# Factors Risk Incident Primary Hypertension in Communities in Working Areas Public Health Center Medan Marelan Year 2022 

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#### Abstract

High blood pressure or hypertension (Hypertension) is a condition where a person experiences an increase in blood pressure above normal as indicated by systolic numbers and diastolic numbers on blood pressure checks using blood pressure gauges either in the form of mercury cuffs (sphygmomanometers) or instruments other digital. This study is a descriptive study with a cross-sectional approach (cross-sectional study), where this study aims to determine the description of risk factors for Primary Hypertension in the working area. Age distribution showed that as many as 47 respondents (50\%) patients with primary hypertension were in the middle age category (45-59 years). Based on the results of data analysis the most dominant sex was female with a total of 61 ( $64.9 \%$ ), Based on the analysis of family history data, the more dominant family history with a history of hypertension was $48(51.1 \%)$. Based on the analysis of salt consumption data, it was found that hypertensive patients who frequently consumed salt amounted to $80(85.1 \%)$. consumption of fatty foods found that hypertensive patients who often consume fatty foods amounted to 59 ( $62.8 \%$ ), Based on the results of data analysis smoking history found that hypertensive patients who smoke amounted to 22 ( $23.4 \%$ ), Based on the results of physical activity data analysis found that patients who enough physical activity totaling $54(23.4 \%)$, Based on the results of the analysis of the status data $g$ izi found that patients with $\mathrm{BMI} \geq 30$ totaled 19 (20.2\%), while hypertensive patients with BMI $<30$ totaled 75 (79.8\%)


## Keywords:

Hypertension, Risk Factor, Working Area
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## 1. INTRODUCTION

Disease blood tall or hypertension is something circumstances where somebody experience enhancement pressure blood above normal indicated by numbers systolic and numbers diastolic on examination tension blood use tool gauge pressure blood good in the form of a mercury cuff (sphygmomanometer) or other digital tools [27]

According to WHO (World Health Organization) in 2013 showed that there were 9.4 million people out of 1 billion people in the world who died from cardiovascular system disorders. The prevalence in developed countries is $35 \%$ and in developing countries it is $40 \%$ of the adult population. It is estimated that by 2025 cases of hypertension, especially in developing countries, will increase by $80 \%$, this prediction is based on the number of people with hypertension and the current population increase.

Hypertension is one disease no become contagious problem health important worldwide because high prevalence by $22 \%$ in the group age $\geq 18$ years in 2014 and on increases, as well relationship with disease cardiovascular disease, stroke, retinopathy, and disease kidney. Hypertension also becomes factor risk third biggest reason Dead early. How no, hypertension is frequent conditions found in service health primary. Hal that is problem health with high prevalence [28].

## 2. METHOD

Study this is study descriptive with approach cross-sectional (study cut latitude), where study this aim for knowing description factor risk Primary Hypertension in the working area of Public Healt Center Medan Marelan

Year 2022. On research this approach or data collection is carried out in a manner simultaneous or in same time (point time approach).

## 3. RESULTS AND DISCUSSION

## RESULTS

Table 1
Distribution Frequency Respondents based on Age at Public Healt Center Fall

| Category Age | Total | Percentage |
| :--- | :--- | :--- |
| Early Adult <br> $(25-34$ Years ) | 17 | 18.1 |
| Late Adult <br> (35-44 Years ) | 30 | 31.9 |
| Age Mid <br> (45-59 Years ) | 47 | 50 |
| Total | $\mathbf{9 4}$ | $\mathbf{1 0 0}$ |

Based on table 1 distribution age show that as many as 47 respondents (50\%) sufferers Primary hypertension is in the category age mid (45-59 Years)

Table 2
Distribution Frequency Respondents based on Type Gender at Public Healt Center Fall

| Type Sex | Amount | Percentage |
| :--- | :--- | :--- |
| Man | 33 | 35.1 |
| Woman | 61 | 64.9 |
| Total | $\mathbf{9 4}$ | $\mathbf{1 0 0}$ |

on variables type sex consists from one question, contained in the respondent 's data, variable type sex classified Becomes two , ie Boys and Girls.Based on results type data analysis the most dominant sex is type female genitalia with total 61 (64.9\%).

Table 3
Distribution Frequency Respondents Based on Family History at Public Healt Center Fall
Family History
There is
None 46
Total
$\longrightarrow \quad 94$

Based on results historical data analysis family, which is more dominant is history family that has history hypertension a number of 48 (51.1\%).

Table 4
Distribution Frequency Respondents based on salt consumption in Public Healt Center Fall

| Consumption | Total Salt | Percentage |
| :--- | :--- | :--- |
| Often | 80 | 85.1 |
| Currently | 14 | 14.9 |
| Total | $\mathbf{9 4}$ | $\mathbf{1 0 0}$ |

Based on results analysis of salt consumption data obtained that patient frequent hypertension consuming salt amounted to $80(85.1 \%)$, meanwhile patient hypertension who consume salt with moderate frequency amounted to 14 (14.9\%)

Table 5
Distribution Frequency Respondents based on consumption food at the Public Healt Center Fall

| Consumption | Total Fat | Percentage |
| :--- | :--- | :--- |
| Often | 59 | 62.8 |
| Currently | 35 | 37.2 |
| Total | $\mathbf{9 4}$ | $\mathbf{1 0 0}$ |

Based on results analysis of consumption data food fatty obtained that patient frequent hypertension consume food fatty amounted to 59 ( $62.8 \%$ ), meanwhile patient consuming hypertension food fatty with frequency currently amounted to 35 (37.2\%)

Table 6
Distribution Frequency Respondents based on history smoking in Public Healt Center Fall

| Smoking History | Amount | Percentage |
| :--- | :--- | :--- |
| Smoke | 22 | 23.4 |
| Not smoking | 72 | 76.6 |
| Total | $\mathbf{9 4}$ | $\mathbf{1 0 0}$ |

Based on results smoking history data analysis obtained that patient smoking hypertension amounted to 22 (23.4\%), meanwhile patient hypertension which is not smoke amounted to 72 (76.6\%)

Table 7
Distribution Frequency Respondents based on activity physical education at Public Healt Center Fall

| Activity Physique | Amount | Percentage |
| :--- | :--- | :--- |
| Enough | 54 | 57.4 |
| Not Enough | 40 | 42.6 |
| Total | $\mathbf{9 4}$ | $\mathbf{1 0 0}$ |

Based on results activity data analysis physique obtained that active patients physique enough amounted to 54 ( $23.4 \%$ ), meanwhile patient less hypertension activity physique amounted to 40 ( $42.6 \%$ )

Table 8
Distribution Frequency Respondents based on Nutritional Status at Public Healt Center Fall

| Nutrition | Status Total | Percentage |
| :--- | :--- | :--- |
| BMI $\geq 30$ | 19 | 20.2 |
| BMI $<30$ | 75 | 79.8 |
| Total | $\mathbf{9 4}$ | $\mathbf{1 0 0}$ |

Based on results nutritional status data analysis obtained that patient with BMI $\geq 30$ amounted to 19 (20.2\%), meanwhile patient hypertension with BMI < 30 amounted to 75 (79.8\%)

## DISCUSSION

## 1. Distribution type gender of respondents at Public Healt Center Fall

Based on results study show that presentation incident hypertension more many happens to women than man.
Research results this in line with statement [28]. That stated that prevalence hypertension more tall exist in women.

## 2. Distribution age of the respondents at Public Healt Center Fall

Based on results Analysis obtained that more dominant Age middle (45-59 years). this result in line with statement [16] that state The age factor is very influential on hypertension because with increasing age the risk of hypertension becomes higher

## 3. Distribution history family to respondents at the Public Healt Center Fall

Based on results Analysis obtained that history family with hypertension amounted to 48 ( $58.2 \%$ ), meanwhile history family with no hypertension a number of 46 ( $48.9 \%$ ). this result in line with statement [27] stating Individuals with a family history of non-communicable diseases are more likely to suffer from the same disease

## 4. Distribution salt consumption in respondents at Public Healt Center Fall

Based on results Analysis obtained that history consumption of salt with hypertension more dominant with number $80(85.1 \%)$. Research results this in line with statement [19] stating that people are sensitive to sodium more easy binds sodium so raises retention fluid and increase pressure blood

## 5. Distribution consumption of fat in respondents at Public Healt Center Fall

Based on results analysis obtained that history consumption food fatty with incident hypertension more dominant with total $59(62.8 \%)$. Results study this in line with statement [9] stated The habit of consuming saturated fat is closely related to increased body weight which is at risk of developing hypertension

## 6. Distribution of smoking among respondents at Public Healt Center Fall

Based on results analysis obtained that history smoke with incident hypertension amounted to 22 ( $23.4 \%$ ). And sufferers hypertension which is not smoke amounted to 72 ( $76.6 \%$ ). The results of the study [18] smoking is one of the factors associated with hypertension, because cigarettes contain nicotine. Inhaling cigarettes causes nicotine to be absorbed by small blood vessels in the lungs and then circulated to the brain. In the brain, nicotine will signal the adrenal glands to release epinephrine or adrenaline which will constrict blood vessels and force the heart to work harder due to higher blood pressure

## 7 . Activity distribution physical condition of respondents at the Public Healt Center Fall

Based on results analysis obtained that respondent with history activity enough physique with incident hypertension amounted to $54(57.4 \%)$. And sufferers hypertension with activity less physically amounted to 40 ( $42.6 \%$ ). Physical activity greatly affects the stability of blood pressure. People who are not physically active tend to have a higher heart rate. This causes the heart muscle to work harder with each contraction. The harder the heart muscle tries to pump blood, the greater the pressure that is imposed on the arterial walls, thereby increasing peripheral resistance which causes an increase in blood pressure. [9].

## 8. Status Distribution Nutrition in respondents at Public Healt Center Fall

Based on results analysis obtained that respondent with obesity with incident hypertension amounted to 19 (20.2\%). Whereas sufferer hypertension more Big present in patients who do not obesity a number of 75 ( $79.8 \%$ ). Study this there is gap Among theory with statistical test results, where according to the theory put forward by [9], obesity increases the risk of hypertension for several reasons. In hypertensive patients found $20-30 \%$ suffering from excess body weight

## 4. CONCLUSION

Based on results obtained From this study the risk factors for primary hypertension at the 2022 PHC in the 2022 Falls, the following conclusions can be drawn:

1. Based on the age group in this study, the majority of respondents were 13 respondents ( $13.8 \%$ ) sufferers 42 year old primary hypertension.
2. Based on gender, in this study, the majority of respondents were women, 61 respondents ( $64.9 \%$ ).
3. Based on historical data family, in this study which is more dominant is history family that has history hypertension a number of 48 respondents ( $51.1 \%$ ).
4. Based on salt consumption data, this study found that patient hypertension the more dominant is often consuming salt amounted to 80 respondents ( $85.1 \%$ ),
5. Based on consumption data food fatty, in this study found that patient hypertension predominates frequently consume food fatty amounted to 59 people ( $62.8 \%$ ).
6. Based on smoking history data, in this study obtained that patient smoking hypertension amounted to 22 respondents $(23.4 \%)$, meanwhile patient hypertension which is not smoke amounted to 72 respondents (76.6\%) .
7. Based on activity A data physical, in this study found that active patients physique quite a number of 54 respondents (23.4\%), meanwhile patient less hypertension activity physique amounted to 40 respondents (42.6\%).
8. Based on nutritional status data, in this study obtained that patient with BMI $\geq 30$ totaling 19 respondents (20.2\%), meanwhile patient hypertension with BMI <30 totaling 75 respondents ( $79.8 \%$ ).

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## REFERENCES

[1] Sheldon G. Sheps. Mayo Clinic Hypertension (Translation). Jakarta: Digest Mediatama; 2005. p: 26, 158.
[2] Barbara Wexler. Encyclopedia of Nursing and Alied Health [internet]. c2002 [cited 2011 Oct 7]. Available from: http://symptomchecker.aarp.org/
[3] Brashers, Valentina. 2004. Application Clinical Pathophysiology : Examination \& Management , Ed 2 ( Translation ). Publisher Book EGC Medicine. Jakarta.
[4] Anggraini, et al. Related Factors with Incident Hypertension in Patients Treated at the Polyclinic Mature Public health center Bangkinang Period January until June 2008 [internet]. c2009 [cited 2011 Oct 7]. Available from: http://yayanakhyar.files.wordpress.com/2009/
[5] Wise Mansjoer, et al . Capita Select Medical Volume I : Nephrology and Hypertension . Jakarta: Media Aesculapius FKUI; 2001. p: 519-520.
[6] Hendi . Hypertension and Rosella [internet].c2008 Feb 21 [cited 2011 Oct 7]. Available from: http://rohaendi.blogspot.com/2008/02/hiertensi-dan-rosella.html
[7] M. Yogiantoro . Hypertension Essential . Jakarta: Department Knowledge Disease In FKUI; 2006. p: 599601.
[8] Leny Gunawan . Hypertension: Pressure blood high. Yogyakarta: Printing canisus; 2001.
[9] Aris Sugiarto. factors Risk Grade II Hypertension in Society (Study Cases in the District Karanganyar) [internet]. c2007 [cited 2011 Oct 7]. p: 29-50, 90-126. Available from: http://eprints.undip.ac.id
[10] Nurlaely Fitriana. Hypertension in the Elderly [internet]. c2010 [cited 2011 Nov 18]. Available from: http://nurlaelyn07.alumni.ipb.ac.id/author/
[11] EJ Corwin. Book Pocket Pathophysiology (Translation ) [monograph online]. Jakarta: EGC; 2001 [cited 2011 Nov 24]. p: 694. Available from: http://books.google.com/books/
[12] Sutin Saleh. Connection Among Habit Smoke with Incident Hypertension in Patients in the Inpatient Room at MM Dunda Hospital Limboto Gorontalo District 2009 [internet] . c2010 [cited 2011 Nov 22]. p: 10-40. Available from: http://dc252.4shared.com/doc/4ce64UhQ/preview.html.
[13] I Made Astawan . prevent Hypertension with pattern eat. IPB [internet]. c2011 [cited 2011 Nov 22]. Available from: http://indonesiamedia.com/
[14] Adriansyah. Analysis Related Factors with Disobedient Patient Sufferer Hypertension in Outpatients at H. Adam Malik General Hospital Medan [internet]. c2010 [cited 2011 Nov 22]. p: 9-16. Available from: http://repository.usu.ac.id/
[15] Chris O'Callaghan. At a Glace: System Kidneys ( Translation ). Jakarta: Publisher Erlangga; 2010. p: 7880. 28. HH Gray, K. D.Dawkins, JMMorgan, IA Simpson, Cardiology : Lecture Notes Ed 4 ( Translation ). Jakarta: Publisher Erlangga ; 2005.
[16] Angie Hanifa . Prevalence Hypertension As Reason Disease Kidney Chronicle in the Hemodialysis Unit of H.Adam Malik General Hospital, Medan, 2009 [internet]. c2010 [cited 2011 Nov 22]. p: 4-13. Available from: http://repository.usu.ac.id/
[17] Kaplan M. Norman. Measurement of Blood Pressure and Primary Hypertension: Pathogenesis in Clinical Hypertension: Seventh Edition. Baltimore, Maryland USA: Williams \& Wilkins; 1998. p: 28-46.
[18] Lam Murni BR Sagala. Care Sufferer Hypertension at Home by Family Batak Tribes and Tribes Javanese in Lau Cimba Village Kabanjahe [internet]. c2011 [cited 2012 Feb 9]. p: 10-13. Available from: http://repository.usu.ac.id/
[19] Mayo Clinic staff. High Blood Pressure (Hypertension) [internet]. c2012 Jan [cited 2012 Jan 29]. Available from: http://www.mayoclinic.com/health/highblood-pressure/risk-factors/ 36. Adhil Basha. Hypertension : Factor Risk and Management Hypertension [internet]. c2008 [cited 2011 Nov 26]. Available from: http://pjnhk.go.id/
[20] Effendi Sianturi . Prevention Strategy Hypertension essential Through Approach Factor The risk at RSU dr. Pirngadi Medan City [internet]. c2004 [cited 2011 Nov 26]. p: 10-64, 91. Available from: http://repository.usu.ac.id/
[21] Alison Hull. Disease Heart, Hypertension, and Nutrition. New York: Earth Script ; 1996. p: 18-29.
[22] Krzysztof Narkiewicz. Obesity and Hypertension [internet]. c2005 [cited 2011 Dec 26]. Available from: http://ndt.oxfordjournals.org.
[23] Ashwini Ambekar. Hypertensive Cardiovascular Disease [internet]. c2008 [cited 2011 Dec 24]. Available from: http://www.articleswave.com/
[24] Franklin W. Lusby, David Zieve. Hypertensive Retinopathy [internet]. c2010 [cited 2011 Dec 27]. Available from: http://www.nlm.nih.gov/medlineplus/ency/
[25] Bramius Mikail and Asep Candra. Cara Easy lower it Blood Pressure [internet]. c2011 [cited 2012 Feb 19]. Available from: http://health.kompas.com/
[26] Alhumairoh. The Natural Way Lower Blood Pressure [internet]. c2012 Feb 2 [cited 2012 Feb 29]. Available from: http://alhumairoh.wordpress.com/health/
[27] Shadine M, 2010, Getting to Know Disease Hypertension, Diabetes, Stroke, PT. Gramedia, Jakarta.
[28] Ministry of Health . 2014. Basic Health Research (RISKESDAS) 2014. Jakarta: Indonesian Ministry of Health. ( accessed 27 June 2019). Infodata hypertension . Jakarta: Indonesian Ministry of Health. ( accessed 27 June 2019). Profile Indonesia Health 2018. Jakarta: Indonesian Ministry of Health. ( accessed December 28 , 2019).
[29] Siregar, Rahmah. (2022). Factors Which Influence Incident Hypertension on Pre-Elderly. International Journal of Public Health Excellence (IJPHE). 1. 117-121. 10.55299/ijphe.v1i2.66.

