

GENERATING CONSENSUS ON ROAD SAFETY ISSUES AND PRIORITIES IN GHANA: A MODIFIED DELPHI APPROACH

ICTCT CONFERENCE 2023
ENHANCING TRAFFIC SAFETY: PROSPECTS AND CHALLENGES FOR SAFE SYSTEM APPROACH ON
AFRICAN CONTINENT

INTRODUCTIONS



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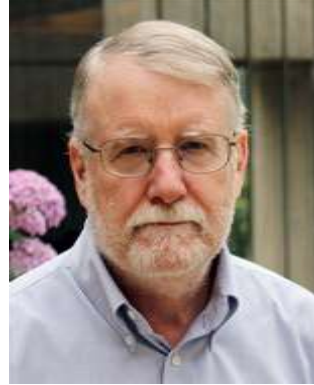
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BACKGROUND

- > Ghana has a substantial and growing problem of road traffic injuries and deaths
 - 7,018 annual deaths (World Health Organization)
 - 27.5 deaths per 100,000 people
- > Road traffic injuries and deaths negatively impact the country's economic growth and development



deaths are among those of economically productive age (15-64)



Reduction in gross domestic product

BACKGROUND

> Most research is in high-income countries

10%

of road safety²
research
occurs in
LMICs

> Interventions that work in high-resource settings do not always translate

> There is a need to understand research priorities and conduct research relevant for the context

RESEARCH GAP

- > In Ghana, literature on expert views is limited
 - > one study of leaders describing implementation issues (e.g., operating in isolation, limited reform efforts, duplication of effort)
 - > another of professionals assessing vulnerable road user priorities using the Safe Systems approach
- > Without understanding stakeholders' perspectives on research, implementation, and evaluation priorities, policies to reduce road traffic injury and death may have limited success

METHODS: THE DELPHI APPROACH

- > We used a modified Delphi process with a multi-disciplinary group of road safety stakeholders
- > The Delphi technique was developed in the 1950s to achieve convergence of expert opinions
 - It allows multiple, iterative surveys in which experts can give feedback and revise their views based on what other experts say
- > The Delphi approach is used widely across disciplines

METHODS: QUESTIONNAIRE

> Our online questionnaire involved the following sections:

Expert Stakeholder Characteristics	Years of road safety experience Sector (i.e., government, academia, etc.)					
Barriers to reaching road safety targets	Likert scale questions: <i>Please indicate how strongly you agree or disagree that this factor contributes to not reaching national road safety targets (e.g., rapid urbanization, lack of funding, etc.)</i>					
Current gaps in road safety research	<i>Please comment on where you think there is a research gap, and therefore, the greatest need to focus research efforts.</i>					
	Types of road users	Types of risk factors	Road risk factors	Road user risk factors	Vehicle risk factors	Post crash care risk factors
Priorities for future research and evaluation	<i>Please comment on existing interventions which could be studied (i.e., effectiveness, future impacts)</i>					
	Pillar 1: road safety management interventions	Pillar 2: Safer roads interventions	Pillar 3: Safer vehicle interventions	Pillar 4: Safer road user interventions	Pillar 5: Post-crash care interventions	
	Open-ended question: <i>Please include a description, location, and dates for specific interventions which should be evaluated</i>					

METHODS: QUESTIONNAIRE

- > We used the five-pillar framework to guide our survey and responses
- > We gave participants an opportunity to provide additional responses through open-ended questions



METHODS: PARTICIPANTS

- > The National Road Safety Authority and the Building and Road Research Institute provided the initial list of experts across government, academia, and implementation organizations
- > To ensure the representation of academic researchers and injury prevention and control specialists, we identified additional participants by reviewing recent (i.e., published in the last five years) road safety publications in Ghana

METHODS: DEFINITIONS

- > We defined consensus as 70% or more people choosing a response
- > Majority was defined as 50% or more people choosing a response



RESULTS: PARTICIPANTS

- 23 experts participated from various sectors

Government – Policy and Enforcement	63.6% (n=14)
Academia – Injury prevention and control	27.3% (n=6)
Academia – Trauma care	9.1% (n=2)
Government – Road construction	9.1% (n=2)
Government – First response	4.5% (n=1)
Years of road safety experience (n=23)	Mean 11.70 (standard deviation 5.21)

RESULTS: CONSENSUS ON BARRIERS TO MEETING ROAD SAFETY GOALS

Pillar	Factor	Response
Pillar 1: Road safety management	Poor regulation and enforcement of commercial vehicles including public transport	Strongly agree
Pillar 4: Safer road users	Limited use of modern technology to monitor and enforce traffic issues	

RESULTS: FACTORS TO STUDY

- > High priority risk factors to study include:
 - Speeding
 - driving skills
 - driving under the influence of drugs/alcohol

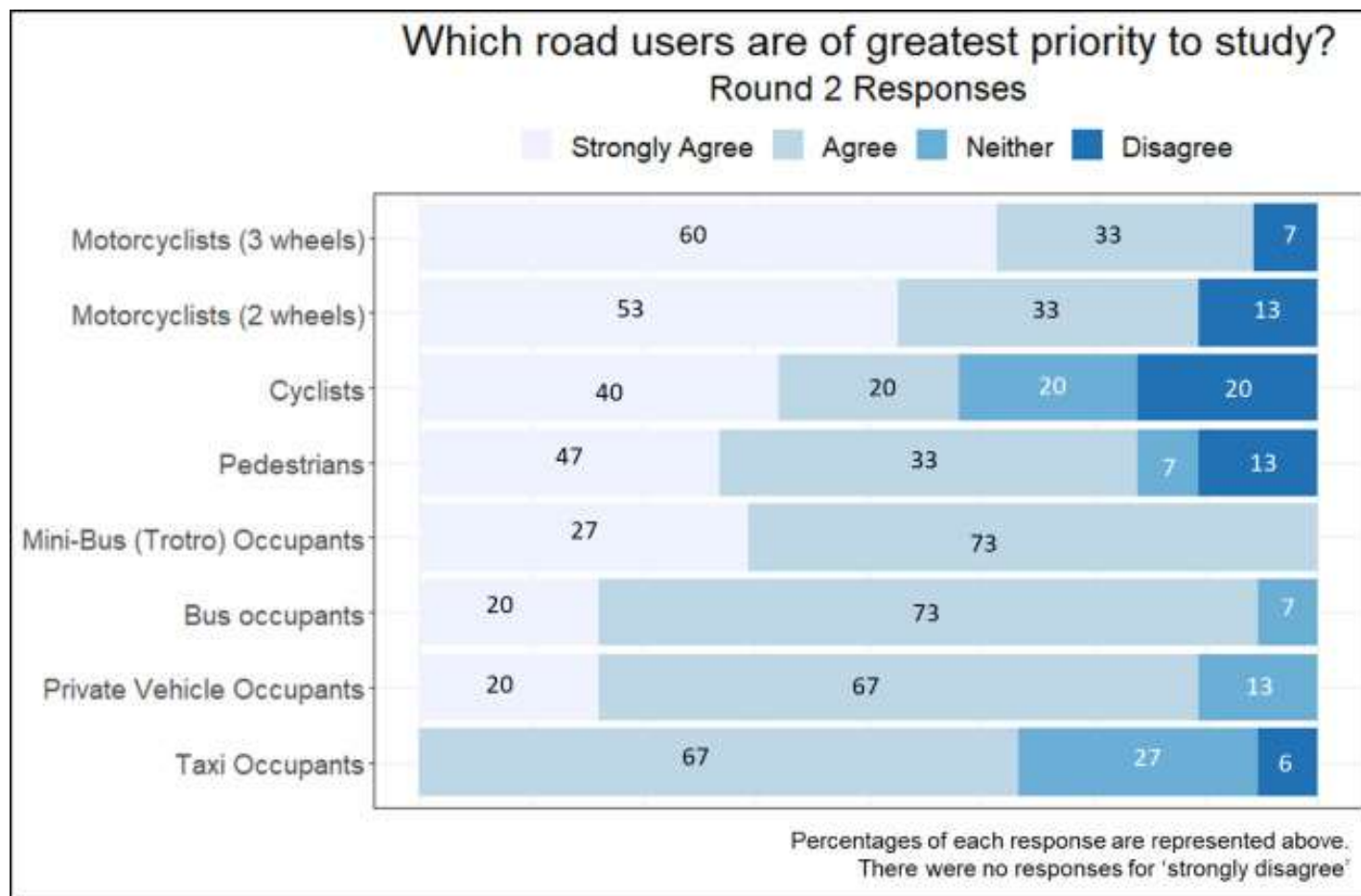
- > Participants noted that disabled vehicles on the roads should be studied and addressed
 - Such vehicles are not towed in a timely fashion
 - Can contribute to crashes, particularly at night

RESULTS: RESEARCH PRIORITIES

> Most road users are of high priority (e.g., have consensus on strongly agree or agree) to study

> Particularly important are

- Powered two- and three-wheeler occupants
- Pedestrians



RESULTS: RESEARCH PRIORITIES

> Consensus on research priorities for Ghana:

- Community first aid
- Trauma and rehab centers
- Treatment of hazardous spots
- Driving training
- Towing of disabled vehicles
- Road safety education



RESULTS: RESEARCH PRIORITIES

> Participant-generated research priorities included:

Interventions	Geographical areas and roads
<ul style="list-style-type: none">• Bypasses• Footbridges• Dualization of roads linking regional capitals	<ul style="list-style-type: none">• Asuboi township• Accra to Tema motorway• Bypass of Nkawkaw

CONCLUSION – COMMERCIAL BUSES

- > A key barrier to road safety goals are issues with commercial buses
- > There are opportunities to improve policies and programs by addressing the following risk factors from the literature in Ghana:
 - Limited education and training
 - Cell phone distraction and alcohol while driving
 - Inadequate vehicle maintenance



CONCLUSION – POWERED TWO AND THREE-WHEELERS

- > Powered two- and three-wheeler research and implementation is a high priority
- > This is well aligned with alarming trends of deaths in Ghana
- > Regulation and stricter compliance may be needed

Occupants of powered-two wheelers comprise **34% of deaths** in 2021

Occupants powered two-wheelers comprise **2.7% of deaths** in 2001

CONCLUSION: DISABLED VEHICLES

- > Participants highlighted the issue of disabled vehicles
 - No studies on this important issue
- > Enforcement of policies aim to address this issue
- > Further implementation and research is warranted

General News of Tuesday, 4 April 2023

Source: www.ghanaweb.com

Remove your broken down vehicles from roads or face compulsory removal, prosecution - NRSA

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File photo: Abandoned vehicles on a road

The National Road Safety Authority (NRSA) has announced that it will commence a joint exercise with the Ghana Police Service to remove all abandoned vehicles on roads across the country, on Wednesday, April 4, 2023,

According to the authority, the abandonment of vehicles on roads is an offense under Clause 21 of the Road Traffic Act, 2004 (Act 683) of the 1992 Constitution.

In a release sighted by GhanaWeb, the NRSA added that owners or caretakers of vehicles abandoned on roads will be liable to a “summary conviction to a fine of not more than two hundred and fifty

OVERALL CONCLUSIONS AND NEXT STEPS

> We need more research and implementation on key issues in Ghana:

- Powered two- and three-wheelers
- Disabled vehicles
- Dualization of roads
- Trauma care
- Technology for enforcement



> Our team is currently working on studies assessing:

- Distance to trauma care
- The impact of the dualization of roads on injuries and deaths



THANK YOU