



ROAD CASUALTIES

In Bristol

2020

2 Children (15 years & under) Killed or Seriously Injured (no change from previous year)

7 Young Adults (16–24 years) Killed or Seriously Injured (lower by 11 from previous year)

6 Elderly Adults (60 years & over) Killed or Seriously Injured (lower by 13 from previous year)

45 Other Adults (25 to 59 years) Killed or Seriously Injured (higher by 1 from previous year)

717 Slight Injuries (lower by 343 from previous year)

2 Taxi occupants slightly injured (lower by 9 from previous year)

0 Bus occupants injured (lower by 15 from previous year)

Casualty Total of **777** (lower by 366 from previous year)

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Introduction

This report focuses on road collisions in Bristol that have been reported to the local police force and which resulted in either a fatality or a personal injury (all referred to as casualties).

Corona Virus (COVID-19) Global Pandemic

From February/March 2020, self-imposed travel restrictions began in response to the impending COVID-19 (Corona Virus) Global Pandemic. Private Businesses began asking staff to work from home. On March 13th, national sporting fixtures were postponed as were the forthcoming local elections. On March 16th, UK Government informs the population to restrict their movements to essential travel only, and to limit contact with others (working from home where possible). On March 24th, ‘Lockdown’ of UK population and all business activities began lasting for around 14 weeks until 23rd June. Restrictions on movements/economic activity while being relaxed over the summer months were still in place, and a 2nd ‘Lockdown’ in England began on November 5th, lasting for around 4 weeks until 2nd December, when partially lifted, with the introduction of an ongoing four-tier system of restrictions on movements/economic activity.

Following the initial Lockdown period that started in March, traffic volumes in the city, and with it the risk of exposure to road collision, did not at any point in 2020 return to its pre-crisis level.

In 2020, there were **777** reported casualties (**including 7 fatalities**), this was 366 fewer than the previous year. The annual change in road casualties when following the 3-year rolling average indicates that the long-term trend is still downward, as illustrated in Annex 2b.

Although the number of road collisions in 2020 declined from the year before (from 972 to **652**), reflecting the lower traffic volumes across the road network because of the response to the Corona Virus pandemic, the severity rate of those collisions rose from 8%, in 2019, to **8.9%**. This rise is something that was also replicated nationally. In Bristol, the only vulnerable road user group to see a decline in its casualty severity rate in 2020 was that of pedestrian casualties, which declined from around 15%, in 2019, to around **10%**.

There were **60** KSI (killed or seriously injured) casualties reported in 2020, this was 23 fewer than the previous year and a decrease of 28%. The annual change in KSI road casualties when following the 3-year rolling average indicates that the long-term trend is still downward, as illustrated in Annex 2a.

KSI casualties made up **7.7%** of the total number of reported casualties during the year. There were **7** fatal casualties – a level that is below the recent (2009 to 2018) long-term average for Bristol's roads of 8 deaths per year.

The overall casualties by age-group were as follows:

- Children – **69** (this included 0 fatality), which was 8.88% of the total number of casualties reported
- Young Adults – **141** (this included 1 fatality), which was 18.15% of the total number of casualties reported
- Other Adults (25–59 yrs) – **508** (this included 5 fatalities), which was 65.38% of the total number of casualties reported
- Elderly – **57** (this included 1 fatality), which was 7.33% of the total number of casualties reported

There were 2 casualties (all slightly injured) of unknown age.

Table 1: Casualties Summary

2020 (year)	KSI	Slight	All
Total	60	717	777
Pedestrians	12	112	124
Cycle users	11	162	173
Motorcycle users	17	92	109
Car & Taxi Occupants	19	330	349
Other road users	1	21	22
Child Total	2	67	69
(Child pedestrians)	1	27	28
(Child cycle users)	1	13	14
Elderly Total	6	51	57
(Elderly pedestrians)	1	15	16
(Elderly cycle users)	0	7	7

There were 478 male casualties overall, which was 61.5% of the casualty total, and 299 female casualties overall, which was 38.5% of the casualty total. Male casualties formed 80% of the Killed or Seriously Injured casualty total, and female casualties formed 20% of the Killed or Seriously Injured casualty total.

Economic Cost of Collisions and Casualties

The estimated economic cost of a road collision is published annually by the Department for Transport in their Road Casualties Great Britain report – see table below showing figures based on 2020 prices. Using the figure for the ‘all injury’ collision type on Built-up roads of £82,864, **the value of prevention of the 652 collisions in Bristol in 2020 is £54.03 million.**

Table 2: Economic Cost of Collisions and Casualties by severity of injury and road class. Note: figures are in 2020 prices and are in pounds sterling

Accident Type	Built-Up Road (40mph and below)	Non Built-Up Road (above 40mph)	Motorway	All Roads
Fatal	2,085,259	2,157,333	2,106,024	2,120,669
Serious	239,145	263,254	274,138	246,109
Slight	23,850	28,640	34,266	24,960
All Injury	82,864	171,733	138,673	101,415
Damage Only	2,194	3,207	3,082	2,303

Summary/Overview of Road Casualty Trends (Table and Charts)

Table 3: Comparison of Collision and Casualty Data Since 2017

Injury Severity	Collisions/ Casualties	2017	2018	2019	3-year average (2017 to 2019)	2020	% Change from 3-year average
Fatal	Collisions	11	7	3	7	7	0.0%
Fatal	Casualties	12	7	3	7	7	-4.5%
Serious	Collisions	63	98	74	78	51	-34.9%
Serious	Casualties	67	103	80	83	53	-36.4%
Slight	Collisions	784	842	895	840	594	-29.3%
Slight	Casualties	946	1031	1060	1012	717	-29.2%
Total	Collisions	858	947	972	926	652	-29.6%
Total	Casualties	1025	1141	1143	1103	777	-29.6%

Charts 1a and 1b (below) illustrate that the risk of death or serious injury on our roads is not equally distributed. Indeed, it is the vulnerable road users, who themselves pose little risk to other road users, that disproportionately bear the brunt of the casualty burden.

Chart 1a: All casualties by road user group, 2018 to 2020 totals (3-year average).

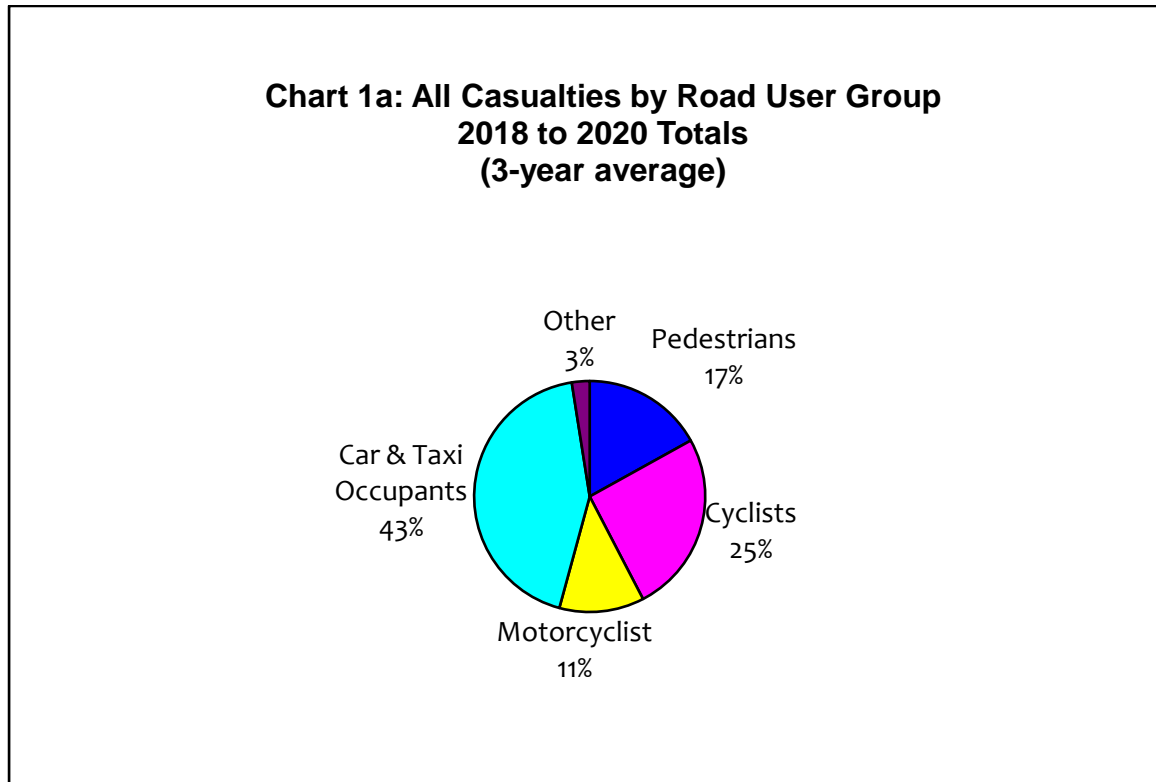


Chart 1b: KSI casualties by road user group, 2018 to 2020 totals (3-year average).

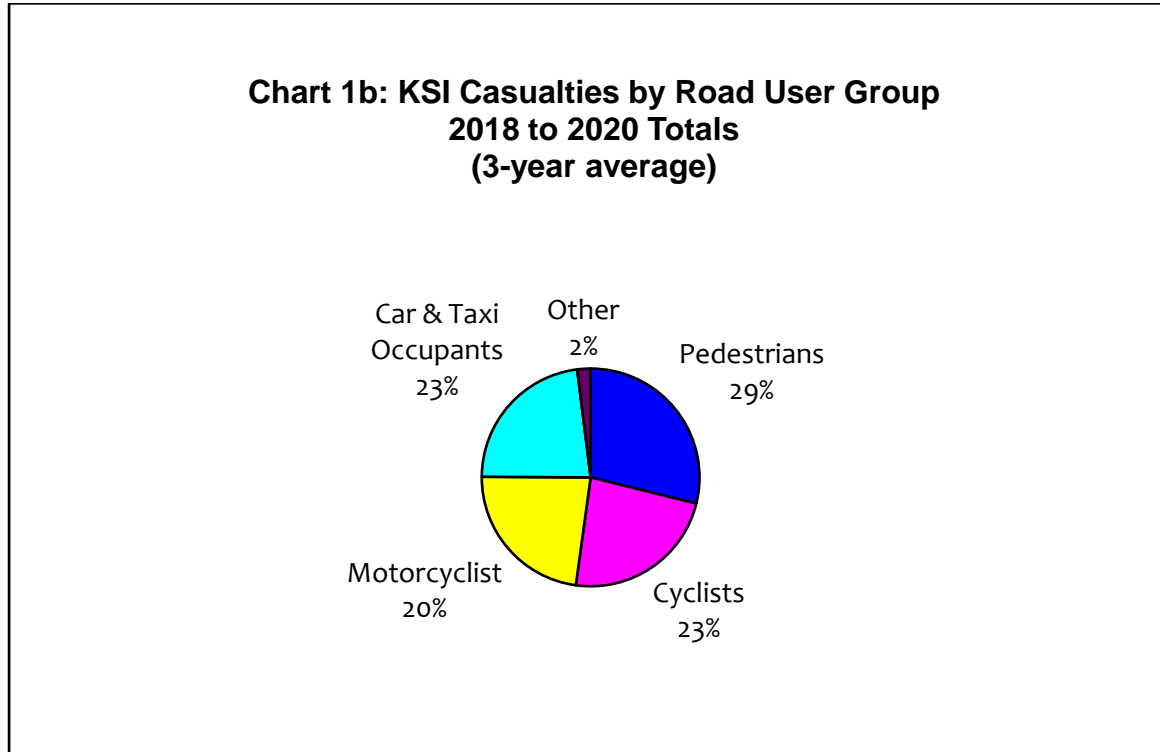


Chart 2a: Annual Change in Casualties by Road User Group, 2005 to 2020

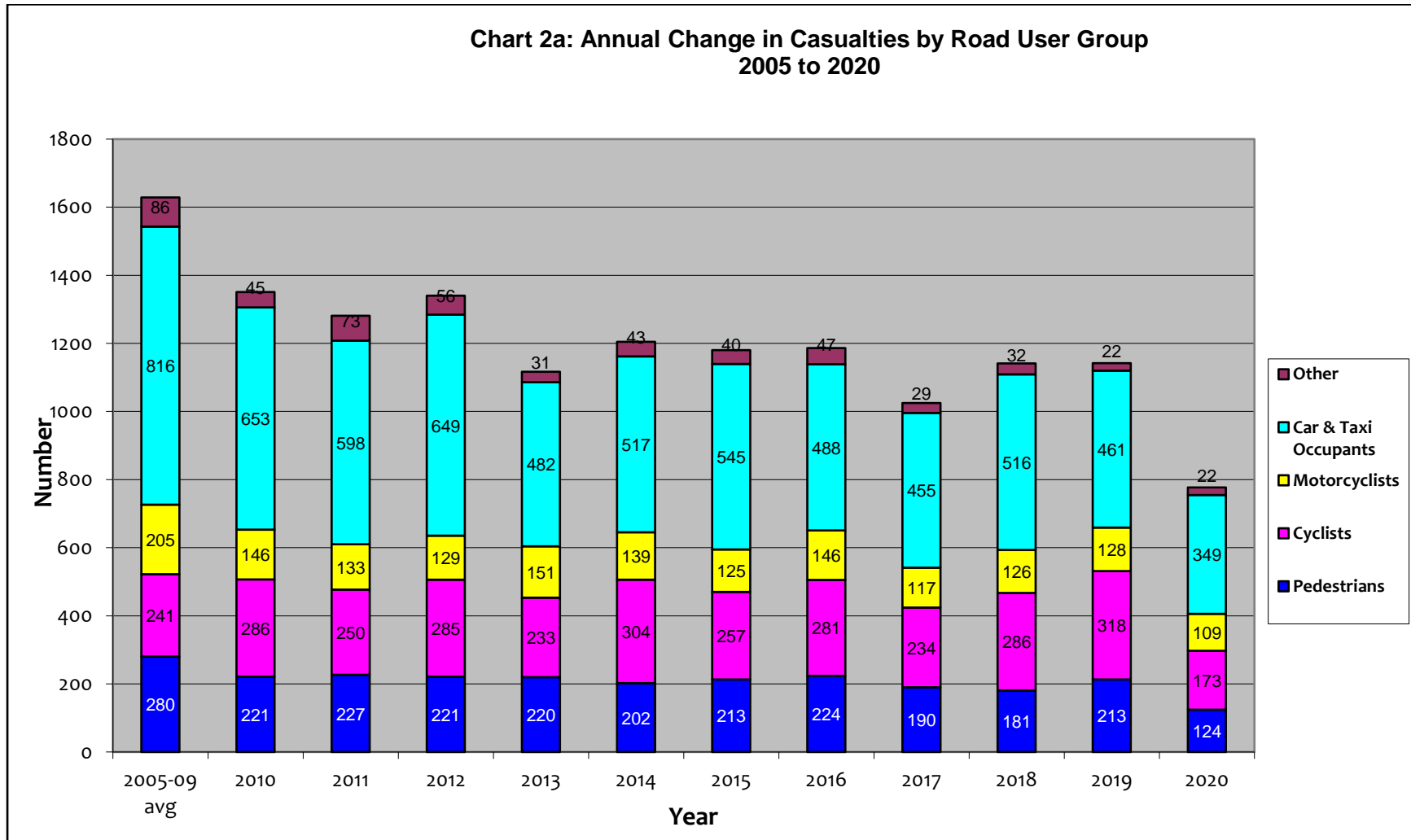


Chart 2b: Annual Change in KSI Casualties by Road User Group, 2005 to 2020

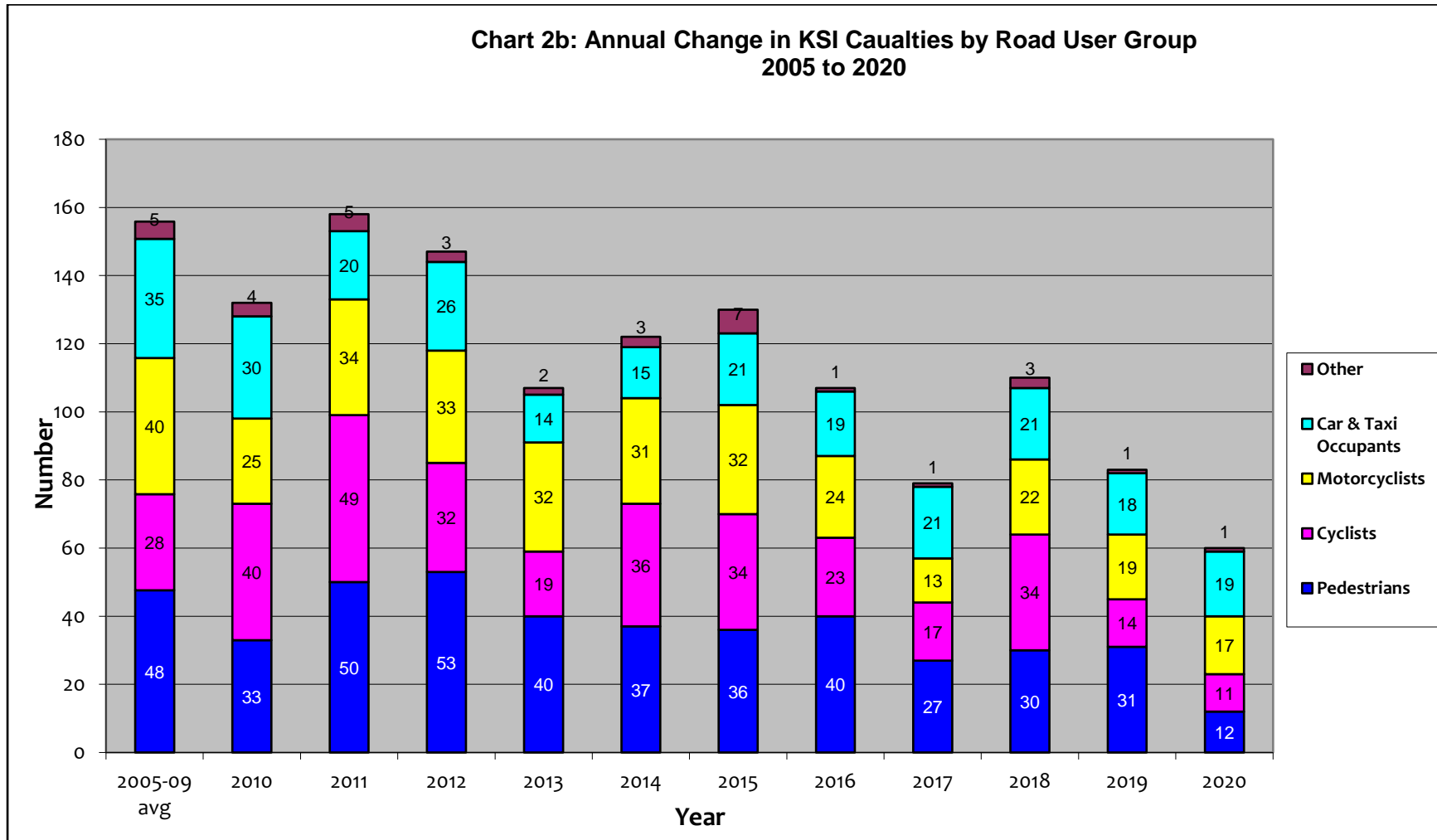


Chart 3a: Annual Change in Casualty Proportions for each Road user Group, 2005 to 2020

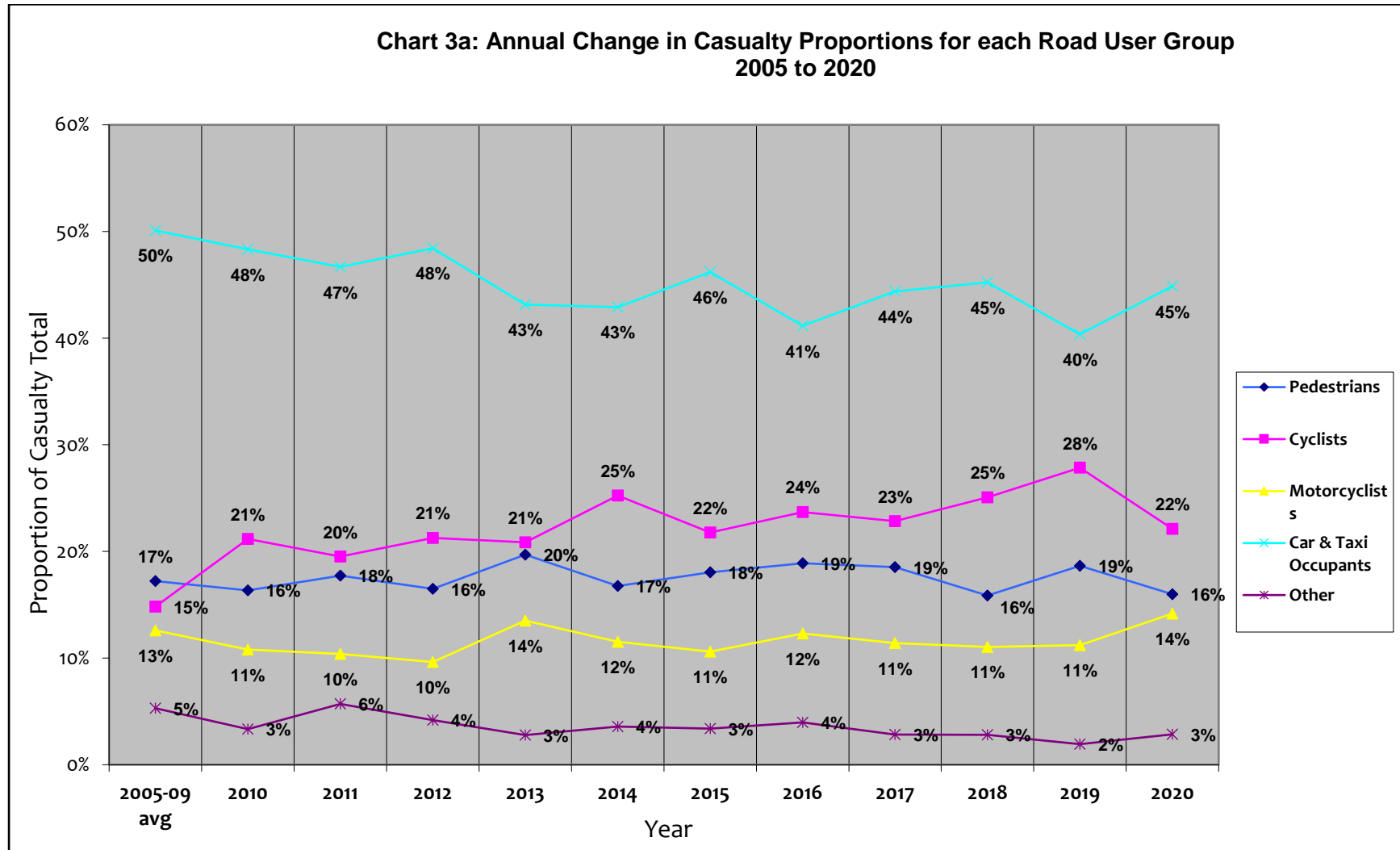
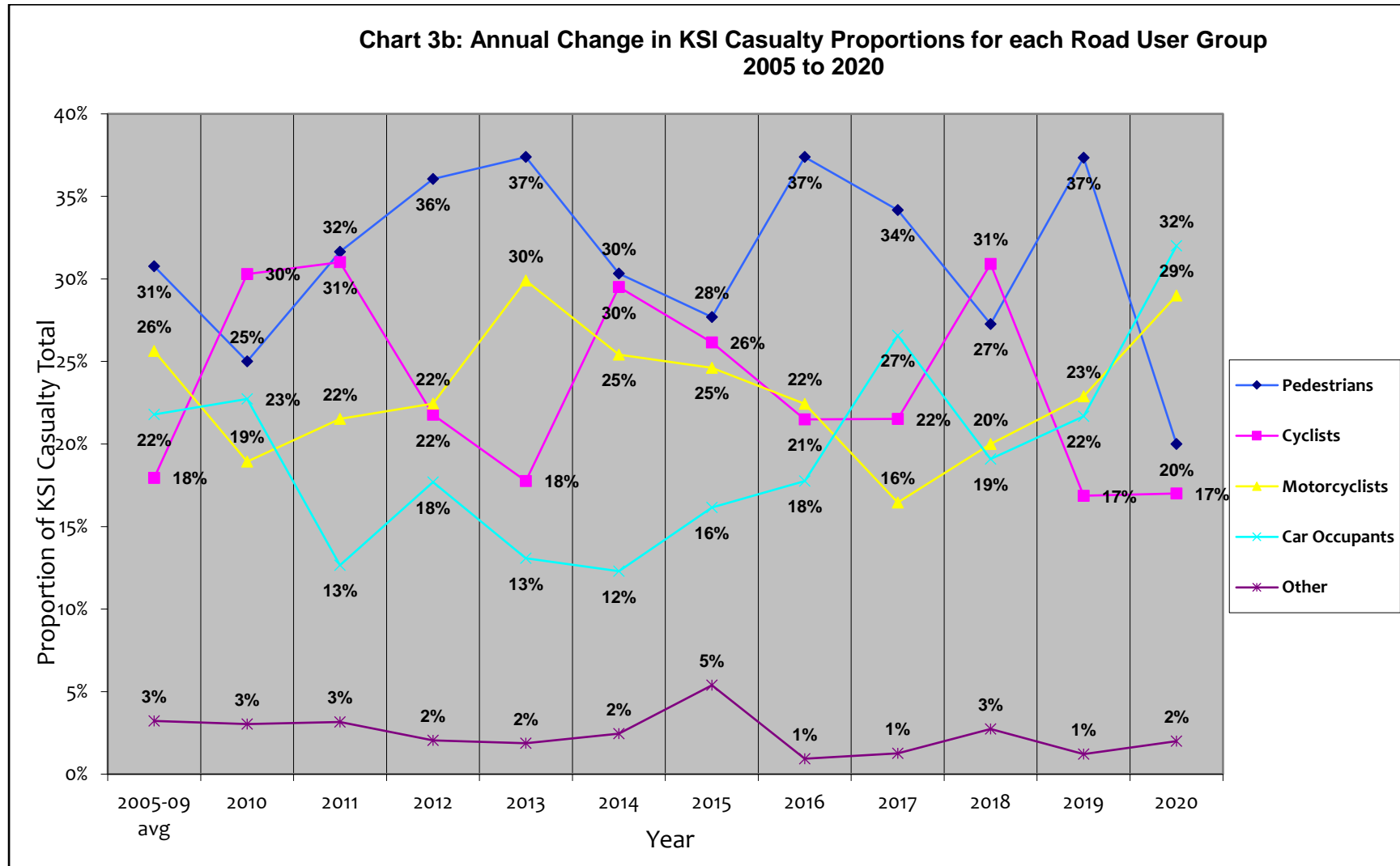


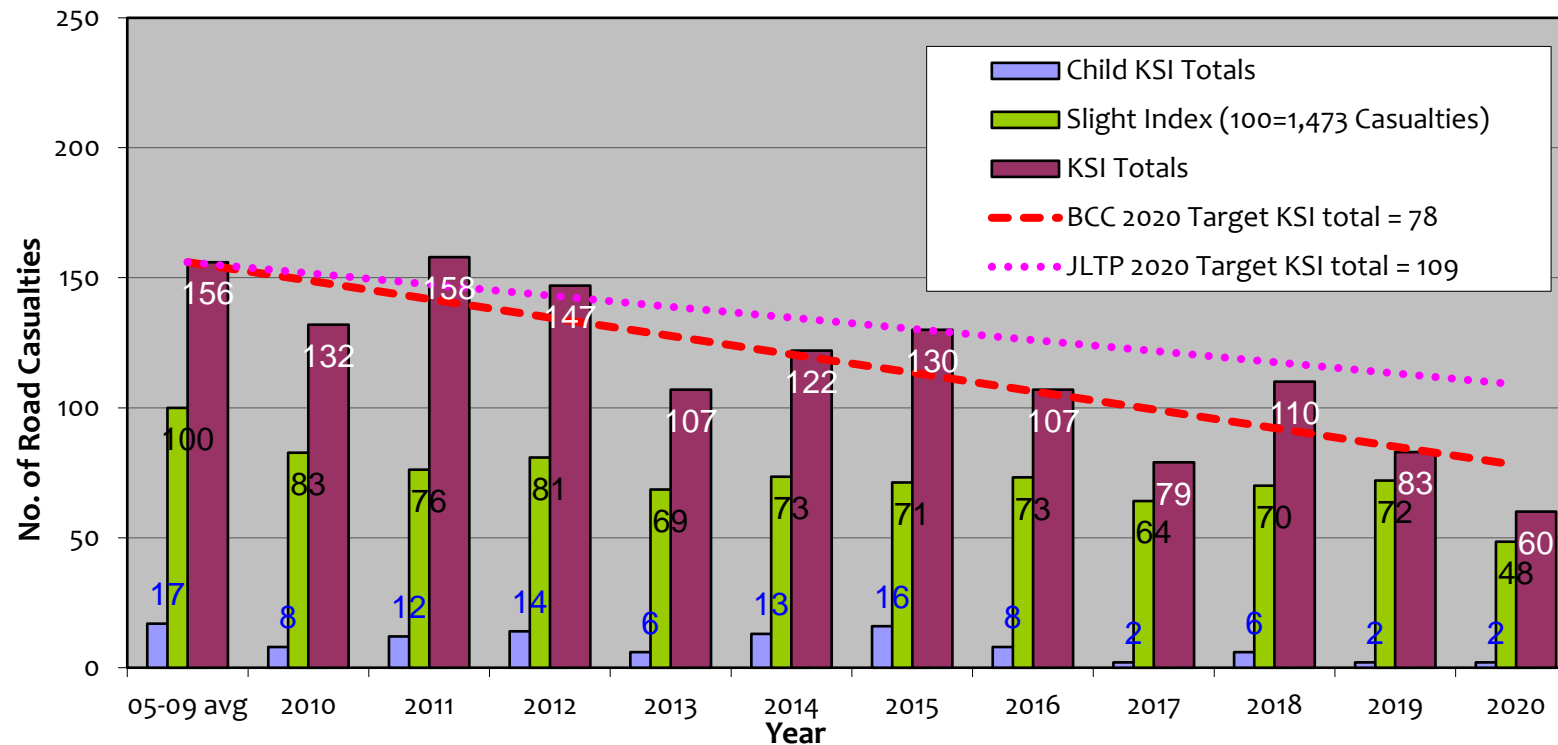
Chart 3b: Annual Change in KSI Casualty Proportions for each Road user Group, 2005 to 2020



Targets & Progress

The Chart below shows the end of the 2020 KSI-casualty targets, which the City Council has been working towards. In 2020, the number of KSI casualties was below the level set to meet the 2020 target that was set by the West of England’s 3rd Joint Local Transport Plan. In addition, the number of KSI casualties was also below the level of the more ambitious 2020 target that the City Council independently set for itself in November 2015.

Figure 1: Bristol’s 2020 Road Casualty Targets and Progress. Note: Child KSI totals and Slight Index are shown for information only



Pedestrians

124 casualties (incl. 1 fatality)

There was a decrease of 89 or **42%** in the total number of Pedestrian casualties from the year before, from 213 to **124**.

The proportion of Pedestrian casualties killed or seriously injured was **10%**, and Pedestrians made up **20%** of all the KSI casualties.

Based on the 2018–20 pedestrian casualty rates per 100 thousand of the population, the **most vulnerable** age–group for Pedestrian casualties is **10–19 year–olds**.

In 2020, males and females each made up **half** of all the Pedestrian casualties.

There were **28** Child Pedestrian casualties, who made up **23%** of the overall Pedestrian casualty total.

There were **16** Elderly Pedestrian casualties who made up **13%** of the overall Pedestrian casualty total.

119 or **96%** of the Pedestrian casualties were involved in a collision with a motorised vehicle (predominantly a passenger car), and of these, 5 (4%) were motorcycles/mopeds; 5 (4%) were goods vehicles. 4 or **3%** of the Pedestrian casualties were involved in a collision with a pedal cycle.

Historically, **over half** of collisions involving pedestrians occur within a 2.5km radius of the city centre.

Chart 4a: Child (<16 years old) Pedestrians

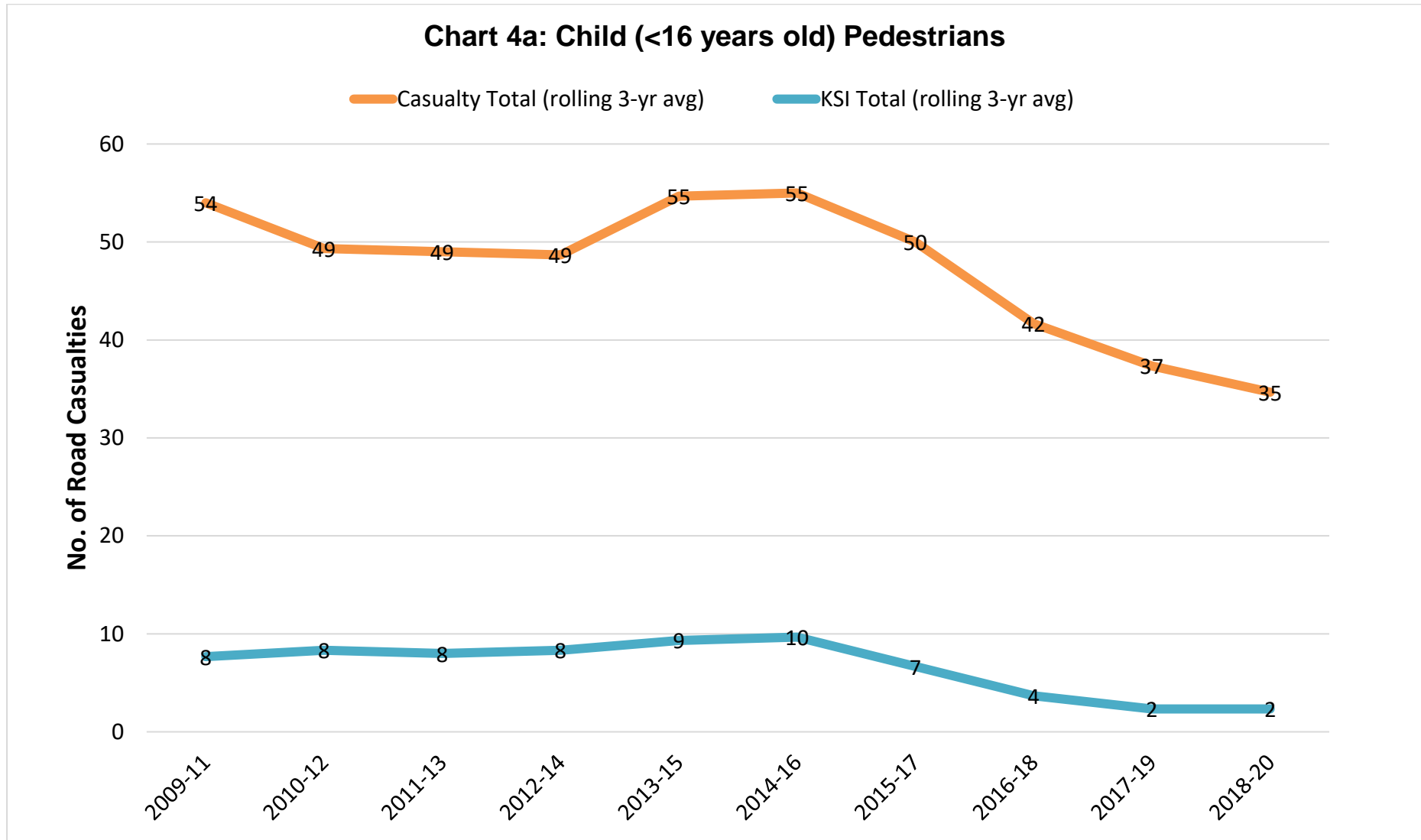


Chart 4b: Adult (>15 years old) Pedestrians

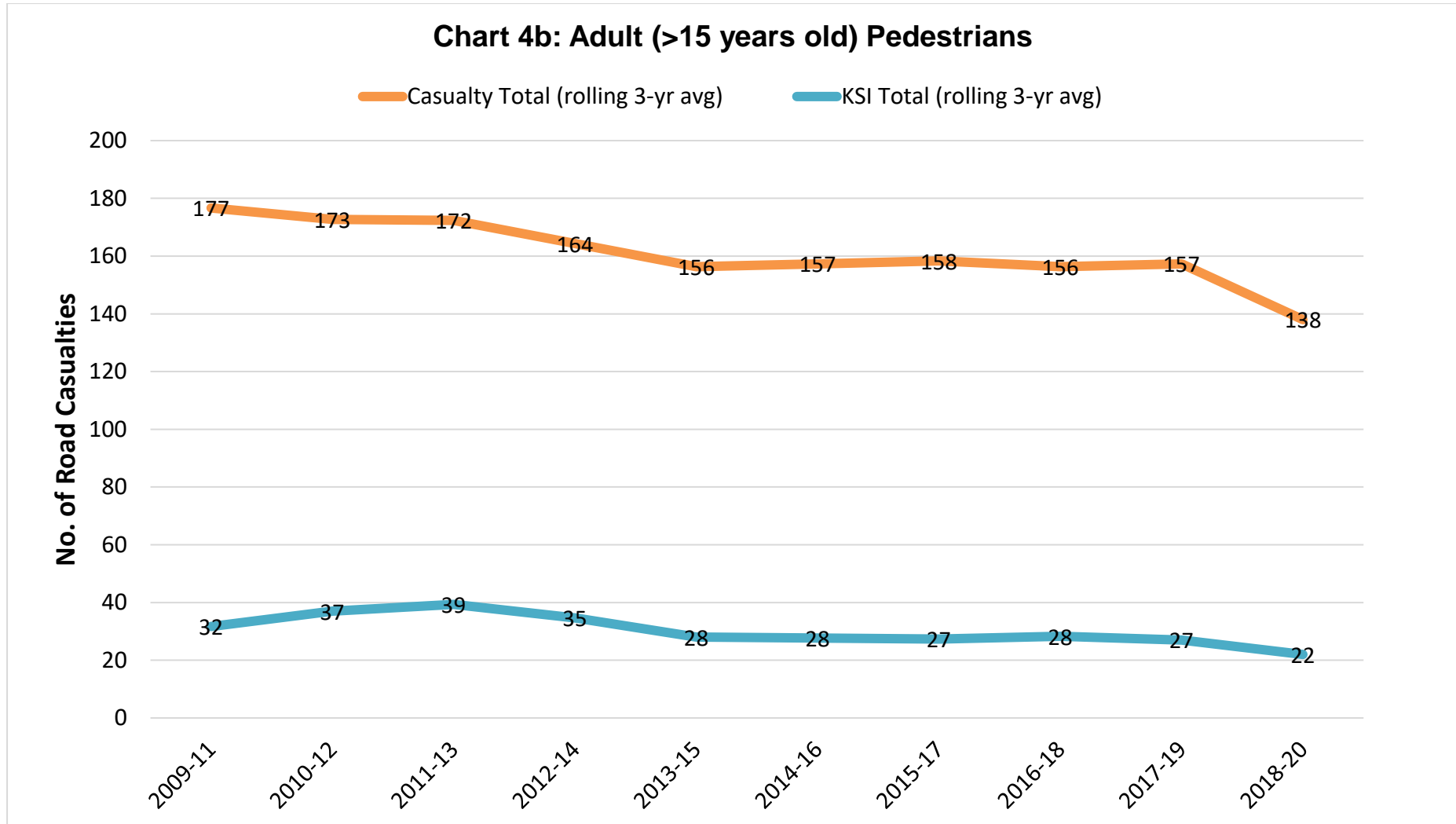
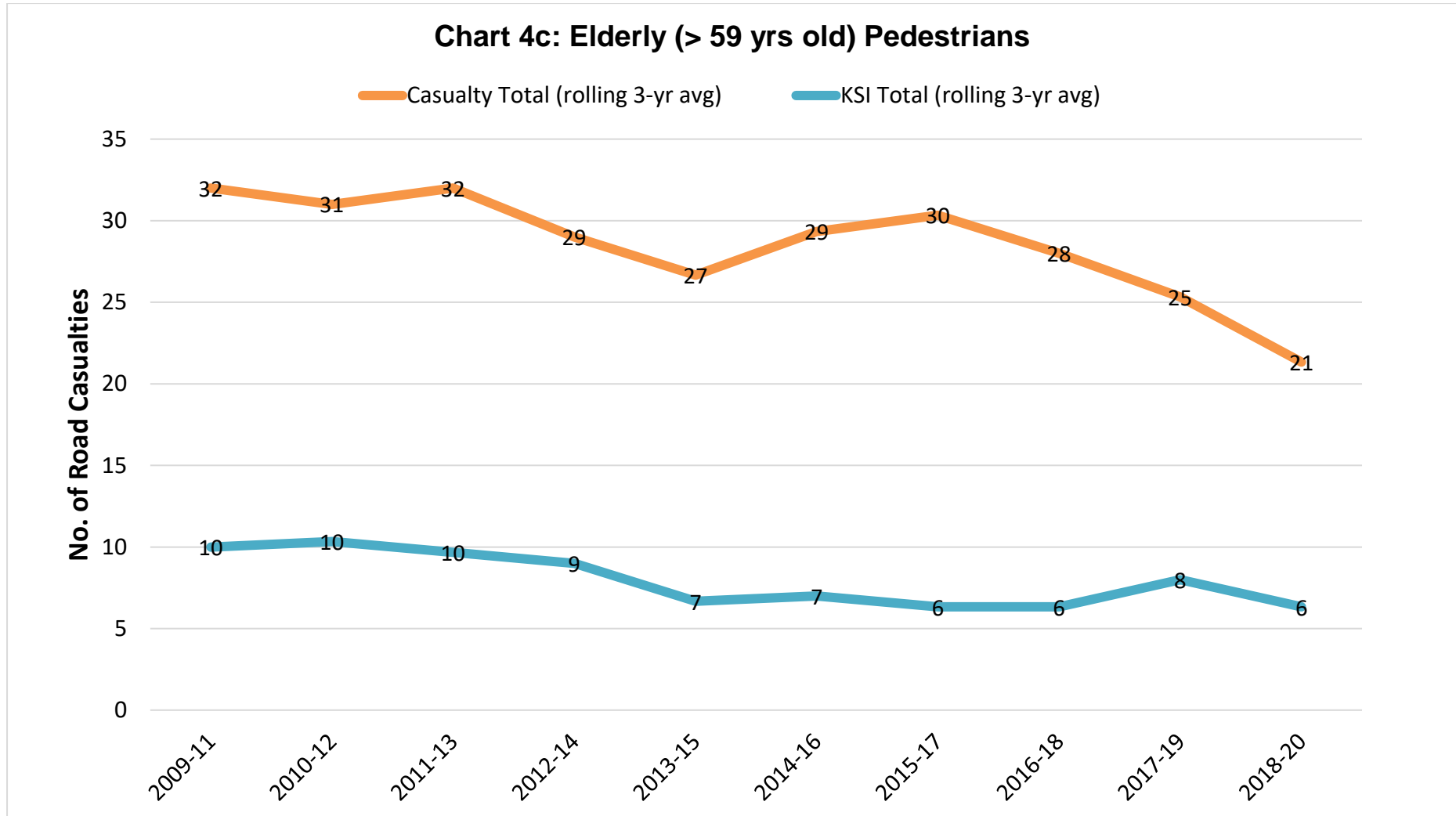


Chart 4c: Elderly (>59 years old) Pedestrians



Pedal Cycle Users

173 casualties (incl. 0 fatality)

There was a decrease of 145 or **46%** in the total number of Cycle User casualties from the year before, from 318 to **173**.

The proportion of Cycle User casualties killed or seriously injured was **6.4%**, and Cycle User casualties made up **17%** of all the KSI casualties.

Based on the 2018–20 cycle user casualty rates per 100–thousand of the population, the **most vulnerable** age–group for Cycle Users is **30–34 year–olds** (predominantly male).

In 2020, males accounted for **69%** of all the Cycle User casualties.

There were **14** Child Cycle User casualties, a decrease of 3 from the previous year, and children made up **8%** of the overall Cycle User casualty total.

There were **7** Elderly Cycle User casualties who made up **4%** of the overall Cycle User casualty total.

Historically, collisions that involve cycle users are predominantly with a passenger car. **Over half** of collisions involving cycle users take place at junctions.

Chart 5a: Child (<16 years old) Pedal Cycle Users

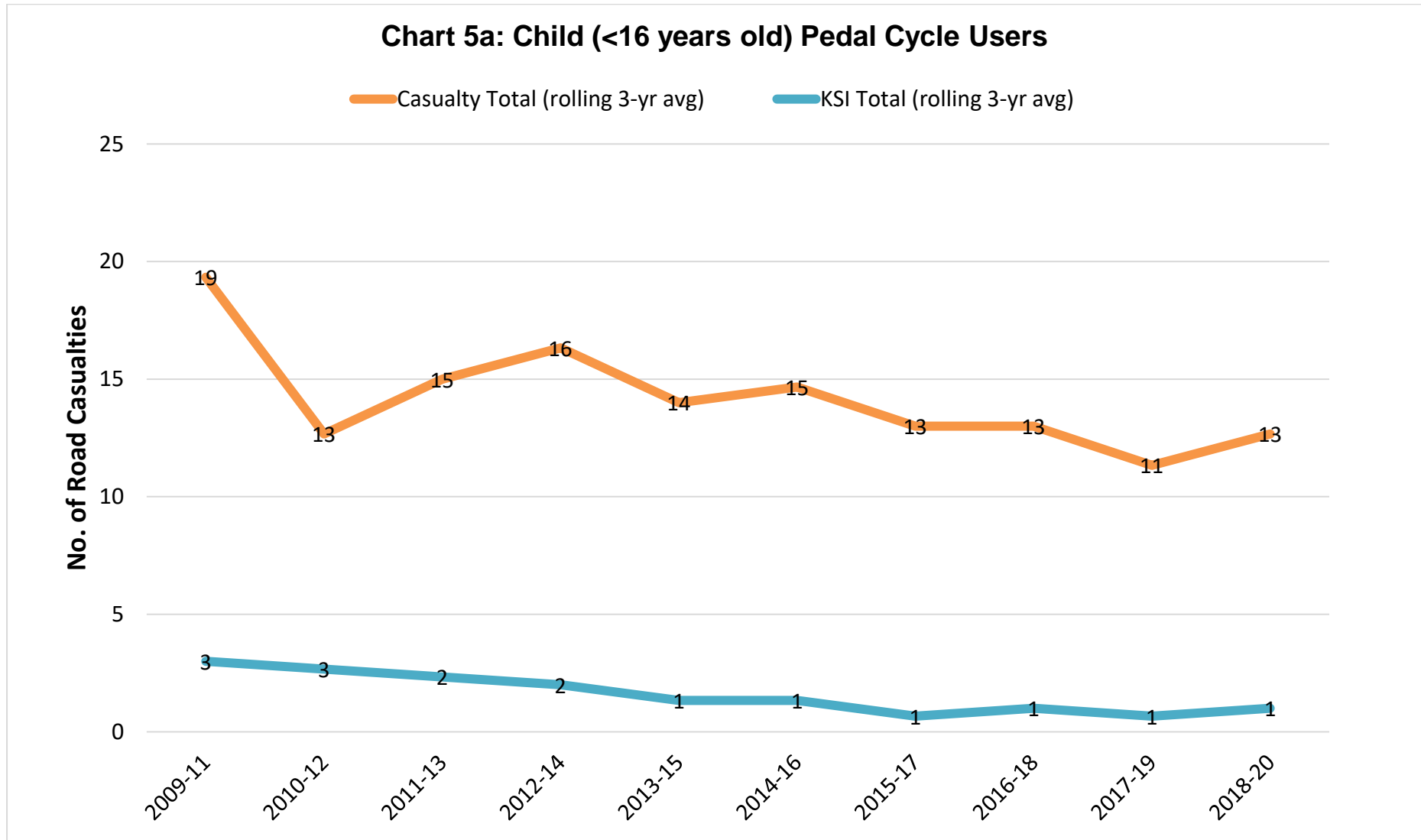
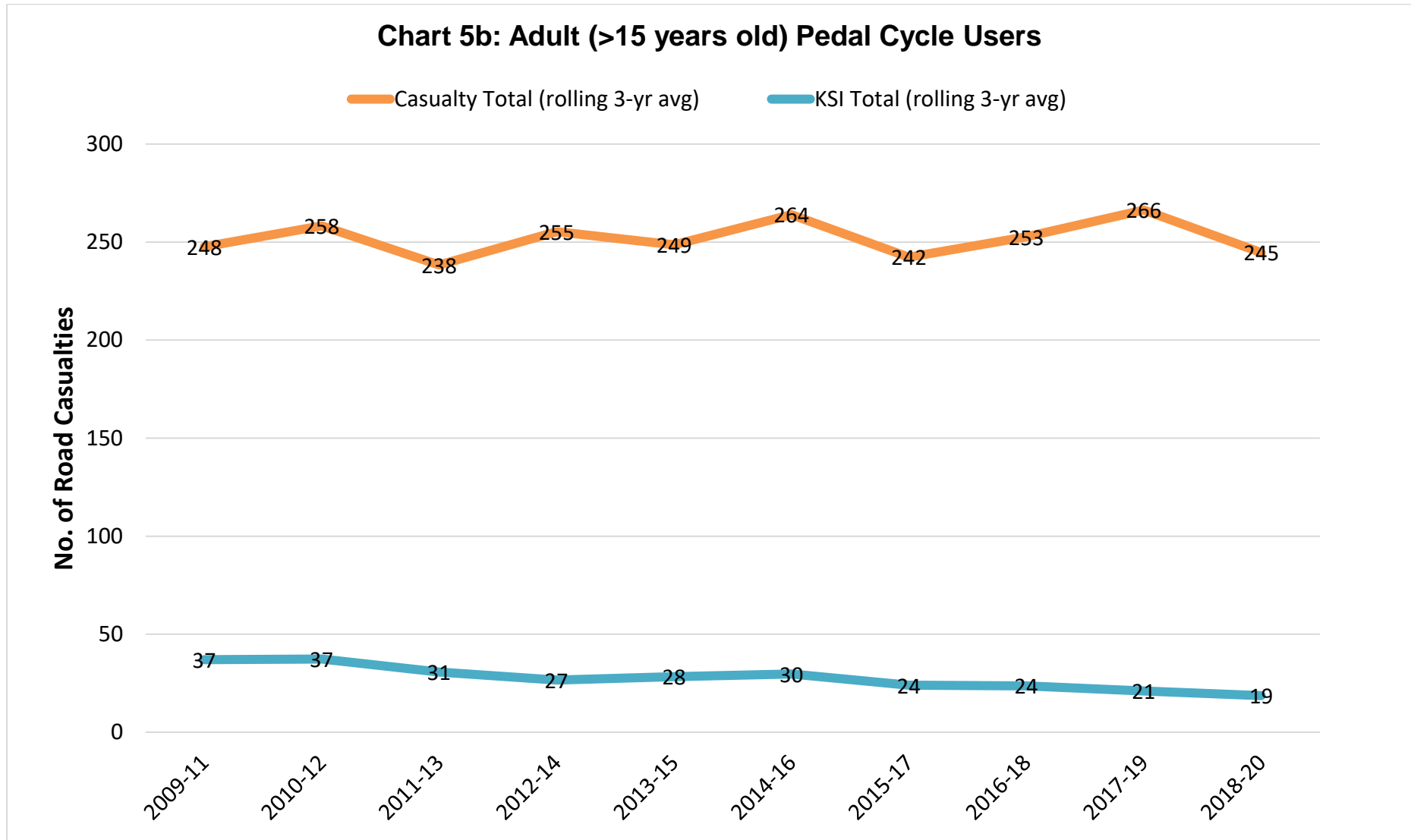


Chart 5b: Adult (>15 years old) Pedal Cycle Users



Motorcycle/Moped Users (a.k.a. Powered Two-Wheelers)

109 casualties (incl. 1 fatality)

There was a decrease of 19 or **15%** in the total number of Motorcycle/Moped User casualties from the year before, from 128 to **109**.

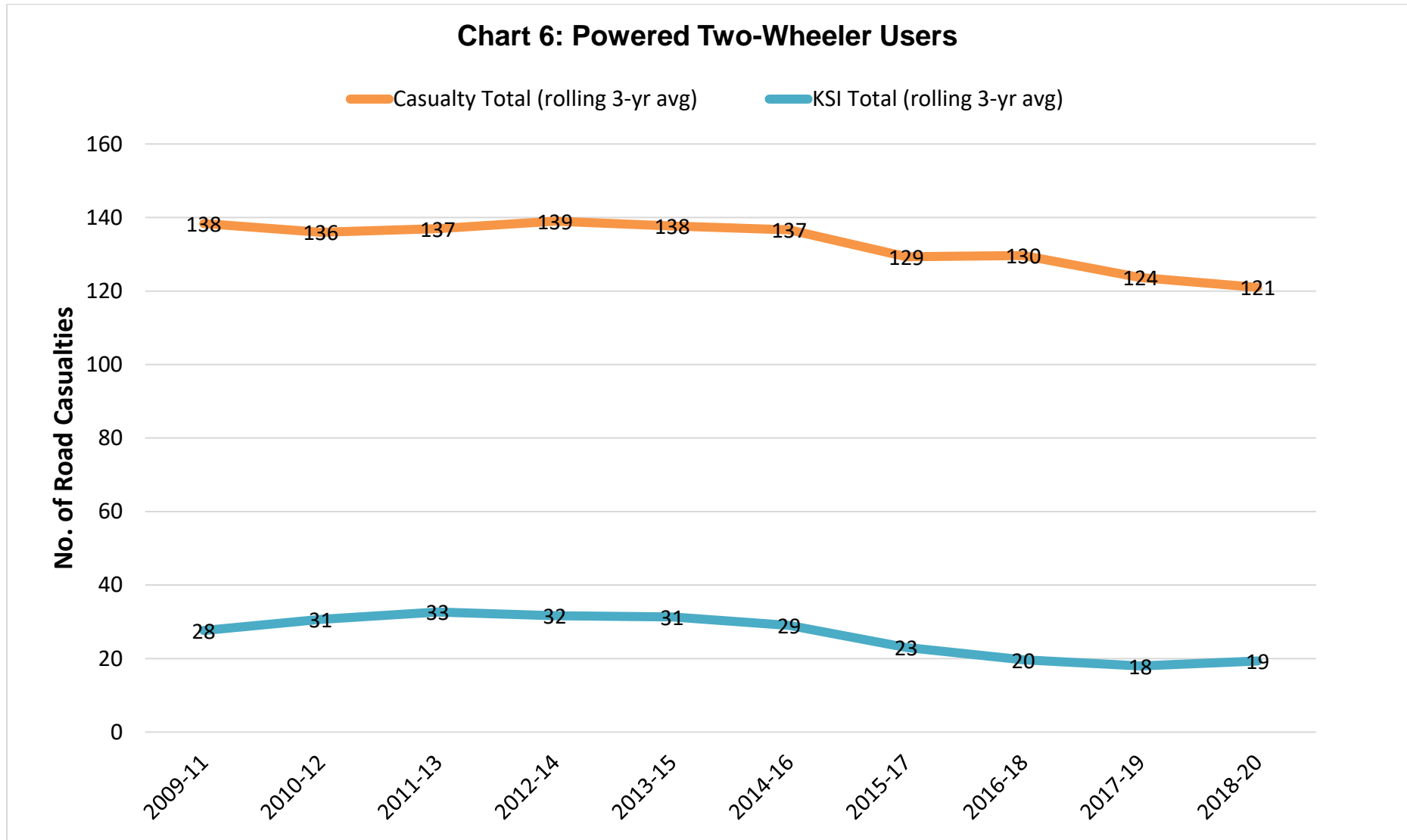
The proportion of Motorcycle/Moped User casualties killed or seriously injured was **15.6%**, and Motorcycle/Moped User casualties made up **29%** of all the KSI casualties.

Based on the 2018–20 motorcycle/moped user casualty rates per 100 thousand of the population, the **most vulnerable** age–group for Motorcycle/Moped Users is **16–19 year–olds** (predominantly male).

In 2020, males accounted for **85%** of all the Motorcycle/Moped User casualties. **52%** of the Motorcycle/Moped User casualties were under 34 years of age (predominantly male).

Historically, collisions that involve a motorcycle/moped user are predominantly with a passenger car. **Half** of collisions that involve a motorcycle/moped user take place at junctions.

Chart 6: Powered Two-Wheeler Users



Car Occupants (includes Taxis)

349 casualties (incl. 5 fatalities)

There was a decrease of 112 or **24%** in the total number of Car occupant casualties from the year before, from 461 to **349**.

The proportion of Car occupant casualties killed or seriously injured was **5.4%**, and Car occupant casualties made up **32%** of all the KSI casualties.

Based on the 2018–20 car-occupant casualty rates per 100 thousand of the population, the **most vulnerable** age-group for Car & Taxi Drivers is **30–34 and 40–44 year-olds**. While for Car & Taxi Passengers it is **15–19 year-olds**.

In 2020, 18–26 Year-olds made up **one quarter** of the Car occupant casualties. **Half** of the Car occupant casualties were aged between 18 and 37 years of age.

Male and female casualties each made up around **half** of the Car occupant casualty total. However, males tend to be more predominant as Car Driver casualties whereas females tend to be more predominant as Car Passenger casualties.

There were **26** Child Car occupant casualties (all passengers), **2 more** than the previous year, and children made up **7.45%** of the overall Car occupant casualty total.

There were **28** Elderly Car occupant casualties, **19 fewer** than the previous year, and elderly casualties made up **8%** of the overall Car occupant casualty total.

Chart 7a: Child (<16 years old) Car & Taxi Passengers

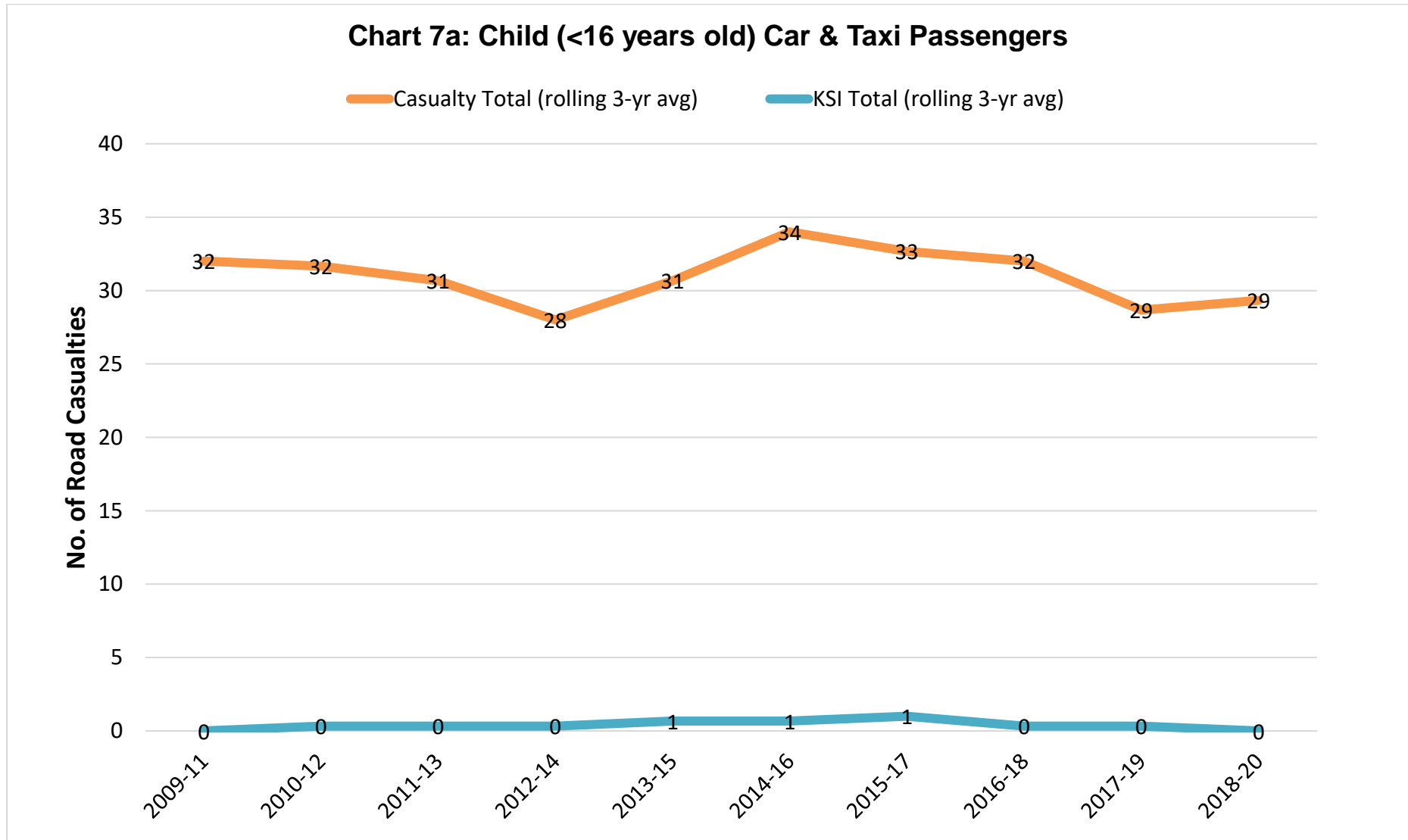


Chart 7b: Adult (>15 years old) Car & Taxi Passengers

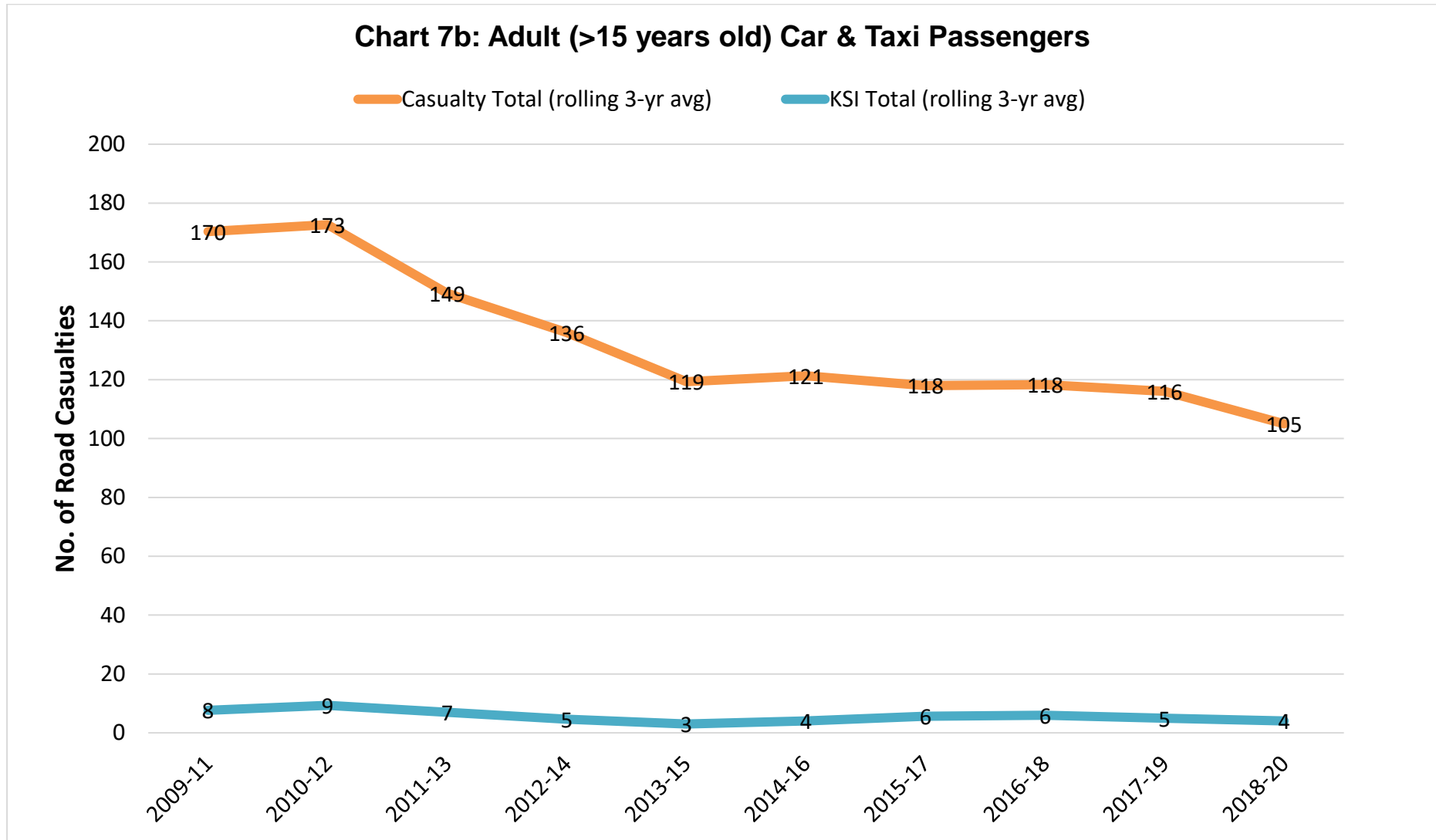


Chart 8a: Adult (>16 years old) Car & Taxi Drivers

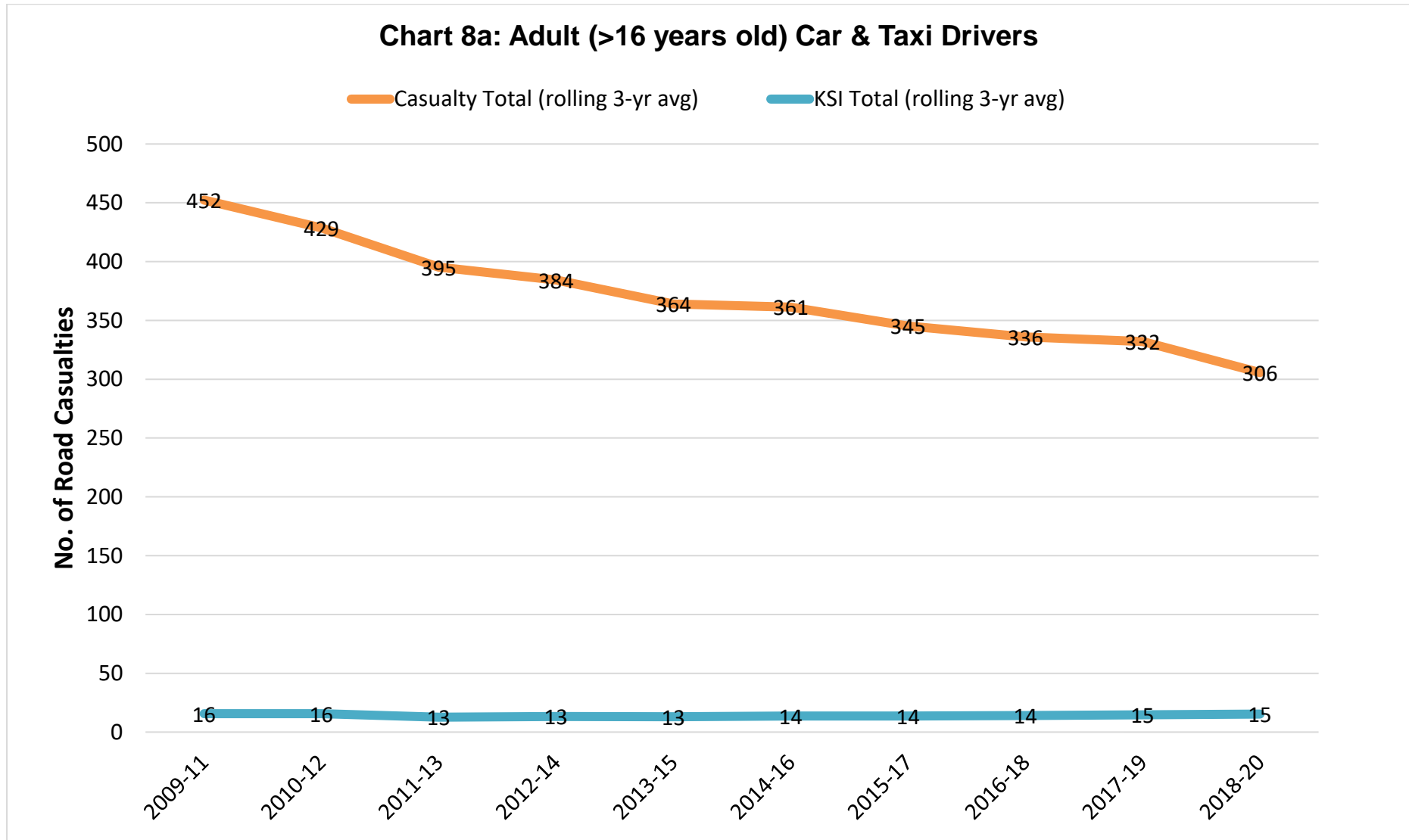
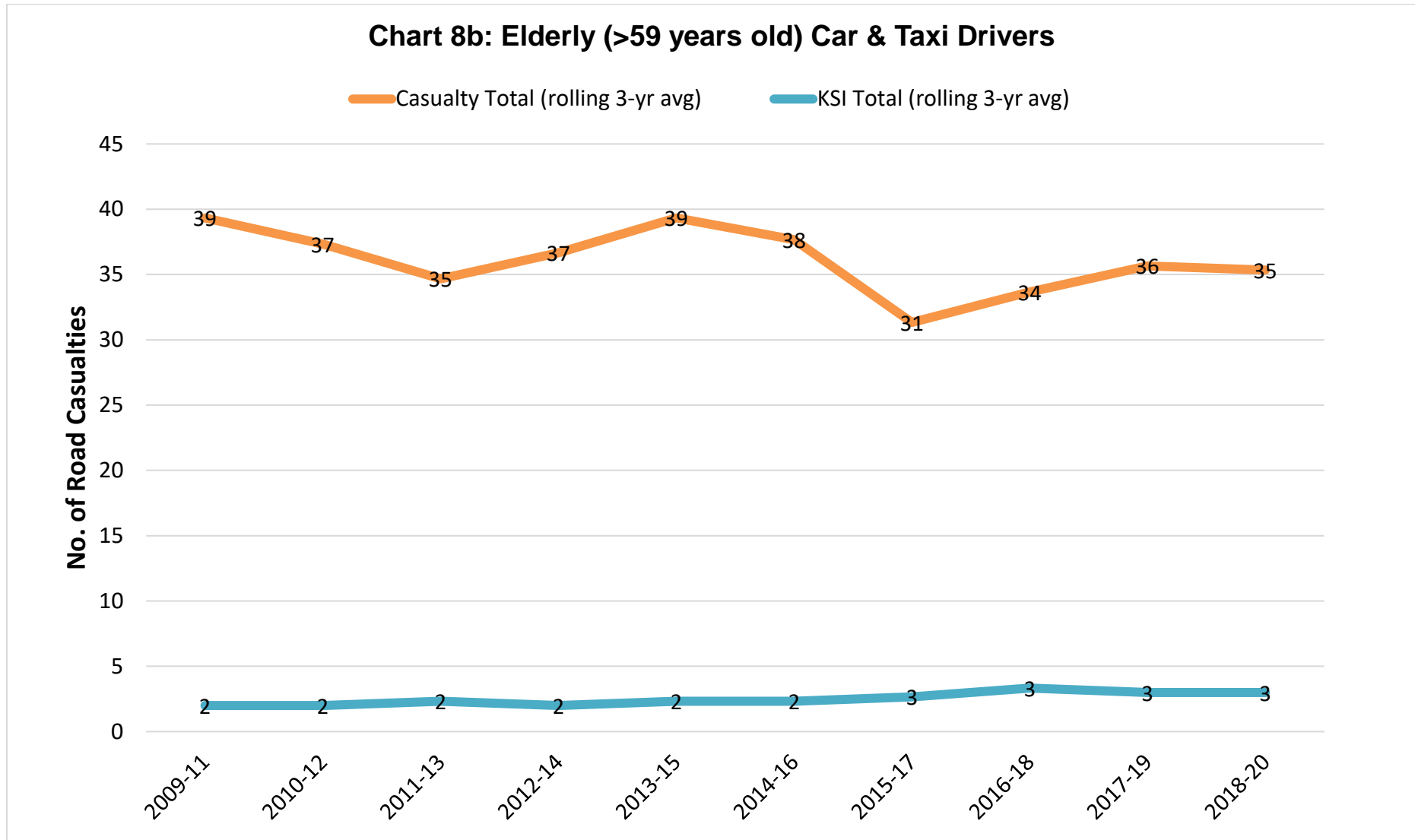


Chart 8b: Elderly (>59 years old) Car & Taxi Drivers



Annex 1a – Pedestrians: Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	2	2
5 – 6	0	0	0	0
7 – 11	0	1	10	11
12 – 15	0	0	15	15
All Children	0	1	27	28
16 – 16	0	0	5	5
17 – 20	0	1	5	6
21 – 30	0	2	21	23
31 – 40	0	1	16	17
41 – 50	1	4	11	16
51 – 60	0	1	12	13
61 – 70	0	0	4	4
71 +	0	1	11	12
All Adults	1	10	85	96
Age Unknown	0	0	0	0
All Ages	1	11	112	124
Expected number (per age group)	0.09091	1	10.1818	11.2727

Annex 1b – Cyclists: Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	1	1
5 – 6	0	0	0	0
7 – 11	0	0	3	3
12 – 15	0	1	9	10
All Children	0	1	13	14
16 – 16	0	0	1	1
17 – 20	0	0	8	8
21 – 30	0	5	58	63
31 – 40	0	2	48	50
41 – 50	0	3	14	17
51 – 60	0	0	12	12
61 – 70	0	0	3	3
71 +	0	0	4	4
All Adults	0	10	148	158
Age Unknown	0	0	1	1
All Ages	0	11	162	173
Expected number (per age group)	0	1	14.7273	15.7273

Annex 1c – Powered 2-Wheelers & Combinations (Riders & Pillion Passengers): Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	0	0
5 – 6	0	0	0	0
7 – 11	0	0	0	0
12 – 15	0	0	0	0
All Children	0	0	0	0
16 – 16	0	0	0	0
17 – 20	0	1	11	12
21 – 30	1	5	28	34
31 – 40	0	3	29	32
41 – 50	0	4	15	19
51 – 60	0	2	7	9
61 – 70	0	1	2	3
71 +	0	0	0	0
All Adults	1	16	92	109
Age Unknown	0	0	0	0
All Ages	1	16	92	109
Expected number (per age group)	0.09091	1.45455	8.36364	9.90909

Annex 1d – 4-Wheeled Cars & Taxis (Drivers): Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	0	0
5 – 6	0	0	0	0
7 – 11	0	0	0	0
12 – 15	0	0	0	0
All Children	0	0	0	0
16 – 16	0	0	0	0
17 – 20	1	0	15	16
21 – 30	0	0	68	68
31 – 40	1	4	56	61
41 – 50	0	2	45	47
51 – 60	1	4	22	27
61 – 70	0	0	13	13
71 +	1	2	5	8
All Adults	4	12	224	240
Age Unknown	0	0	1	1
All Ages	4	12	225	241
Expected number (per age group)	0.36364	1.09091	20.4545	21.9091

Annex 1e – 4-Wheeled Cars & Taxis (Passengers): Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	8	8
5 – 6	0	0	5	5
7 – 11	0	0	6	6
12 – 15	0	0	7	7
All Children	0	0	26	26
16 – 16	0	0	1	1
17 – 20	0	1	13	14
21 – 30	0	0	30	30
31 – 40	1	0	18	19
41 – 50	0	0	8	8
51 – 60	0	0	4	4
61 – 70	0	1	2	3
71 +	0	0	3	3
All Adults	1	2	79	82
Age Unknown	0	0	0	0
All Ages	1	2	105	108
Expected number (per age group)	0.09091	0.18182	9.54545	9.81818

Annex 1f – PCV/Minibus/Motor Caravan/Tram/Light Rail (Drivers & Passengers): Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	0	0
5 – 6	0	0	0	0
7 – 11	0	0	0	0
12 – 15	0	0	0	0
All Children	0	0	0	0
16 – 16	0	0	0	0
17 – 20	0	0	0	0
21 – 30	0	0	0	0
31 – 40	0	0	0	0
41 – 50	0	0	0	0
51 – 60	0	0	0	0
61 – 70	0	0	0	0
71 +	0	0	0	0
All Adults	0	0	0	0
Age Unknown	0	0	0	0
All Ages	0	0	0	0
Expected number (per age group)	0	0	0	0

Annex 1g – All Goods Vehicles (Drivers / Passengers): Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 - 4	0	0	0	0
5 - 6	0	0	0	0
7 - 11	0	0	0	0
12 - 15	0	0	0	0
All Children	0	0	0	0
16 - 16	0	0	0	0
17 - 20	0	0	1	1
21 - 30	0	0	6	6
31 - 40	0	0	1	1
41 - 50	0	0	1	1
51 - 60	0	1	0	1
61 - 70	0	0	1	1
71 +	0	0	0	0
All Adults	0	1	10	11
Age Unknown	0	0	0	0
All Ages	0	1	10	11
Expected number (per age group)	0	0.09091	0.90909	1

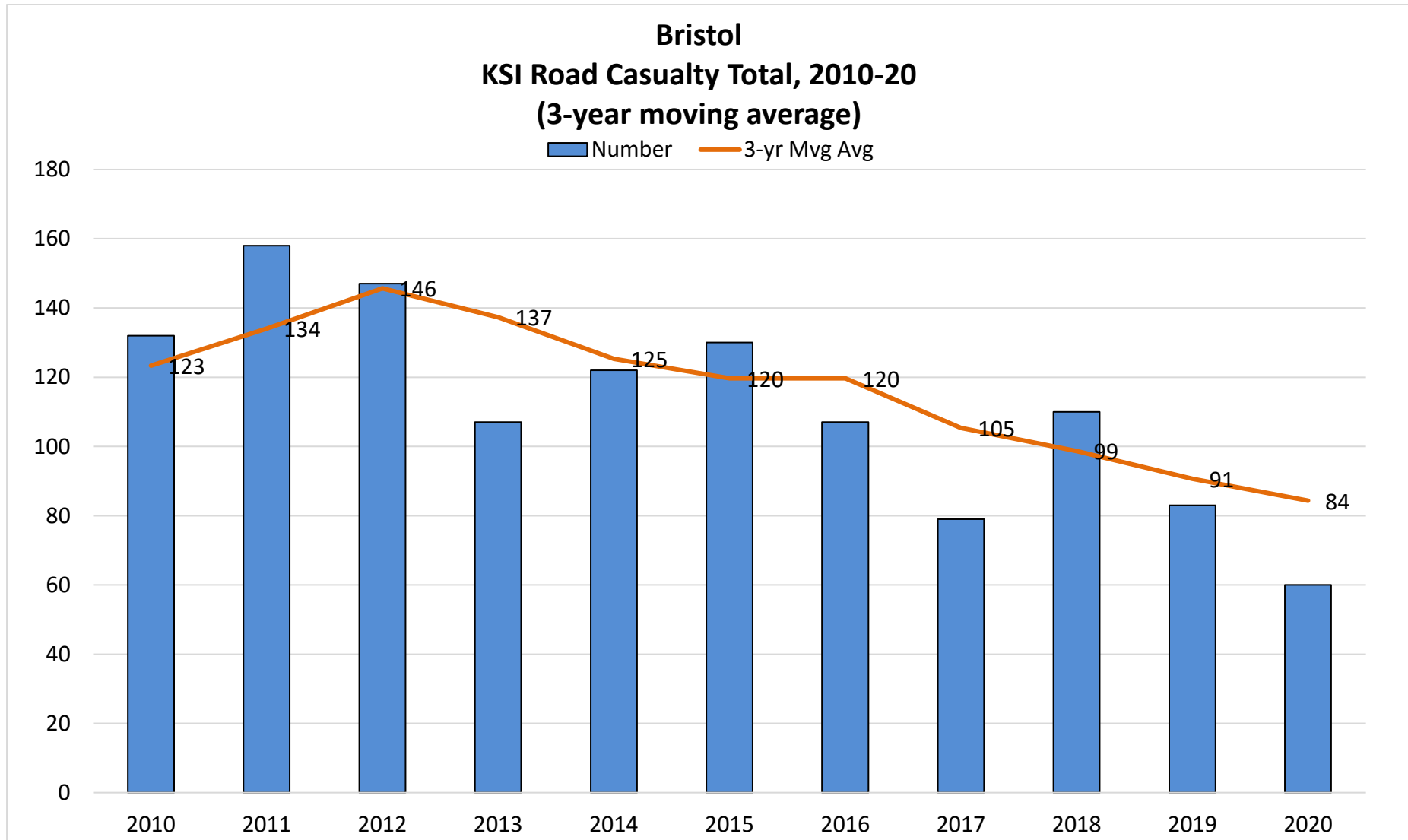
Annex 1h – Other Motor & Non-Motor Vehicles (Drivers / Passengers): Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	0	0
5 – 6	0	0	0	0
7 – 11	0	0	1	1
12 – 15	0	0	0	0
All Children	0	0	1	1
16 – 16	0	0	1	1
17 – 20	0	0	2	2
21 – 30	0	0	4	4
31 – 40	0	0	2	2
41 – 50	0	0	0	0
51 – 60	0	0	0	0
61 – 70	0	0	0	0
71 +	0	0	1	1
All Adults	0	0	10	10
Age Unknown	0	0	0	0
All Ages	0	0	11	11
Expected number (per age group)	0	0	1	1

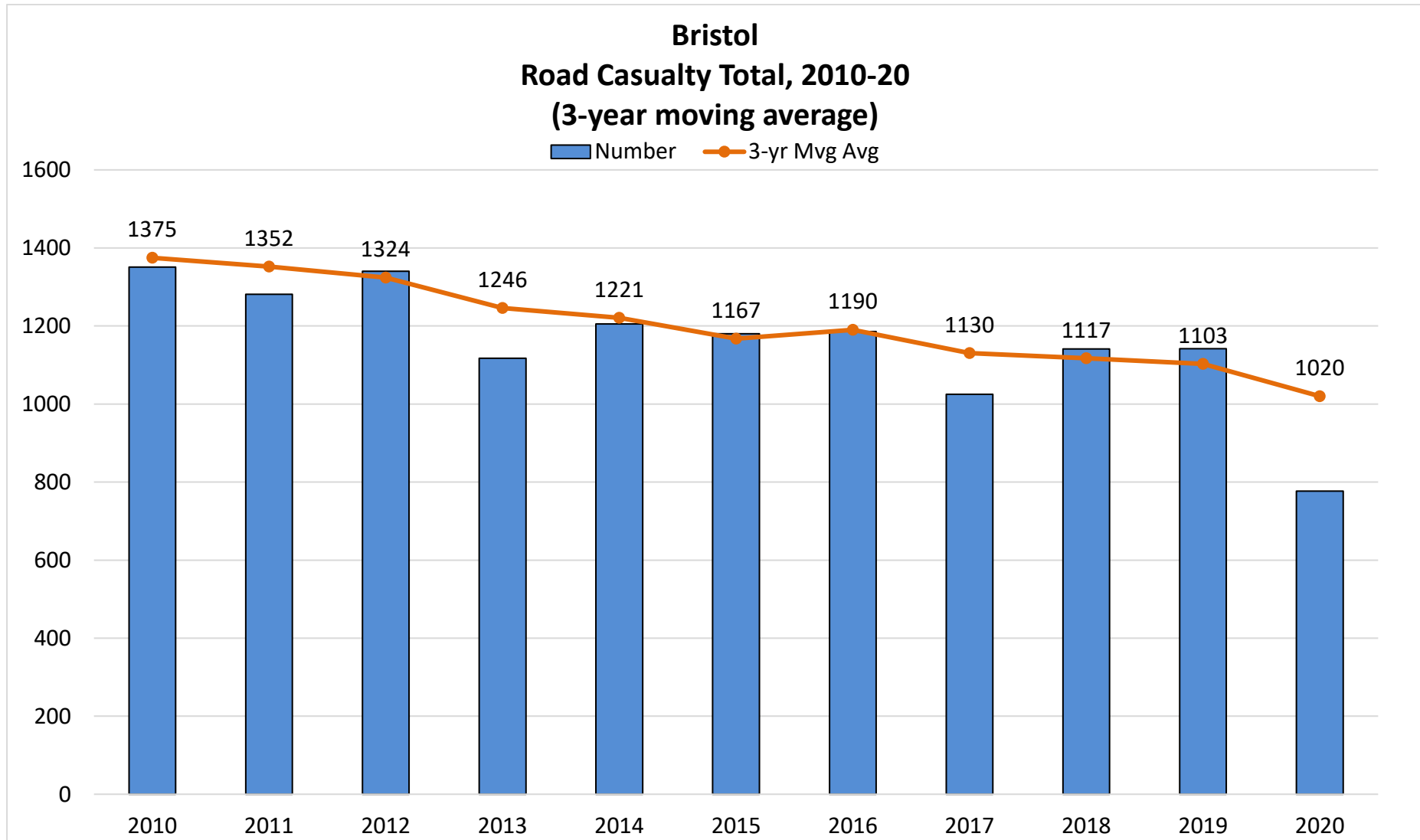
Annex 1i – All Road User Groups (Drivers/ Riders/ Passengers/ Pedestrians): Road Casualty Age-Profile Table (2020)

Age Group	Fatal	Serious	Slight	Sub Total
0 – 4	0	0	11	11
5 – 6	0	0	5	5
7 – 11	0	1	20	21
12 – 15	0	1	31	32
All Children	0	2	67	69
16 – 16	0	0	8	8
17 – 20	1	3	55	59
21 – 30	1	12	215	228
31 – 40	2	10	170	182
41 – 50	1	13	94	108
51 – 60	1	8	57	66
61 – 70	0	2	25	27
71 +	1	3	24	28
All Adults	7	51	648	706
Age Unknown	0	0	2	2
All Ages	7	53	717	777
Expected number (per age group)	0.63636	4.81818	65.1818	70.6364

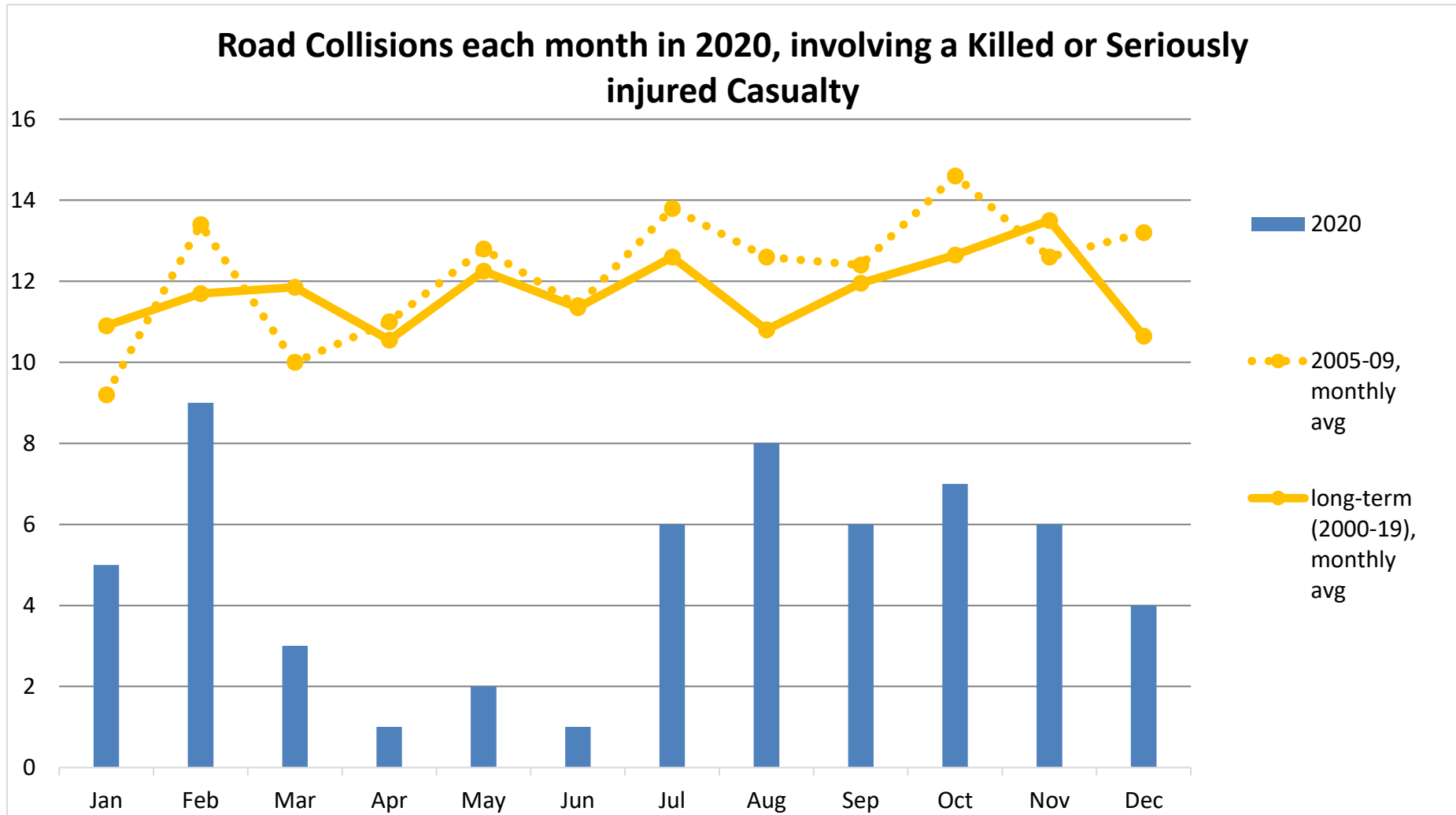
Annex 2a – Killed or Seriously Injured (KSI) Road Casualty change (3-year rolling average)



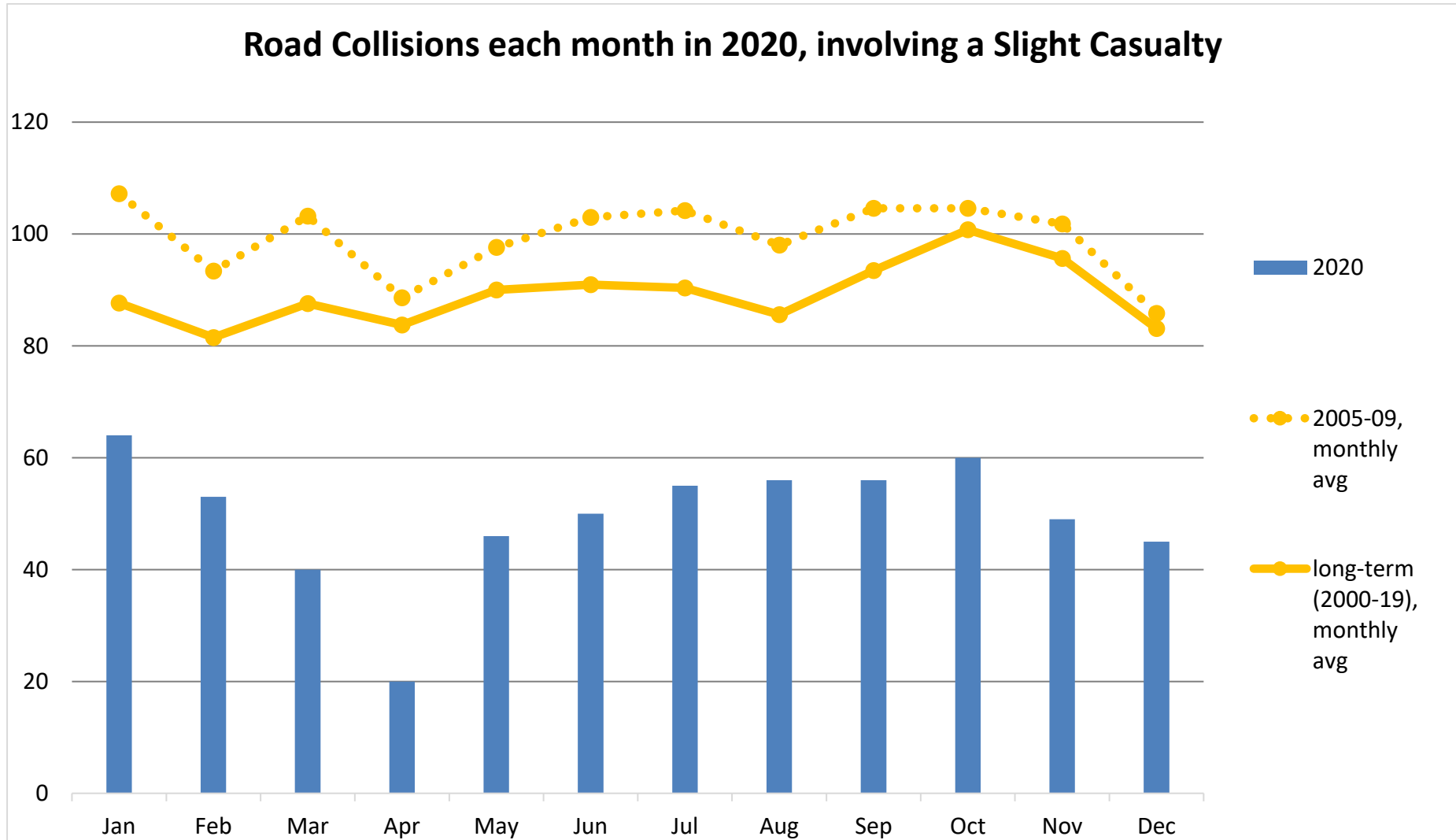
Annex 2b – All Severities of Road Casualty change (3-year rolling average)



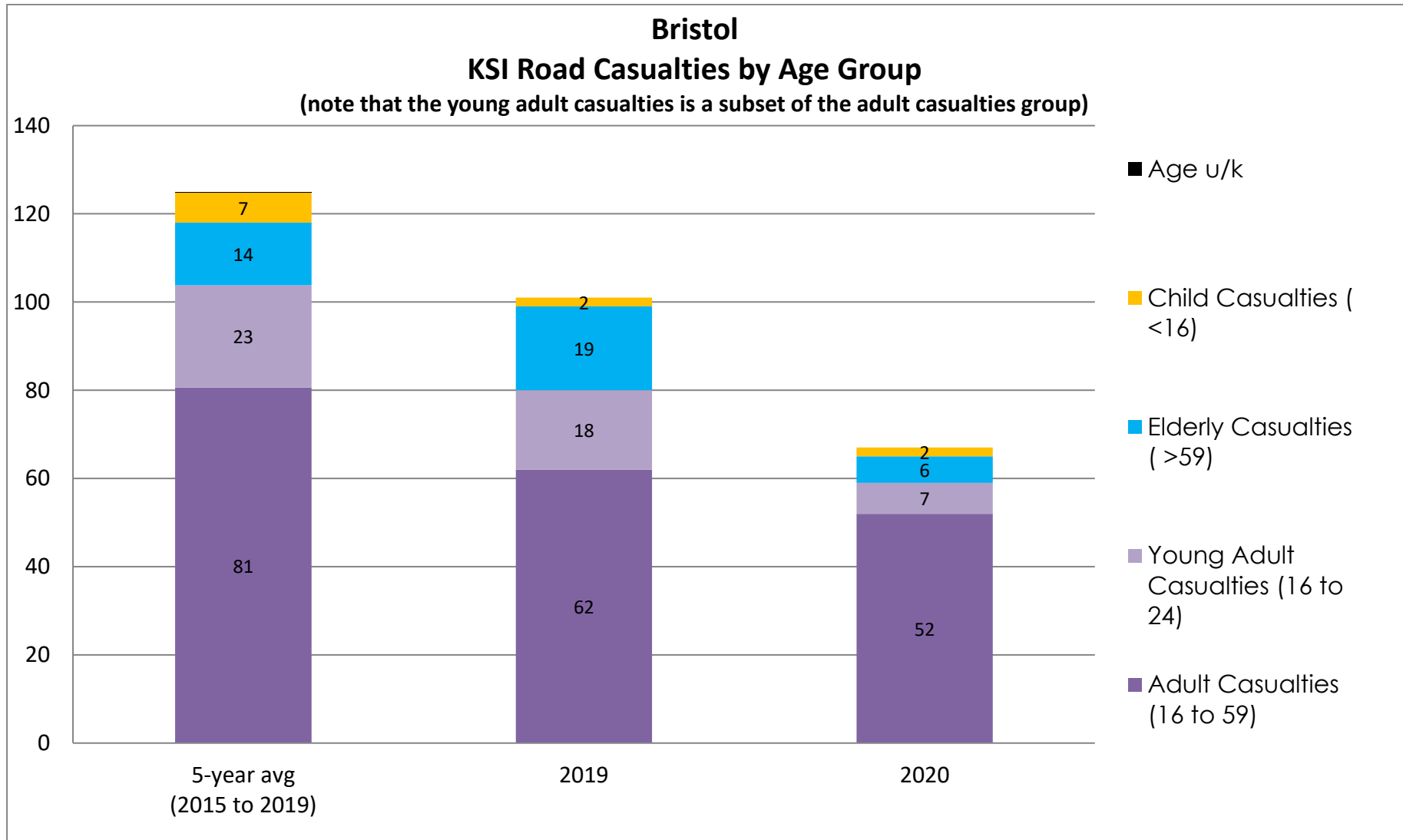
Annex 3a – Killed or Seriously Injured (KSI) Road Collisions each Month



Annex 3b – Slight Road Collisions each Month



Annex 4a - Killed or Seriously Injured (KSI) Road Casualties by Age Group



Annex 4b - All Road Casualties by Age Group

