Good practice for child cyclist safety

	Evidence statement	Transfer and Implementation points
Engineering	**Use of bicycle helmets leads to reduction in injuries.[27]**	- Correctly fitted bicycle helmets reduce the risk of head and brain injury by 63-88%.[27] - Parental knowledge and helmet availability, accessibility, cost and ease of use will impact both helmet use and proper use.[42] - Reducing costs of helmet through give-away programmes and discounts facilitates uptake and use.[43]
	Area wide engineering solutions and traffic calming measures (e.g., speed reduction zones) lead to reduction in child cyclist injuries and are cost effective.[27]	- Engineering modifications can be more effective when supported by educational and enforcement activities.[29]
	Area wide engineering solutions to reduce cyclist risk (including cycling lanes and pathways) may lead to injury reductions.[14]	- Engineering modifications can be more effective when supported by educational and enforcement activities.[29]
Enforcement	**Legislation of bicycle helmets leads to increased use.[14, 42]**	- Evaluation of mandatory bicycle helmet laws in Canada show a 45% reduction in the rates of bicycle-related head injury in provinces with legislation and in New Zealand there was a 19% reduction in head injuries among cyclists during the first three years of legislation.[38] - In several countries where legislation has been enacted it has not been done until high levels of helmet wearing have been attained in the population.[43] - Legislation takes time to produce the desired effect following implementation[42] and legislation is most effective when supported by educational activities.[29] - The effect of legislation appears smaller in areas with a higher baseline proportion of helmet use and areas with high socioeconomic status.[42] - Level of enforcement will impact effectiveness.[28] - Implementers of helmet legislation may wish to address concerns regarding decreased rider-ship following introduction of leglislation as those not in favour of legislation have stated this as an arguement against this strategy.[44]

Good practice for child cyclist safety, continued

	Evidence statement	Transfer and Implementation points
Education	**Community-based education / advocacy programmes around child helmet wearing lead to increased helmet wearing.[14,15,43,45]** **Case Example: Bicycle Helmet Initiative Trust, UK, Page 53** **Case Example: Bicycle Helmet Campaign, Denmark, Page 56**	- Important elements of community-based approaches are long-term strategy, effective focused leadership, multi-agency collaboration, involvement of the local community, appropriate targeting and time to develop a range of local networks and programmes.[15] - Programmes are more likely to be effective when they include provision of free helmets, are broad in scope as it relates to target audience and setting, involve parental participation and helmet wearing by riding partners (adults or other children).[43] - Younger children and girls show the greatest effect from campaigns.[27] - Successful interventions have included targeted and mass media education or children and parents, promotion and mandating of helmet wearing, seizure of bicycles of cyclists not wearing helmets and discounting the price of helmets, however it is not possible to isolate the effectiveness of each intervention.[45]
	Cycling skills training has shown promise in increasing knowledge and improving observed riding skills in the children who received training.[14] At this time there is no study directly linking skills training and reduction in injury.	- For children to ride safely in traffic requires that they are knowledgeable about traffic rules, can read and interpret signs, and have the necessary cognitive and motor skills.[46] - The most comprehensive programs have all incorporated helmet education, traffic rules, safety guidelines, and on-bike training into their curricula.[14] - Interventions that repeat the message in different forms and contexts are also more likely to succeed. Therefore, community based education programs that allow for repetition of bicycle safety messages, several opportunities for practice, and parental involvement, may represent a more effective approach to improving bicycle safety in children.[47] - It is possible that young children (under 10 years) may not be able to master the basic cognitive and motor skills necessary for the complex task of riding a bicycle on the road.[47]