

# Use of child restraint systems

Current status, international best-practices and recommendations for Georgia

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# Introduction

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**WHO, the GRSP, the World Bank and FIA Foundation:**

*“infants and children need a child restraint system (also child car seat or infant carrier) that accommodates their size and weight and can adapt to cope with the different stages of their development.”*

# Introduction

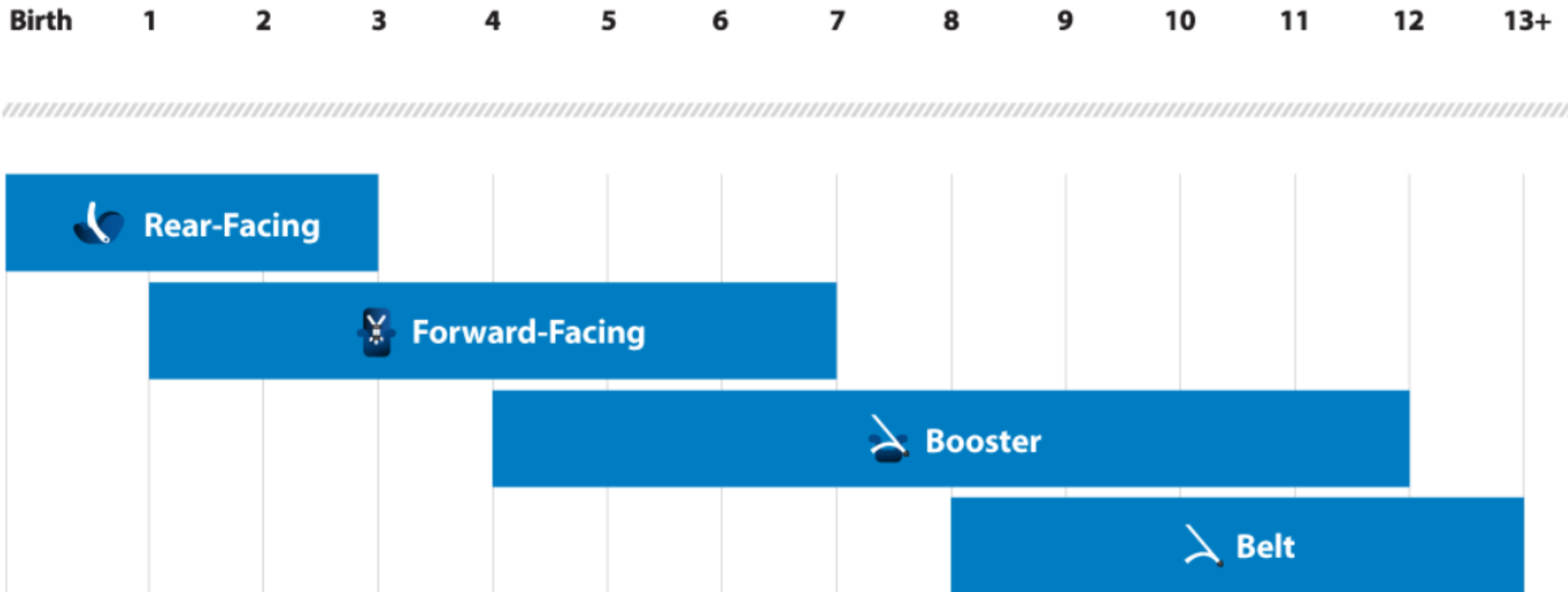
- designed to protect children from death or injury during a vehicle collision
- placed on the car seat so that children are properly restrained in the event of a sudden crash, but also a harsh braking manoeuvre
- child should not use the safety belt directly, as it does not adapt well to a child's size, may not hold it securely and can even cause injuries (e.g., if the upper band is too close to the neck or if the lower band is placed above the abdomen).

**Different types of child restraint systems** are available:

- Rearward-facing baby seats
- Forward-facing child seats
- Booster seats (with high back) and booster cushions (backless)

# Introduction

## Recommended child restraint systems based on child's age in years



Source: <https://www.nhtsa.gov/equipment/car-seats-and-booster-seats>

# UN Regulations for child restraints

UN Regulation No. 129 (i-size)	UN Regulation No. 44/04
Classification based on child's height (in cm)	Classification based on child's weight (in kg)
No groups	Categorised by groups (Group 0+, 1, 2, 3)
Child must rear face to a minimum of 15 months	Child can be forward facing from 9 kg
Can only be used for ISOFIX	Can be used for safety belt or ISOFIX seats
Rear, front and side impact testing	Rear and front impact testing
Q dummy used in crash tests with 32 sensors	P dummy used in crash tests with 4 sensors

In the European Union, all car seats must fulfil the UN Regulation No. 129 or UN Regulation No. 44/04 safety standard before going on the market and must be installed in accordance with the instructions provided by the manufacturer.

In addition, **UN Regulation No. 145 regulates** uniform provisions concerning the approval of vehicles with regard to ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size seating positions.

# Labelling of child restraints



Category name, size and weight indication (i-Size universal ISOFIX, in this example ranging from 40 to 70 cm and a weight smaller or equal to 24 kg)

The letter "E" in a circle and the country code of the state responsible for approval (e.g. "1" for Germany)

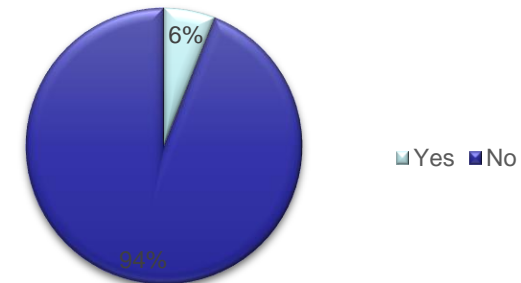
Approval number (00 for the series of amendments with subsequent approval number, in this example: "2439")

The designation of the Regulation 129 including the series of amendments (here: 00)

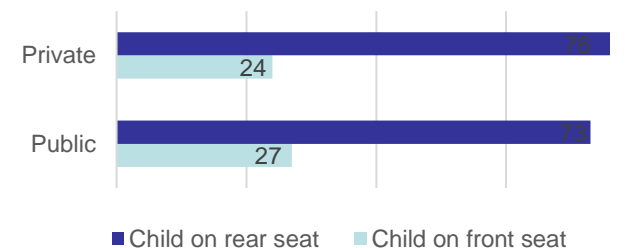
# Context and magnitude of the problem

- Lack of consistent and reliable data makes it difficult to assess the current situation.
- In 2017 a study was carried out in which a total of 604 passenger cars were observed in the vicinity of 20 public and 20 private kindergartens in the morning and evening hours. In total, only 6% of drivers had a child seat in the car, and a quarter (26%) put children under 6 in the front seat. There were cases when a driver was sitting with a small child in the car while driving, and there were also cases when the child seat was misused and attached to the front seat of the car.
- In the case of private kindergartens, 8% of cars had a child seat, and in 24% of the cases child seat was attached to the front seat. In the case of public kindergartens, only 5% of cars had a child seat and 27% of drivers carried a child sitting in the front seat.

Child restraint wearing rates

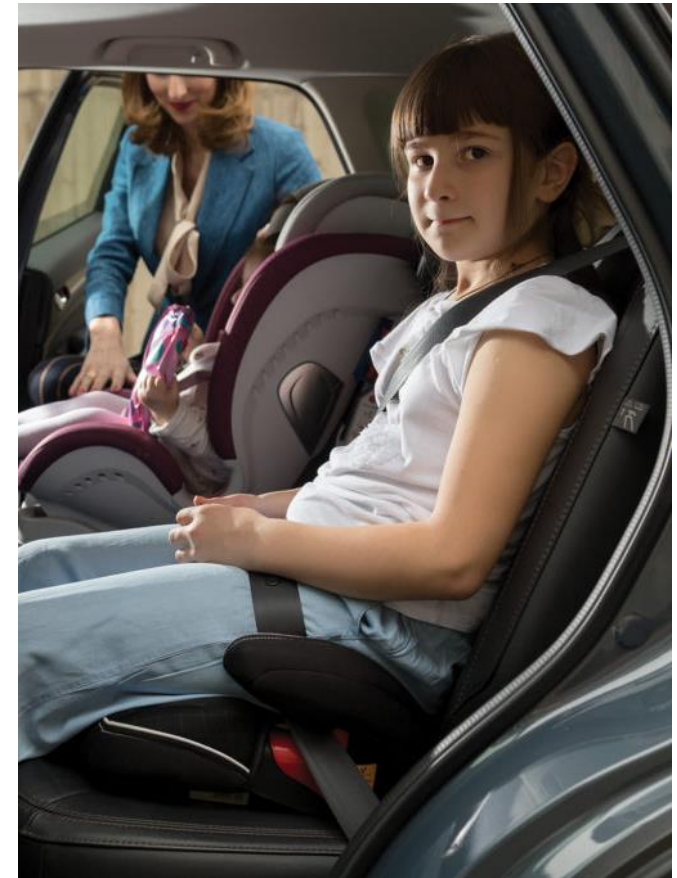


Children on front and rear seats near private and public kindergarten (%)



# Analysis of legal framework and state-of-the-art in Georgia

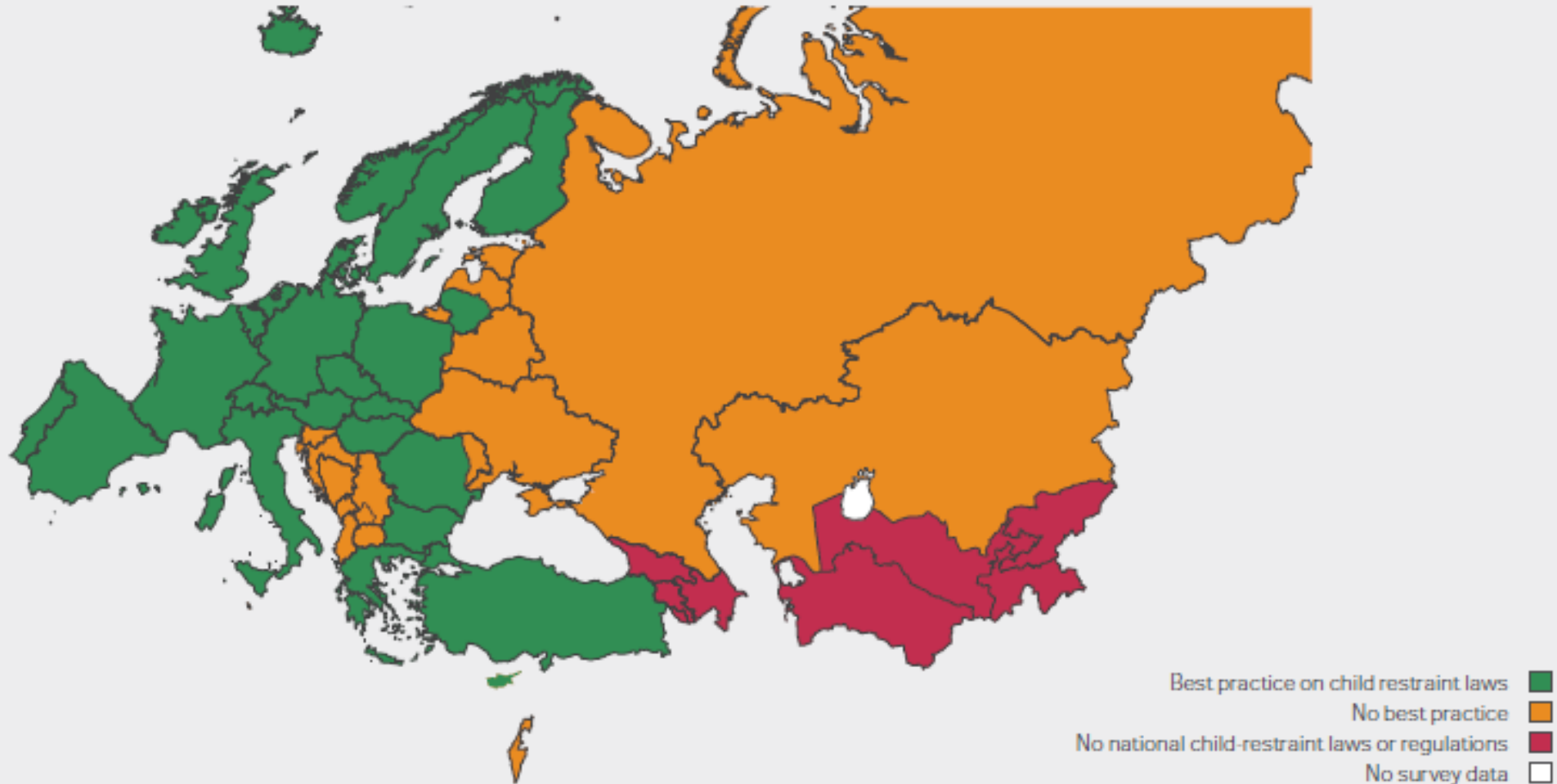
- Currently, the use of child restraints is not regulated by Georgian legislation
- Back in October 2019 a draft law was initiated, which proposed changes to the Georgian Law on Traffic, but never went into force





# Analysis of legal framework and state-of-the-art on the European and international level

## Legislation on child restraint systems in the European region, by country



Source: WHO European regional status report on road safety 2019

# International best-practice on child restraints

## Strong child restraint policy and legislation

- Require that only a **correctly fitted child restraint of a good standard** is used, and one which is appropriate for a child's size and weight
- **Prohibit carriage of children in front seats** unless placed in approved child restraints, with airbags switched off
- **Standards for child restraints and their use** need to be consistent with **internationally accepted good practice**. Systems that are designed for securely fitting child restraints in cars, and are included in vehicle design standards, are proving to be simple to use and effective. The **ISOFIX system** is becoming the standard for vehicle design in many countries that allows for the child restraint to be secured by a plug-in attachment into a socket built into the vehicle.
- **Exemptions to child-restraint laws, e.g., for taxis or busses, must carefully be considered.** Widespread exemptions are not advisable as they could undermine the effectiveness of a child restraint program.
- Set **penalties that are serious** and consistently enough to deter people from not using a correctly fitted and appropriate child restraint
- Introduce **effective, consistent and politically supported enforcement**

# International best-practice on child restraints

## Effective enforcement

- Police enforcement must act as a **strong deterrent to drivers driving with a child not seated in a correctly fitted child restraint** that is appropriate for a child's size and weight
- The public must have the **perception they will be caught by police and receive a penalty** if they are driving with a child not seated in a correctly fitted child restraint that is appropriate for a child's size and weight. This is achieved through enforcement campaigns that are:
  - **highly visible**, such as through the use of strategically located checkpoints
  - **repeated** and conducted in a widespread way so that there is a perception that it is possible to be caught '**anywhere at anytime**'
  - **supported by penalties** that are always applied to anyone driving with a child not using a child restraint
  - **well-publicized** before, during and after

# International best-practice on child restraints

## Targeted public education and social marketing campaigns:

- Conducted together with effective police enforcement
- Target **parents and carers** of infants and young children, those expecting the birth of a child as well as **sales personnel** for child restraints
- Combine financial incentives or **distribution of free booster seats**
- Create **free loan schemes for infant or booster seats** (e.g., together with municipalities, automobile clubs or insurance companies)
- Offer **web-platforms** (e.g., together with automobile clubs or insurance companies) that allow families to get child restraint systems free of charge donated by others who no longer need them
- Target driver safety belt use to increase child restraint use.
- Include correct use of child restraint systems in kindergarten and elementary school curricula
- Team up with relevant stakeholders (automobile clubs, insurance companies, etc.) when developing education and campaigns

# Opportunities and challenges of implementation

- The introduction of appropriate legislation for child restraint systems combined with consistent enforcement and targeted public education and social marketing campaigns is a great opportunity for Georgia.
- Legislation could be supported by municipalities or private organisations to provide training and advice to those that are responsible for selling child restraint systems but also to parents and carers.
- Subsidies for child restraint purchase or schemes
- Engagement of relevant stakeholders
- Education of parents and carers as well as sales personnel is important.
- Activities such as car seat checks
- Positive, incentive-based campaigns
- Still, campaigns without enforcement are often not effective.



# Recommendations

- **Introduce appropriate legislation mandating UN Regulations** for child restraint systems.
- **Enforce new legislation** and provide targeted public campaigns. Campaigns without enforcement are often not effective.
- Protect Georgian market from **counterfeited/sub-standard child restraint systems**
- Further develop **child restraint loan schemes or subsidies** purchase to ensure the availability and affordability of child restraints for those who need them.
- **Educate parents and carers** on how to correctly use restraints (e.g., seat checks held in supermarkets or commercial area car parks by local authorities, traffic police or road safety organizations).
- Provide **trainings for child seat sales personnel** to have strong knowledge of the law, vehicle technologies, child growth and development.
- Introduce a **standardized system for collection and analysis of data on road crashes, injuries and fatalities of children as well as road safety indicators (child restraint usage rates)** to evaluate the effectiveness of policies and programmes, and for planning purposes.

# Estimation of road safety benefits

About 7 % of fatalities are children aged 0 – 16 years (in comparison, in the EU children under 15 years old accounted for 2% of fatalities). Using this estimate leads to 31 fatalities in the age group of 0 – 16 years for the year 2021.

The ETSC showed that in Europe half of child deaths are car occupants. For Georgia, this would mean 16 children died as car occupants in 2020.

**As child restraints reduce the likelihood of a fatality by approximately 70 % over all relevant age groups, almost 12 children could have been saved in 2021.**

**We look forward to your questions  
and a fruitful discussion.**

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