



# **Predictors of distractive activities walking in Accra, Ghana**

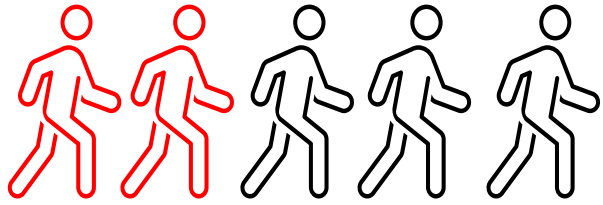
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ICTCT Conference Winneba

# Introduction

- Walking is a fundamental mode of transport
- Immense health and environmental benefits
- Increased walking = increased risk of road traffic crashes



# Introduction Cont'd



2 out of 5 killed are neither travelling in a car or on a motorcycle

- Disaggregations presents a much darker image for Africa
- 22% (US), 27% (Europe) and Africa (40%) of pedestrians casualties (WHO, 2018)
- In Ghana, 38.9% of pedestrians are annually involved in road traffic crashes (BRRI, 2020).



# Introduction Cont'd

- Not all about the presence of sidewalks or traffic enforcement
- Risky in-traffic walking behaviour heightens pedestrian's risk of injuries.
- Plethora of evidence exists on driver distraction leaving behind a dread of evidence of pedestrian distraction (WHO, (2011:2013), Elvik et al. (2009), Jacobsen (2003))
- This study offers important insights into distractive walking in an urban environment and policy-relevant interventions for targeting distracted walking.



# Method and Setting

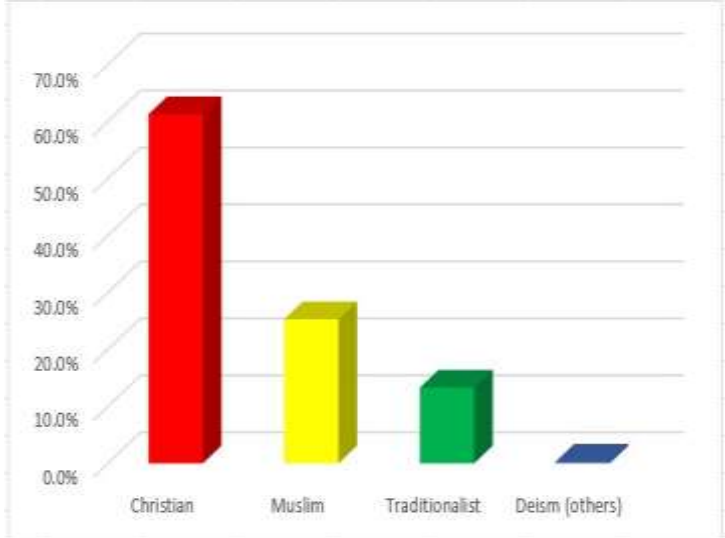
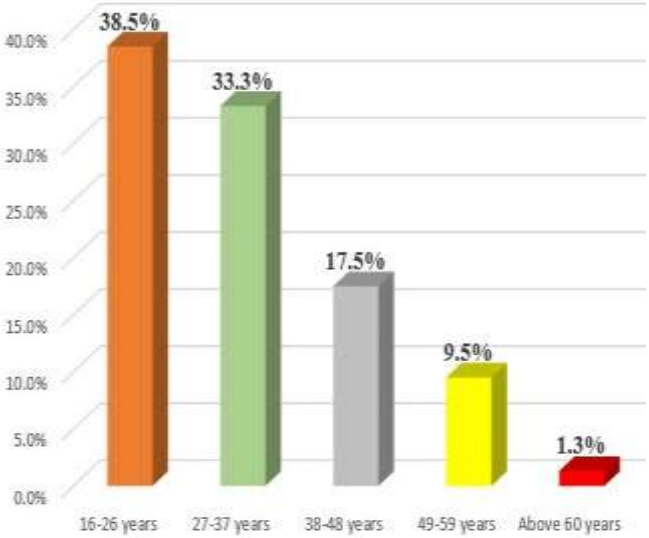
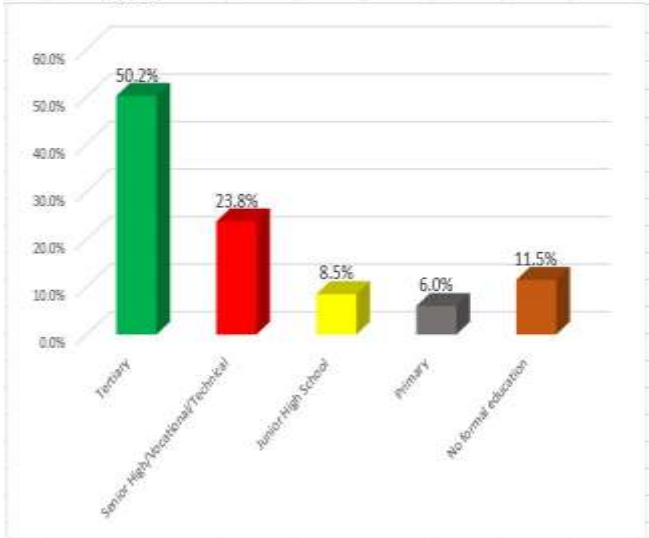
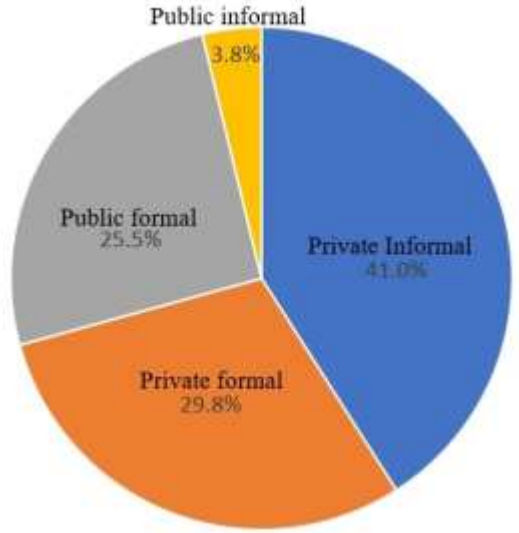
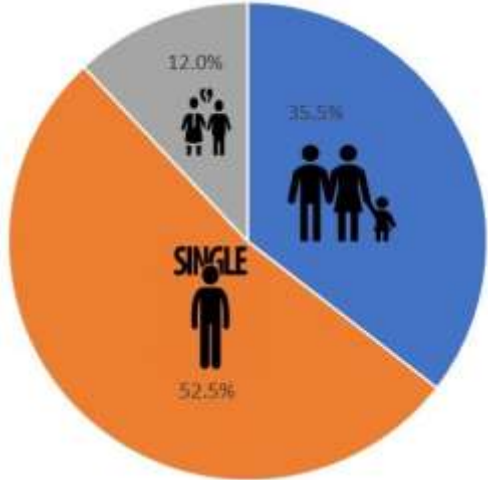
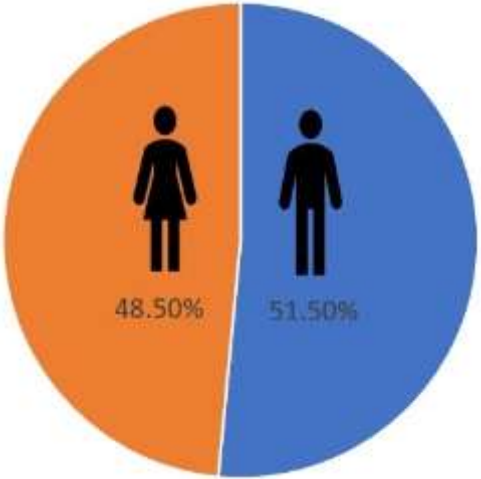
- The study setting was in CBD (Accra)
  - ✓ 57.6% of the Greater Accra's pedestrian injuries
  - ✓ A top 5 crash-prone city in Ghana
- Pedestrians above 16 years
- Conveniently sampled from shopping malls
  - ✓ Melcom plaza
  - ✓ Rawlings park
  - ✓ Despite stores
  - ✓ SIC Mall.
  - ✓ Lava Mall
- Using Miller & Brewer's (2003), 400 people were engaged for the study
- Questionnaire was deployed Kobo Toolbox



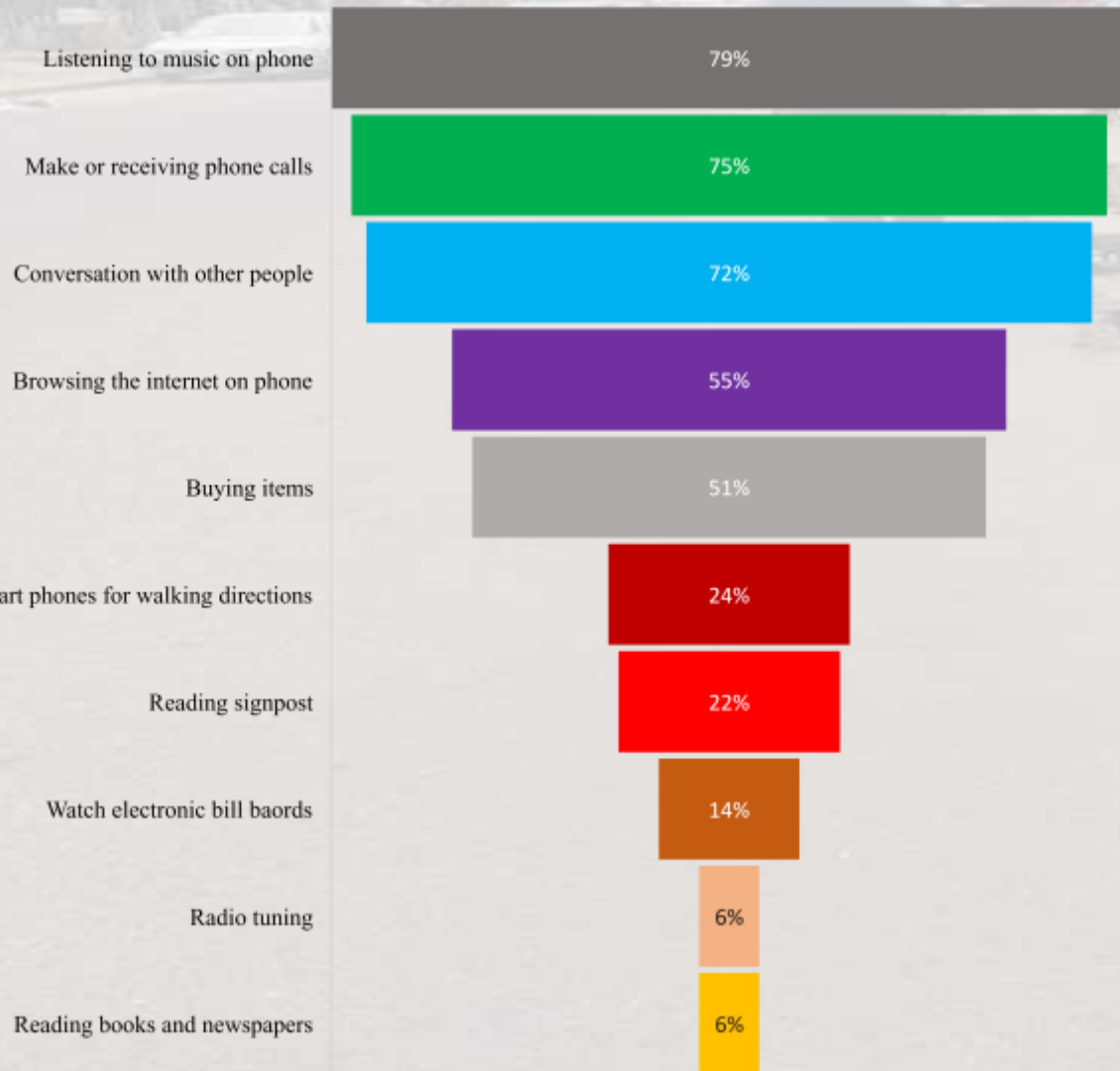
# Setting and Method

- The questionnaire had three sections
  - ✓ Socio-demographic characteristics
  - ✓ Ranking of distractive walking activities
  - ✓ The extent of engagement in distractive activities to walking
- SPSS and Jamovi
  - ✓ The Binary logistic regression model (11 independent variables: age, sex, marital status, religion, level of education and occupation)
  - ✓ The output was presented as Odds Ratio (O.R.) using a 95% Confidence Interval (CI).

# Profile of respondents



# *Ranking of distractive activities to walking*



- 3 of the Top 4 entails digital technology

- Last 3 items projects seldomly engaged activities



# Binary logistic regression analysis on pedestrians' engagement in distractive activities to walking

➤ Cronbach alpha ( $\alpha$ ) = 0.737

➤ Module summary

✓ The overall model was statistically significant,  $\chi^2(26, N=400)=218, p < .001$

✓ 7 independent variables (sex, age, level of education, occupation, reasons for walking, weekly time spent walking and walking time for common trips) significantly

Variable	p	Odds ratio	95% Confidence Interval	
			Lower Limit	Upper Limit
<b>Gender:</b>				
Female	Ref			
<b>Male</b>	<b>&lt; .001**</b>	<b>2.503</b>	<b>1.567</b>	<b>3.998</b>
<b>Age category</b>				
16-26 years	Ref			
27-37 years	0.968	1.012	0.5715	1.791
<b>38-48 years</b>	<b>&lt; .001**</b>	<b>4.894</b>	<b>1.9405</b>	<b>12.342</b>
49-59 years	0.179	1.646	0.7958	3.406
Above 59 years	0.86	0.805	0.0729	8.896
<b>Education</b>				
No formal education	Ref			
Primary	0.248	0.41	0.08949	1.8649
Junior High School	0.201	2.65	0.59425	11.8465
Senior High School	<b>0.044*</b>	<b>4.56</b>	<b>1.04373</b>	<b>19.9062</b>
Tertiary	0.700	1.28	0.37090	4.3830
<b>Occupation</b>				
Private Informal	Ref			
Private formal	0.590	0.62	0.11037	3.5025
Public informal	<b>&lt; .001**</b>	<b>13.29</b>	<b>16.59522</b>	<b>104.3168</b>
Public formal	<b>&lt; .001**</b>	<b>0.00</b>	<b>1.87e-4</b>	<b>0.0664</b>

Variable	p	Odds ratio	95% Confidence Interval	
			Lower Limit	Upper Limit
<b>Reasons for walking</b>				
Daily commuting	Ref			
Short trip to a specific point in the city	0.966	0.97	0.24919	3.7801
As a part of job routine	<0.001**	13.54	2.93342	62.4720
<b>Time spent walking (Weekly)</b>				
1-5 hours	Ref			
6-10 hours	< .001**	0.01	0.00153	0.0506
11-15 hours	0.087	0.22	0.03924	1.2445
<b>Walking time for common trips</b>				
0-15 minutes	Ref			
16-30 minutes	< .001**	7.04	17.16630	288.4098
31-45 minutes	< .001**	4.22	68.05334	89.0748
46-60 minutes	< .001**	3.05	94.17851	164.8719
<b>Reasons for walking</b>				
Daily commuting	Ref			
Short trip to a specific point in the city	0.966	0.97	0.24919	3.7801
As a part of job routine	<0.001**	13.54	2.93342	62.4720
<b>Time spent walking (Weekly)</b>				
1-5 hours	Ref			
<b>Pseudo R<sup>2</sup></b>	0.419			

# Conclusion

- The study has shown that **sex, age, marital status and level of education** are significant predictors of engagement in distractive activities to walking.
- Respondents who identified as **males, mid aged, with lower educational attainment, informal workers and those with more walking time** were more likely to engage in distractive activities to walking.
- Environmental planning scheme that minimises distractions to pedestrians.
  - The NRSC and AMA should intensify public outreach programmes for safer pedestrians outcome.
  - Additionally, city authorities can also reduce pedestrian distractions by controlling the use of sidewalks for economic activities



Thank you