ABSTRACT
Cycle rickshaw is an activity that offers an alternative of mobilization to people, in and out of cities. However, its operation can trigger negative road safety incidents. In this research, we present the progress and results in the formulation and application of a methodology, with preventive approach, that seeks to respond effectively to the road safety incidence assessment of cycle rickshaw in Bogota (Colombia). The above, under a systemic approach, framed within the five pillars established in the National Road Safety Plan (2011-2021).

OBJECTIVE
To estimate the incidence of cycle rickshaw in road safety under a systemic preventive approach, in Bogota city, to recognize the effects that may arise from the practice of this activity.

METHODOLOGY
The methodology comprises four stages: A. Systematic literature review and information gathering by local, public and private entities. B. Debugging of the information focused on the characterization of the operation of cycle rickshaw and the motivations that led to the appearance of such phenomenon. C. Identify tools for the road safety assessment of cycle rickshaw, under a systemic preventive approach, which would allow incorporating all the variables of interest that could have influence in the achievement of the study objective. D. Establish methodologies and selection criteria of variables, for an assertive information collection, within each one of the five National Road Safety Plan pillars (NRSP, 2011-2021).

RESULTS
The literature review allowed to establish the knowledge of the general context under which cycle rickshaw currently operates and how it is found in terms of road safety and regulation, both in Bogotá and in other parts of the world. Also, it allowed to establish the methodology and processes under which the research is being carried out from each of the five NRSP pillars (2011-2021).

Regarding the five pillars, we have:
[i] Institutional management: currently, the intention of regulation that has been taken for the provision of the service is recognized, although it has not yet been possible, mainly due to motivations associated with road safety. However, this institutionality is not only given from the need for legal regulation. Cycle rickshaw pullers, have formed associations that self-regulate the operation to provide an efficient and comfortable service to the users. Therefore, the evaluation of the pillar will include both the management carried out by the public sector and the private sector.

[ii] Human behavior: it will be carried out through the analysis of individual places, based on behavioral observations, which involve qualitative variables identified as risk factors. Additionally, there will be the accompaniment of professionals in psychology and sociology. [iii] Victim care and rehabilitation: given that cycle rickshaw is an informal transport in Bogota, there is no official information regarding road accidents. Therefore, it was defined that, through surveys in hospitals,
collision centers, bicycle workshops and insurance companies, it will be possible to establish, in a general manner, the severity of the incidents presented and the procedure to attend victims. [iv] Infrastructure: will be evaluated through road safety audits in three high demand areas and [v] Vehicles: their characteristics and conditions will be evaluated under NTC 5286 standard.

CONCLUSIONS

In the local and national context, the cycle rickshaw operates from the informality. At the international level, this situation is also recurrent, which leads to a negative impact on road safety, whose magnitude is unknown. Therefore, it is necessary a systematic assessment of road safety, which allows establishing the main risk factors, the possible solutions to mitigate the negative impacts and, in the best of cases, allow regulation in the provision of the service.

During the study it was established that, although previously, the incidence of cycle rickshaw in road safety has been evaluated, those evaluations have not been systematic, which could lead to biases in the definition of variables and risk factors, reaffirming the need of the present study.

Finally, a method for information collection and road safety assessment of cycle rickshaw, from the pillars, is established. In the future, it will be possible to include new processes and investigative techniques, in case of find an advance regarding the information collection, seeking to obtain more precise results.