



# CMF / CRF Details

CMF ID: 6385

## Implement black spot treatment programme

**Description:** A black spot treatment programme includes various infrastructural traffic safety improvements made to groups of locations in a particular area.

**Prior Condition:** *No Prior Condition(s)*

**Category:** Intersection geometry

**Study:** [Safety effects of an extensive black spot treatment programme in Flanders-Belgium, De Pauw et al., 2014](#)

Star Quality Rating:

8 Stars

[\[View score details\]](#)

### Crash Modification Factor (CMF)

**Value:** 0.81

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 0.08

### Crash Reduction Factor (CRF)

**Value:** 19 (This value indicates a **decrease** in crashes)

**Adjusted Standard Error:**

**Unadjusted Standard Error:** 8

## Applicability

**Crash Type:**

All

**Crash Severity:**

A (serious injury),B (minor injury),C (possible injury)

**Roadway Types:**

Not specified

**Number of Lanes:**

**Road Division Type:**

**Speed Limit:**

**Area Type:**

Urban

**Traffic Volume:**

**Time of Day:**

All

### *If countermeasure is intersection-based*

**Intersection Type:**

Roadway/roadway (not interchange related)

**Intersection Geometry:**

Not specified

**Traffic Control:**

Not specified

**Major Road Traffic Volume:**

**Minor Road Traffic Volume:**

## Development Details

**Date Range of Data Used:**

2000 to 2008

**Municipality:**

**State:**

**Country:**

Belgium

<b>Type of Methodology Used:</b>	2
<b>Sample Size Used:</b>	

### Other Details

<b>Included in Highway Safety Manual?</b>	No
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<b>Date Added to Clearinghouse:</b>	Mar-11-2015
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<b>Comments:</b>	Comparison group 1 (black spots treated after 2008) The number of crashes in the after period were not reported in this study, however, they have been recorded as 300 to give 10 points as a benefit of doubt for one or more of the following: (1) number of miles/sites in the reference/treatment group, (2) number of crashes in the references/treatment group, (3) reporting AADTs for the aggregate dataset but not for the disaggregate dataset used for CMF development.
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