

# Beliefs and Factors Associated with Intentions to Initiate Antihypertensive Medications

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## Introduction

- Primary nonadherence (PMN) constitutes a problem for all stakeholders.
- Why consider PMN to antihypertensives?
- ✓ High prevalence of hypertension.
- ✓ Economic and humanistic burden.
- ✓ Substantial benefits of treatment initiation.



## Study Objectives

- This study aimed to evaluate factors that predict intentions to initiate antihypertensive medications and
- To rank the predictors in terms of relative importance.

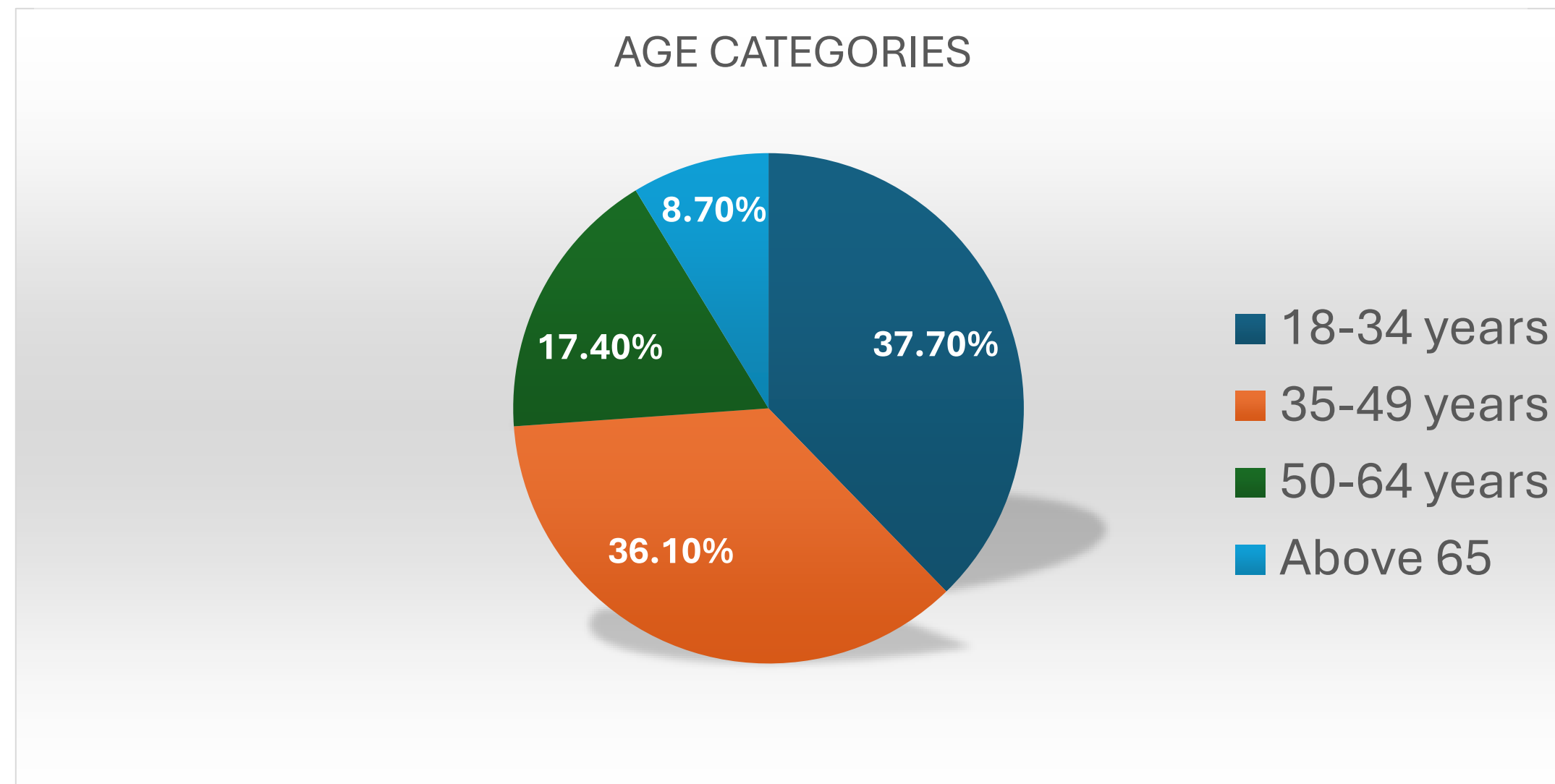
## Methods

- This was a vignette-based, cross-sectional survey.
- Utilized an online sample of adult participants who have not yet initiated antihypertensive medications.
- Constructs from the Health Belief Model and the Theory of Planned Behavior were used to identify predictors of intentions to initiate antihypertensive medications.
- Multivariable linear regression was used to evaluate the associations between predictors and intentions.
- Relative weight analysis was used to rank the predictors.

## Results

- Measurement scales used exhibited good to excellent reliability (Cronbach's alphas ranged from 0.73-0.92).
- Among 941 participants (average age of 41.3 years; 67% with at least one chronic health condition; 75% female), two models were examined: model 1 comprised of twelve background and demographic predictors accounted for 8% of the variation in intentions, while model 2 with seven additional theory-based predictors explained an additional 65%.

**Figure 1: Demographics by age**



**Table 1: Overall Regression**

	Model 1	Model 2	Change
Number of predictors	12	19	7
R-squared	0.08	0.73	0.65
Adjusted R-squared	0.07	0.72	0.65
Degree of freedom	928	921	7
F-value	6.96	129.89	312.61
P-value	<.001	<.001	<.001

## Results Cont'd

- Overall, Attitudes (unstandardized coefficient (B)=0.21, standardized coefficient ( $\beta$ )=0.17,  $p<.001$ ), Subjective Norms (B=0.41,  $\beta$ =0.40,  $p<.001$ ), Perceived Behavioral Control (B=0.32,  $\beta$ =0.33,  $p<.001$ ), and Perceived Severity (B=0.12,  $\beta$ =0.08,  $p<.001$ ) had significant positive relationships with intentions.
- Perceived Barriers (B=-0.14,  $\beta$ =-0.12,  $p<.001$ ) had a significant negative relationship, while Perceived Benefits (B=0.05,  $\beta$ =0.04,  $p=0.12$ ) and Perceived Susceptibility (B=0.01,  $\beta$ =0.01,  $p=0.61$ ) had non-significant relationships.

**The most influential predictors were subjective norms (30.8% of the explained variance), perceived behavioral control (26.0%), and attitudes (17.2%).**

**Table 2: Regression Coefficients**

	B	SE	$\beta$	t-value	P-value
Attitude	0.21	0.04	0.17	5.87	<.001
Perceived Severity	0.12	0.03	0.08	4.27	<.001
Perceived Barrier	-0.14	0.02	-0.12	-6.23	<.001
Perceived Benefit	0.05	0.03	0.04	1.58	0.12
Perceived Susceptibility	0.01	0.03	0.01	0.52	0.61
Subjective Norm	0.41	0.02	0.40	16.99	<.001
Perceived Behavioral Control	0.32	0.02	0.33	14.41	<.001

B = Unstandardized coefficient; SE = Standard error;  $\beta$  = Standardized coefficient.

**Table 3: Relative Weights**

	RW	CI-L	CI-U	RS-RW(%)
Attitude	0.13	0.11	0.14	17.17
Perceived Severity	0.03	0.02	0.05	4.71
Perceived Barrier	0.04	0.02	0.05	4.96
Perceived Benefit	0.06	0.05	0.08	8.62
Perceived Susceptibility	0.02	0.00	0.02	2.07
Subjective Norm	0.22	0.20	0.26	30.84
Perceived Behavioral Control	0.19	0.16	0.22	26.04

RW = Raw relative weight; CI-L = Lower bound of confidence interval; CI-U = Upper bound of confidence interval; RS\_RW = Rescaled relative weights.

## Conclusion

- Tailored approaches are needed to help patients make appropriate medication use decisions.
- Amid scarce resources, targeting interventions towards the most influential predictors could result in cost savings for all stakeholders through decreased hospitalization, enhanced productivity, improved quality of life, and better health outcomes.

## Reference

- Mazor KM, Fischer MA, Billings-Gagliardi S. Initial acceptance of treatment with antihypertensive medication: The importance of communication, trust and beliefs. Journal of Communication in Healthcare. 2008;1(3):311-323. doi:10.1179/cih.2008.1.3.311