Trends in Road Traffic Accidents in Anambra State, Nigeria 2010-2014

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Introduction

• Road Traffic Accidents, among the leading causes of death and injury globally
  – Leading cause of death in young adults aged 15-29 years
  – Estimated 1.4 million lives lost annually

• A major cause of non fatal injuries oftentimes leading to permanent disability and other indirect health consequences
  – Estimated 50 million people affected
Introduction

• Regional variations in both the number of road traffic deaths and death rates
• In 2013, the highest number of RTD 334,000 occurred in WHO South-East Asia Region
• WHO western Pacific region 333,000, two regions accounted for over 50%
• Countries in Europe have lowest fatality (9.3 per 100,000)
• RTD are “tip of iceberg” when it comes to burden of RTA
Objectives

• To determine the pattern of RTA cases in Anambra State
• To characterize the RTA cases in person, place and time
• To Identify the major causes of RTA cases in the state
• Recommend ways to alleviate RTA in the State
Study Area

- Anambra State, South Eastern Nigeria
- Population of 4,055,048
- Gateway to the South Eastern states of Imo, Abia, Rivers, Enugu and Ebonyi

Map of Anambra State showing 21 LGA’s
Study Design

• Retrospective descriptive study

• Review of all RTA records reported to Anambra State Command of FRSC from 2010 to 2014

• Key informant interview of stakeholders in the data collection and processing room
Case Classification

- Fatal Cases - if victims died
- Serious Injuries - victim hospitalized for more than 24hrs
- Minor Injuries – victim hospitalized for less than 24hrs
- Casualty - number of injured and number of deaths in an accident case
Data Collection and Management

• Data Tools
  – First Information Report Form (FIR)
  – Road Traffic Cases (RTC) Casualty Information Form (CIF)
  – RTC Summary Forms (weekly and Monthly)
  – RTC Causative Factor Form (CFF)

• Data entered in Microsoft word, transferred to Microsoft Excel

• Data was cleaned, validated and analysed using Microsoft excel package
Results

• A total of 1,141 RTA occurred between 2010 - 2014 consisting
  – 271 fatalities, 652 serious and 218 minor cases
• Within same period, a total of 1,816 vehicles involving 7,444 persons were involved in RTA
  – 448 Deaths and 2,785 injuries
• The 2 major causes of RTA in Anambra were
  – Loss of control 256 (17%)
  – Speed Violation 207 (14%)
Results

• Human involvement in RTA cases increased from 299 in 2010 to 1,842 in 2014
• Deaths in males was 348 (77%)
• Injuries in males was 2009 (72%)
• Vehicular involvement in RTA increased
  – Cars 467 (27%)
  – Minibuses 452 (25%)
  – Motorcycles 366 (20%)
Results

• 2013 had the highest incidence in RTA casualties
  – Casualties (deaths and injured) was 900 (27.8%)
  – Crashes (Fatal, Serious and Minor) was 294 (9.1%)
Results

Yearly trends in RTA in Anambra State, 2010-2014
## Results

<table>
<thead>
<tr>
<th>Years</th>
<th>Crashes</th>
<th>Casualties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Fatal</td>
<td>Serious</td>
</tr>
<tr>
<td>2010</td>
<td>97</td>
<td>16</td>
<td>51</td>
</tr>
<tr>
<td>2011</td>
<td>156</td>
<td>39</td>
<td>94</td>
</tr>
<tr>
<td>2012</td>
<td>311</td>
<td>67</td>
<td>178</td>
</tr>
<tr>
<td>2013</td>
<td>294</td>
<td>67</td>
<td>170</td>
</tr>
<tr>
<td>2014</td>
<td>283</td>
<td>82</td>
<td>159</td>
</tr>
<tr>
<td>Total</td>
<td>1,141</td>
<td>271</td>
<td>652</td>
</tr>
<tr>
<td>% Change</td>
<td>191.7 %</td>
<td>412.5 %</td>
<td>211.8 %</td>
</tr>
</tbody>
</table>
Results

Vehicular Involvement in RTA Cases in Anambra, 2010-2014

- **Car**: 26%
- **Minibus**: 25%
- **Motorcycle**: 20%
- **Trailer**: 10%
- **Tricycle**: 3%
- **Truck**: 12%
- **Luxury bus**: 0%
- **SUV**: 2%
- **Pick Up**: 1%
- **Tanker**: 1%
- **Bicycle**: 0%
Vehicle Types Involved in RTA Cases in Anambra, 2010-2014

The bar chart shows the counts of different types of vehicles involved in RTA cases in Anambra, Nigeria, from 2010 to 2014. The types of vehicles include:

- Car: 467
- Minibus: 452
- Motorcycle: 366
- Truck: 211
- Trailer: 177
- Tricycle: 51
- SUV: 43
- Pick Up: 25
- Tanker: 20
- Bicycle: 2
- Luxury Bus: 2

The counts are plotted on a bar chart, with the x-axis representing the type of vehicle and the y-axis representing the counts.
Probable Causes of RTA in Anambra, 2010-2014
Vehicle Categories involved in RTA Cases in Anambra, 2010-2014

<table>
<thead>
<tr>
<th>Vehicle Categories</th>
<th>Counts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>801</td>
</tr>
<tr>
<td>Commercial</td>
<td>992</td>
</tr>
<tr>
<td>Govt</td>
<td>23</td>
</tr>
<tr>
<td>Diplomatic</td>
<td>1</td>
</tr>
</tbody>
</table>
Conclusions

- Most RTA in Anambra occurred from human (preventable and avoidable) factors.
- 2013 had the highest human casualty.
- RTA from motorcycle was 20%.
Conclusions

• leading causes of road traffic accidents were
  – speed violation
  – loss of control
  – dangerous driving

• Injuries and deaths were more among males

• Commercial vehicles are mostly affected by RTA
Recommendation

• Sensitization and awareness to be directed more at commercial drivers and car owners
• Enforcement of use of crash helmets by motorcycle riders
• Creation of speed breakers or bumps along highways
• Enforcement of alcoholic test for drivers
Acknowledgements

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Thanks For your Attention