 to 49 year.
a	Choose the starting age for the calculation of Whipple's index.
b	Choose the ending age for the calculation of Whipple's index.

## Details

Whipple's index can be computed by the following formula

$$WI = \left( \frac{P_{25} + P_{30} + P_{35} + \dots + P_{60}}{P_{23} + P_{24} + P_{25} + \dots + P_{62}} \right) \times 500$$

where P represents the population of reported age in completed year. There are 5 categories for the index value, ranging from very rough to highly accurate. Data is classified as being very rough (if  $WI > 175$ ), rough ( $125 < WI < 175$ ), approximate ( $110 < WI < 125$ ), accurate ( $105 < WI < 110$ ) and highly accurate ( $WI < 105$ ).

## Value

heaping computes the Whipple's index with the quality of age reporting.

## Author(s)

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoor84@yahoo.com>.

## References

Yadav, A., Vishwakarma, M., and Chauhan, S. (2020). The quality of age data: Comparison between two recent Indian censuses 2001–2011. *Clinical Epidemiology and Global Health*, 8(2), 371-376.

## See Also

[afgan\\_2015](#), [india\\_2015](#)

## Examples

```
x <- armen_2015
# starting age 23 and ending age 62
heaping(x, 23, 62)
# starting age 15 and ending age 49
heaping(x, 23, 62)
```

---

Yemen

*The data represent the number of women of reproductive age in Yemen*

---

## Description

The function provides the number of women of reproductive age 15-49 in Yemen based on the demographic health survey of 1991 and 2013.

**Usage**

```
yemen_2013  
yemen_1991
```

**Arguments**

yemen_2013	A vector of (non-negative) count values.
yemen_1991	A vector of (non-negative) count values.

**Details**

Following demographic health surveys conducted in 1991 and 2013 for Yemen, the function gives information on women between the ages of 15 and 49 who are fertile.

**Value**

yemen\_1991 and yemen\_2013 give the number of women of reproductive age 15-49 in Yemen.

**Author(s)**

Muhammad Imran

R implementation and documentation: Muhammad Imran <imranshakoar84@yahoo.com>.

**References**

Ministry of Public Health and Population (MOPHP), Central Statistical Organization (CSO) [Yemen], Pan Arab Program for Family Health (PAPFAM), and ICF International. 2015. Yemen National Health and Demographic Survey 2013. Rockville, Maryland, USA: MOPHP, CSO, PAPFAM, and ICF International.

Central Statistical Organization (CSO) [Yemen] and Pan Arab Project for Child Development (PA-PCHILD)[Egypt] and Macro International Inc.(MI). 1994. Yemen Demographic and Maternal and Child Health Survey 1991/1992. Calverton, Maryland: CSO and MI.

**See Also**

[phil\\_2013](#), [heaping](#)

**Examples**

```
x <- yemen_2013  
# starting age 23 and ending age 62  
heaping(x, 23, 62)  
# starting age 15 and ending age 49  
heaping(x, 15, 49)
```

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