Financial Services
Commission
of Ontario

Superintendent's Report on the Definition of Catastrophic Impairment in the Statutory Accident Benefits Schedule

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1. Executive Summary

The Government's 2010 automobile insurance reforms included a commitment to consult with the medical community on the definition of "catastrophic impairment" found in the *Statutory Accident Benefits Schedule* (SABS), a regulation under the *Insurance Act*. The Government directed FSCO to consult with the medical community and make recommendations on amendments to the definition, as well as on the qualifications and experience requirements for health professionals who conduct catastrophic impairment assessments.

To meet the Government's direction, FSCO issued a Request for Proposals (RFP) in accordance with the Province's procurement requirements (see Appendix B). That process led to the selection of Dr. Pierre Côté[1] to chair the Catastrophic Impairment Expert Panel. Dr. Côté played an active role in selecting the members of the Panel, which was comprised of expert academics and clinicians. The Panel conducted its review and made observations and recommendations, and presented to me in the attached reports[2], which reflect current scientific knowledge.

Upon review of the Expert Panel's Phase I Report and stakeholder submissions in response, I am now making recommendations to the Minister of Finance on amendments to the definition of catastrophic impairment set out in the SABS. The recommendations, detailed below, aim to improve the fairness and predictability of the process for determining catastrophic impairments.

I accept the Expert Panel's recommendations regarding the use of new measurement tools to improve the accuracy, relevance, clarity, validity, reliability and predictive ability of catastrophic impairment determinations. Specifically, the Panel recommends that the following clinical tools be used to assist with the determination of catastrophic impairment:

- American Spinal Injury Association (ASIA) classification for spinal cord injury
- Extended Glasgow Outcome Scale (GOS-E) for traumatic brain injury in adults
- Spinal Cord Independence Measure for severe difficulty with walking
- Global Assessment of Function (GAF) for psychiatric disorders

In addition, I accept the Expert Panel's recommendations for the introduction of two new initiatives related to the definition: automatic designation and interim benefits, each linked to particular types of impairments.

[1] Dr. Pierre Côté is an internationally recognized scientist in the Division of Health Care and Outcomes Research at the Toronto Western Research Institute.
[2] Recommendations for Changes to the Definition of Catastrophic Impairment, September 2, 2011 (Phase I Report) (originally released on April 8, 2011); Recommendations for Training, Qualifications and Experience for Catastrophic Impairment Assessors, June 21, 2011 (Phase II Report).

- The Panel recommends automatic designation of catastrophic impairment for children (claimants under age 18) who are suffering from a serious brain injury caused by an accident and have been admitted to a major trauma centre. The Panel noted that a long period of waiting for a final determination could impose unnecessary stress on families. Automatic designation would give claimants immediate access to the appropriate benefits. Furthermore, due to the fact that assessments would no longer be needed, this approach should reduce assessment and other transaction costs to the insurance system.

- The Panel recommends the introduction of interim benefits for claimants who unequivocally require intensive and prolonged rehabilitation. This would ensure that these individuals have prompt access to the rehabilitation services necessary to maximize their chances of achieving the fullest possible recovery. A final determination of catastrophic impairment would be deferred until the natural course of the condition has unfolded. For example, an adult who sustains a very severe brain injury would be able to access interim benefits for six months, at which point an assessment would be conducted to make a final determination. While this idea is a good one, in order to provide seriously injured individuals with sufficient access to benefits until they can attain permanent catastrophic impairment designation, I recommend a monetary cap of $50,000 for interim benefits which would bridge claimants until a final determination is made while avoiding possible abuse.

The Panel is of the opinion that the current system leads to inconsistent catastrophic impairment determinations and frequently gets the diagnosis wrong. The proposed changes would make the process more accurate, consistent and objective, and would also speed up determinations and reduce transaction costs and disputes.

The Panel's approach of incorporating current evidence-based medicine is consistent with the approach the Government has directed for another project, namely the development of a medical evidence-based treatment protocol to replace the Minor Injury Guideline (MIG).

I have also reviewed the Expert Panel's Phase II Report on the qualifications and experience for catastrophic impairment assessors, designed to standardize and maximize the quality of assessments. I have accepted the Panel's recommendations in this area, with some modifications.

Automobile insurance in Ontario is a closed system whereby all costs including accident benefits, third party liability, and property damage are passed on to consumers through premiums. As part of this closed insurance system drivers are funding private health care services. An evaluation of the system must seek a balance between the needs of claimants and the affordability of insurance premiums. While automobile accident victims deserve to be treated fairly, thought must also be given to keeping the system sustainable. The work of the Panel reflects the need to maintain a proper balance.

2. Introduction

2.1 Protection of the Catastrophically Impaired

The standard for providing health care in the Ontario automobile insurance system is that the goods and services must be reasonable and necessary. There is no express requirement for providers to follow evidence-based medicine. This approach is inconsistent with much of the Ontario health care system.

The recommendations in this Superintendent's Report are intended to introduce elements of evidence-based medicine to the Ontario automobile insurance system. This focus supports the principle of ensuring that those who sustain the most serious injuries from automobile accidents are treated appropriately. This is consistent with the approach being used to develop an evidence-based treatment protocol to replace the MIG.

The review of the catastrophic impairment definition was part of the Government's November 2009 announcement on automobile insurance reforms. At that time, the Government committed to consult with the medical community on changes to the definition. In December 2010, a Panel chaired by Dr. Pierre Côté was appointed to review the definition and also to make recommendations on qualifications and experience requirements for practitioners who assess catastrophic impairments. The Panel presented its conclusions in two reports in April and June of 2011. The reports were subsequently published on FSCO's website and comments were invited. FSCO received 33 stakeholder submissions in response to the Panel's recommendations.

The Panel found that the existing definition of catastrophic impairment has over time created considerable uncertainty in the process of determining catastrophic impairments, often leading to inconsistent results, inaccurate diagnoses, and disputes. These findings are in line with comments made by many stakeholders during the Five Year Review of the automobile insurance system conducted by FSCO in 2008-2009 which formed the basis for the government's auto insurance reforms announced in November of 2009.

The changes recommended in this Report, which are largely based on the Panel's work, reflect current scientific knowledge and judgement about measuring catastrophic impairments. The Panel calls for the use of clinical tools that are more valid and reliable and have shown better predictive ability than those presently employed.

The proposed measures could make the system more accurate, consistent and fair and reduce the likelihood of incorrect diagnosis. They could assist clinicians in identifying claimants with catastrophic impairments earlier and more objectively, ensuring that the most seriously impaired claimants are treated appropriately. By strengthening the scientific basis for assessments, the changes should reduce the number of disputes.

Apart from amendments to the definition itself, I am also proposing two new elements related to the definition: automatic catastrophic impairment designations and interim benefits. These proposals are based on the Panel's recommendations.

- Introduce automatic designation of catastrophic impairment for children (those under age 18) who are suffering from a serious traumatic brain injury and have been admitted to a major trauma centre. Earlier designation would provide the claimant with earlier access to the higher tier of benefits, compared with up to a two year wait, as is commonly the case today. Assessments would not be needed, resulting in lower costs for both the claimant and the insurer.

- Introduce interim benefits for claimants who unequivocally require intensive and prolonged rehabilitation. This would ensure that these individuals, for a limited period of time, have access to the medical and rehabilitation services necessary to maximize their chances of achieving optimal recovery. A monetary cap of $50,000 on interim benefits would provide seriously injured individuals with sufficient access to benefits until they can attain permanent catastrophic impairment designation while avoiding possible abuse.

During this review, some stakeholders suggested that the thresholds in the proposed definition should be lowered to allow more claimants to access the higher tier of benefits available to those with the catastrophic impairment designation. In their submissions, these stakeholders suggested that the lower thresholds were needed to offset the September 1, 2010 reforms, which decreased the standard coverage medical and rehabilitation benefits for non-catastrophic impairments to $50,000. I do not accept the logic of this line of reasoning. Moreover, the work of the Panel was not intended to reverse the changes made in the September 1, 2010 reforms, but rather to build on them.

2.2 History of the Ontario Catastrophic Impairment Definition

In 1996, Bill 59 reforms introduced two tiers of accident benefits, with the higher tier for claimants whose impairments are found to be “catastrophic”. The SABS set out the definition for “catastrophic impairment”.

The definition used the Glasgow Coma Scale (GCS) to determine catastrophic brain impairment. At that time, from stakeholder feedback, it was understood that the GCS was a poor predictor of how severe a permanent brain injury caused by trauma would be. However, there was no better alternative available. Over the years, stakeholders have continued to express dissatisfaction with the definition of catastrophic impairment as it pertains to traumatic brain injuries.

The *American Medical Association Guides to the Evaluation of Permanent Impairment* (the AMA Guides), 4th edition (published in 1993), were incorporated into the SABS definition by reference in 1996. The AMA Guides provide health professionals with a format for analyzing, assessing and recording functional impairments to all parts of the body. A percentage value is assigned to each impairment present, and then a formula set out in a chart is applied to combine them into a final “whole person impairment”. If this “whole person impairment” is 55% or above, the SABS prescribes that the claimant is catastrophically impaired.

Mental or behavioural disorders have a separate classification in the AMA Guides. The current definition in the SABS parallels this by separating out mental and behavioural disorders as qualifying on their own for the catastrophic impairment designation.

Minor changes to the definition were made in 2003 under Bill 198 and in September 2010 single-limb amputations were included. Otherwise the definition has remained virtually the same over the past 15 years.

In 2008, the Superintendent launched the first Five Year Review of the automobile insurance system. Based largely on the review, the Government in November 2009 announced a package of 41 reforms. (Recommendations relating to the catastrophic impairment definition are detailed in Appendix H). The November 2009 package also included a commitment to consult with the medical community to review the definition of catastrophic impairment.

2.3 Legal Definition or Medical Definition

The Panel was of the opinion that "catastrophic impairment is not a medical entity; rather, it is a legal entity which defines a point along the medical spectrum of impairment severity".[3] The Panel asserted that the definition, by utilizing a medical basis, should ensure that outcomes of the designation process are fair, reliable, accurate, consistent and predictable. This is more likely to happen when science-based measurement tools are used, and used by professionals trained to apply them.

Some stakeholders have questioned whether the definition of catastrophic impairment is a legal or a medical definition. I believe that it should be a legal definition that relies on objective medical evidence. The Panel was asked to review and make recommendations on this definition. The Panel's recommendations reflect the current medical science, which responds to the direction provided by the government in the 2009 auto insurance reform package.

The original intent of the definition was to use medical evidence to determine catastrophic impairment but over the years the definition as liberally interpreted by courts and arbitrators has evolved from its original intent. According to the Panel, numerous court decisions have dealt with the definition of catastrophic impairment and some of these have rendered rulings that have not been based on scientific evidence or objective measurement. While attempting to maintain fairness, courts and arbitrators have created uncertainty. Moreover, medical and scientific knowledge regarding these injuries and their evaluation has evolved, further complicating the issues. All this uncertainty has resulted in further legal challenges and several cases are still before the courts.

[3] Appendix 1, Survey 1 – Panel Report, p. 13.

2.4 Catastrophic Injury Statistics

To get a better understanding of the impact of the catastrophic impairment definition on the automobile insurance system, FSCO conducted a survey of insurance companies. Ontario insurers were asked for their data on claimants who suffered a catastrophic injury as a result of an automobile accident. The data was requested under the authority of section 31 of the *Insurance Act.*

The survey required insurers to identify the number of catastrophically impaired claimants from automobile accidents that occurred in the calendar years 2002 to 2006. After 2006, the data is still incomplete due to the length of time required for a catastrophic impairment application to be submitted and the duration for disputes regarding the application to be resolved.

For the purposes of this survey, insurers were instructed to count each claimant separately if more than one person incurred a catastrophic injury in the same accident. A catastrophic injury ("CAT") claimant is a claimant who has been specifically identified as suffering a catastrophic impairment or a case where the insurer has made reserves on the claim as possibly catastrophic despite an ongoing dispute.

The data requested applies only to private passenger vehicles and does not include other types of vehicles. The results below are preliminary.

The survey covered 23 companies which represent 77.24% of the market based on written premiums. These numbers were then extrapolated to estimate the number of catastrophic claimants for the entire market.

Accident Year	CAT claimants for surveyed insurers	CAT claimants extrapolated for entire market	Number of claimants with bodily injuries*	Total number of accidents in year**	CAT claimants/ 1,000 bodily injury claimants	CAT claimants/ 1,000 accidents
2002	376	487	89,383	244,642	5.45	1.99
2003	362	469	80,213	246,463	5.85	1.90
2004	383	496	60,430	231,548	8.21	2.14
2005	457	592	59,570	230,258	9.94	2.57
2006	461	597	61,030	216,247	9.78	2.76

Source: *Ontario Statutory Accident Benefits Statistical Plan (OSABSP)
**Ontario Road Safety Annual Report published by the Ministry of Transportation (ORSAR)

The data shows that while the number of accidents and bodily injury claimants has been declining, the number of catastrophic claimants has increased. Where in 2002 there were 5.45 catastrophic claimants per 1,000 bodily injury claimants, by 2006 the ratio had increased to 9.78. This may be related to the evolving definition arising from decisions by arbitrators and the courts.

Following are specific recommendations that take into consideration current medical evidence, the evolving interpretation of the definition by courts and arbitrators, and trends in accident and claims frequency.

3. Superintendent's Recommendations

3.1 Paraplegia/Tetraplegia

Current SABS	Panel Recommendation
3. (2 (a) paraplegia or quadriplegia;	3. 2 (a) paraplegia or tetraplegia that meets the following criteria i and ii, and either iii or iv: i. The Insured Person is currently participating in, or has completed a period of, in-patient spinal cord injury rehabilitation in a public rehabilitation hospital; and ii. The neurological recovery is such that the permanent ASIA Grade can be determined with reasonable medical certainty according to the American Spinal Injury Association Standards (*Marino RJ et al. ASIA Neurological Standards Committee 2002. International standards for neurological classification of spinal cord injury. J Spinal Cord Med 2003; 26(Suppl 1): S50–S56*) and iii. The permanent ASIA Grade is A, B, or C or, iv. The permanent ASIA Grade is or will be D provided that the insured has a permanent inability to walk independently as defined by scores 0–5 on the Spinal Cord Independence Measure item 12 (indoor mobility, ability to walk <10 m) (*Catz A, Itzkovich M, Tesio L, et al. A multicenter international study on the spinal cord independence measure, version III: Rasch psychometric validation. Spinal Cord 2007; 45: 275–91*) and/or requires urological surgical diversion, an implanted device, or intermittent or constant catheterization in order to manage the residual neuro-urological impairment.
Superintendent's Recommendation	
I accept the Expert Panel's recommendation to introduce the American Spinal Injury Association (ASIA) scale as part of the definition. However, I recommend that participation in, or completion of, an in-patient spinal cord injury rehabilitation in a public rehabilitation hospital is not necessary in addition to the other requirements.	

During the Five Year Review, some stakeholders suggested that the references to paraplegia and quadriplegia within the definition may no longer be appropriate. Complete paraplegia and quadriplegia (now referred to as tetraplegia) are rare and these injuries are better measured with reference to the severity of spinal cord injury. The Panel agrees.

Scientific knowledge about the classification of spinal cord injuries has grown in the past 15 years. According to the Expert Panel, the American Spinal Injury Association (ASIA) classification of spinal cord injury has become the standard in medical practice. The ASIA system groups patients into five categories of severity that range from complete (Grade A) to normal (Grade E).

The Panel strongly supports the use of the ASIA classification for the purpose of catastrophic impairment determination because it is commonly used in routine spinal cord injury care. Moreover, it involves a standardized examination protocol, which is less subjective than using the AMA Guides. In the Panel's opinion, the ASIA system can be expected to produce more reliable and consistent results from assessor to assessor and would more effectively identify catastrophically impaired claimants.

The Panel mentioned transient paralysis (also known as spinal shock) in its Report. By definition, transient paralysis is an acute condition that generally has a favourable outcome. The Panel found that transient paralysis is not a catastrophic impairment and stressed that the ASIA Grade must not be determined until recovery has reached a point where this can be done with reasonable medical certainty.

I accept the Panel's view that the ASIA scale is a reliable and consistently predictive measure of spinal cord injuries and accept its use in determining catastrophic impairments. While I recognize that what is termed an "incomplete" spinal cord injury – where some motor functions remain – is a serious condition, some incomplete spinal cord injuries should not qualify as catastrophic. Therefore, I also accept the thresholds set by the Panel as reasonable.

As several stakeholders pointed out, some spinal cord injury conditions are so severe that the claimants will not be admitted to an in-patient rehabilitation program since their condition cannot and will not improve. Nonetheless these claimants are without a doubt catastrophically impaired. Therefore, I accept the stakeholders' position that the requirement for completion of an in-patient rehabilitation period in addition to meeting the ASIA scale threshold is not necessary.

3.2 Severe Impairment of Ambulatory Mobility

Current SABS	**Panel Recommendation**
3. (2) (b) the amputation of an arm or leg or another impairment causing the total and permanent loss of use of an arm or a leg;	3. 2 (b) Severe impairment of ambulatory mobility, as determined in accordance with the following criteria: i. Trans-tibial or higher amputation of one limb, or ii. Severe and permanent alteration of prior structure and function involving one or both lower limbs as a result of which: a) The Insured Person is currently participating in, or has completed a period of in-patient rehabilitation in a public rehabilitation facility, and b) It can be reasonably determined that the Insured Person has or will have a permanent inability to walk independently and instead requires at least bilateral ambulatory assistive devices [mobility impairment equivalent to that defined by scores 0–5 on the Spinal Cord Independence Measure item 12 (indoor mobility, ability to walk <10 m) (*Catz A, Itzkovich M, Tesio L, et al. A multicenter international study on the spinal cord independence measure, version III: Rasch psychometric validation. Spinal Cord 2007; 45: 275–91*).
Superintendent's Recommendation	
I accept the Expert Panel's recommendation regarding claimants with severe difficulty walking, except that the requirement for participation in, or completion of, an in-patient rehabilitation program in a public rehabilitation hospital is not necessary.	

The Panel recommends significant changes to the clause relating to amputations. Upon review, the Panel concluded that the current definition does not accurately describe the range of injuries that should be considered catastrophic impairments. The current definition focuses on amputations and does not include similar injuries such as burns or crush injuries that can have a very similar functional impact on a claimant. The Panel also recommends different approaches to defining catastrophic impairments related to upper and lower limbs.

For upper extremity injury, the Panel recommends using the AMA Guides. The Panel found that any impairment involving the loss of use of an upper limb would result in 55% or more whole person impairment and can therefore be determined using the AMA Guides. However, the Panel proposes a different approach for claimants who have severe difficulty walking due to an injury. Under the AMA Guides, an injury confined to the lower extremities does not result in 55% whole person impairment. Even two below-knee amputations do not reach the 55% level. This is a problem given the lifetime costs for the purchase, maintenance and replacement of one or more prosthetic limbs, as well as the obviously serious challenges to independence stemming from such an impairment. Rather than adjusting the scoring tools otherwise approved for use in the definition, the Panel recommends specific criteria to determine catastrophic impairment related to severe difficulty with walking.

The Panel proposes that claimants with below-knee or higher amputation of one leg be deemed to have a catastrophic impairment. Otherwise, the Panel recommends a threshold for claimants with severe and permanent alteration of the structure and function of one or both legs. This should be the permanent inability to walk independently, based on the Spinal Cord Independence Measure (SCIM).

3.3 Blindness

Current SABS	**Panel Recommendation**
3.2 (c) the total loss of vision in both eyes	3. 2 (c). Legal blindness in both eyes due to structural damage to the visual system. Non-organic visual loss (hysterical blindness) is excluded from this definition.
Superintendent's Recommendation	
I accept the Expert Panel's recommendation on blindness, with the addition of reference to the 20/200 threshold.	

In terms of blindness, the Panel recommended only minor clarifications to the existing definition. Specifically, an injury qualifies as a catastrophic impairment if there is structural damage to the visual system. Therefore, hysterical blindness (non-organic visual loss) would be excluded under this clause of the definition, though it could qualify as a psychiatric impairment.

Upon review of stakeholder requests for clarification of the term "legal blindness", I recommend including the visual acuity threshold of 20/200.

3.4 Traumatic Brain Injury in Adults

Current SABS	Panel Recommendation
3.2. (d) subject to subsection (4), brain impairment that results in, (i) a score of 9 or less on the Glasgow Coma Scale, as published in Jennett, B. and Teasdale, G., *Management of Head Injuries*, Contemporary Neurology Series, Volume 20, F.A. Davis Company, Philadelphia, 1981, according to a test administered within a reasonable period of time after the accident by a person trained for that purpose, or (ii) a score of 2 (vegetative) or 3 (severe disability) on the Glasgow Outcome Scale, as published in Jennett, B. and Bond, M., *Assessment of Outcome After Severe Brain Damage*, Lancet i:480, 1975, according to a test administered more than six months after the accident by a person trained for that purpose;	3. 2. (d) Traumatic Brain Injury in Adults (18 years of age or older): ii. Catastrophic impairment, based upon an evaluation that has been in accordance with published guidelines for a structured GOS-E assessment (*Jennett, B. and Bond, M., Assessment of Outcome After Severe Brain Damage, Lancet i:480, 1975)*49, to be: a) Vegetative (VS) after 3 months or b) Severe Disability Upper (SD+) or Severe Disability Lower (SD -) after 6 months, or Moderate Disability Lower (MD-) after one year due to documented brain impairment, provided that the determination has been preceded by a period of in-patient neurological rehabilitation in a recognized rehabilitation center (List of facilities to be published in a Superintendent Guideline).
Superintendent's Recommendation	
I accept the Expert Panel's recommendation to eliminate the Glasgow Coma Scale (GCS) as a measurement tool for determining catastrophic impairment in adults with traumatic brain injuries and to use the Extended Glasgow Outcome Scale (GOS-E) as an alternative. Further, I recommend that the definition be modified such that a claimant evaluated at Vegetative (VS) after one month qualify for catastrophic determination designation.	

3.4.1 Glasgow Coma Scale

The Panel recommended that the Glasgow Coma Scale (GCS), included in the current definition of catastrophic impairment in the SABS, be eliminated because it has proven a poor tool for predicting the long-term outcomes of traumatic brain injury. In addition, the GCS has weaknesses because it relies on a claimant's ability to communicate. Hence, inaccurate scores may result with patients who have alcohol in their blood, have breathing tubes inserted or are too young to understand verbal cues. The Panel recommends the Extended Glasgow Outcome Scale (GOS-E) as the most appropriate alternative to the GCS. According to the Panel, using an outcome-based measure like GOS-E would reduce the chance of inaccurate determinations.

Some stakeholders have commented that the GCS should continue to be used as part of the definition as it is easy to apply and health professionals and lawyers are very familiar with it. I do not believe these arguments justify continuing to use a flawed tool. The purpose of this project is to move to more effective, accurate and predictable measurement tools and to make the definition of catastrophic impairment reflect evidence-based medicine. The level of comfort with the existing assessment system is immaterial.

3.4.2 Extended Glasgow Outcome Scale

The Panel recommends basing the catastrophic impairment determination on specific thresholds in the GOS-E, with timelines correlating to the various levels of impairment. Specifically, injuries resulting in a Vegetative State would qualify one month after the accident; injuries classed as Upper or Lower Severe disabilities would qualify at six months, and injuries classed as Lower Moderate disabilities would qualify at one year.

I accept the thresholds and timelines recommended by the Panel. Upon review of stakeholder comments supporting the predictability of the GOS-E, I find that the requirement for neurological rehabilitation is not necessary.

3.5 Other Physical Impairments

Current SABS	Panel Recommendation
4. 2. (e) subject to subsections (4), (5) and (6), an impairment or combination of impairments that, in accordance with the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 4th edition, 1993, results in 55 per cent or more impairment of the whole person;	4. 2 (e): A physical impairment or combination of physical impairments that, in accordance with the *American Medical Association's Guides to the Evaluation of Permanent Impairment, 4th edition 1993*, (GEPI-4), results in a physical impairment rating of 55 per cent whole person impairment (WPI). i. Unless covered by specific rating guidelines within relevant Sections of Chapters 3-13 of GEPI-4, all impairments relatable to non-psychiatric symptoms and syndromes (e.g. functional somatic syndromes, chronic pain syndromes, chronic fatigue syndromes, fibromyalgia Syndrome, etc.) that arise from the accident are to be understood to have been incorporated into the weighting of the GEPI-4 physical impairment ratings set out in Chapters 3 – 13. ii. With the exception of traumatic brain injury impairments, mental and/or behavioural impairments are excluded from the rating of physical impairments. iii. Definition 2(e), including subsections I and II, cannot be used for a determination of catastrophic impairment until two years after the accident, unless at least three months after the accident, there is a traumatic physical impairment rating of at least 55% WPI and there is no reasonable expectation of improvement to less than 55% WPI.
Superintendent's Recommendation	
I accept the Expert Panel's recommendation that the definition of catastrophic impairment include a physical impairment or combination of physical impairments that, in accordance with the American Medical Association's Guides to the Evaluation of Permanent Impairment, 4th edition, 1993, results in 55 per cent or more impairment of the whole person under the AMA Guides.	

The Panel recommends that the AMA Guides (4th edition) be used to determine catastrophic impairments that do not involve spinal cord injuries, amputations, severe walking difficulties, blindness or adult traumatic brain injuries.

The AMA Guides were first published in 1970 and have been revised periodically to reflect emerging scientific knowledge and judgment. The most recent edition of the AMA Guides, the 6th edition, was published in December 2007. The SABS continues to reference the 4th edition.

A number of stakeholders suggested that the 6th edition of the AMA Guides should be referenced in the SABS. However, according to the Expert Panel, though more up to date, the 6th edition is still not well accepted and its reliability has been questioned. The Panel recommended the continued use of the 4th Edition as part of the catastrophic impairment definition and I accept this analysis. The issue of which edition of the AMA Guide is most appropriate for determining catastrophic impairment should be revisited in a future review. Issues regarding the reliability of newer editions may be resolved at that time.

3.5.1 Pain

Superintendent's Recommendation
I accept the Expert Panel's recommendation that the catastrophic impairment definition should not allow pain to be quantified as a separate impairment.

If the Panel recommendations are implemented as stated in its Report, psychological and behavioural impairments would no longer be included in the definition of catastrophic impairment. These conditions include chronic pain and fibromyalgia. However, a claimant with one of these conditions may be able to meet the criteria for catastrophic impairment on psychiatric grounds.

In terms of pain conditions such as chronic pain syndrome and fibromyalgia, the Panel reports that they cannot be quantified as impairments on their own. The Panel indicates there is no way to measure pain and no method of confirming that a claimant does or does not meet a pain threshold. Moreover, in the AMA Guides an allowance for pain is included in the rating allocated to each impairment. Therefore, should pain be rated separately and added to the other impairment ratings, it would amount to double counting for pain.

3.6 Psychiatric Impairment

Current SABS	Panel Recommendation
4. 2. (f) subject to subsections (4), (5) and (6), an impairment that, in accordance with the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 4th edition, 1993, results in a class 4 impairment (marked impairment) or class 5 impairment (extreme impairment) due to mental or behavioural disorder. O. Reg. 34/10,	4. 2 (f) psychiatric impairment that meets the following criteria: i. The post-traumatic psychiatric impairment(s) must arise as a direct result of one or more of the following disorders, when diagnosed in accordance with DSM IV TR criteria: (a) Major Depressive Disorder, (b) Post Traumatic Stress Disorder, (c) a Psychotic Disorder, or (d) such other disorder(s) as may be published within a Government Guideline. ii. Impairments due to pain are excluded other than with respect to the extent to which they prolong or contribute to the duration or severity of the psychiatric disorders which may be considered under Criterion (i). iii. Any impairment or impairments arising from traumatic brain injury must be evaluated using Section 2(d) or 2(e) rather than this Section. iv. Severe impairment(s) are consistent with a Global Assessment of Function (GAF) score of 40 or less, after exclusion of all physical and environmental limitations. v. For the purposes of determining whether the impairment is sufficiently severe as to be consistent to Criterion (iv) - a GAF score of 40 or less - at minimum there must be demonstrable and persuasive evidence that the impairment(s) very seriously compromise independence and psychosocial functioning, such that the Insured Person clearly requires substantial mental health care and support services. In determining the demonstrability and persuasiveness of the evidence, the following generally recognized indicia are relevant: a) Institutionalization;

s. 3 (2)	b) Repeated hospitalizations, where the goal and duration are directly related to the provision of treatment of severe psychiatric impairment; c) Appropriate interventions and/or psychopharmacological medications such as: ECT, mood stabilizer medication, neuroleptic medications and/or such other medications that are primarily indicated for the treatment of severe psychiatric disorders; d) Determination of loss of competence to manage finances and property, or Treatment Decisions, or for the care of dependents; e) Monitoring through scheduled in-person psychiatric follow-up reviews at a frequency equivalent to at least once per month. f) Regular and frequent supervision and direction by community-based mental health services, using community funded mental health professionals to ensure proper hygiene, nutrition, compliance with prescribed medication and/or other forms of psychiatric therapeutic interventions, and safety for self or others.
Superintendent's Recommendation	
I accept the Expert Panel's recommendations to use a combination of factors in determining psychiatric catastrophic impairment and not to allow psychiatric and physical impairments to be combined.	

The Panel finds that there is no scientific evidence that mental or behavioural impairment ratings based on the AMA Guides are valid or reliable. The Guides do not specifically address psychological impairment and rely heavily on the functional limitations experienced by the claimant. I accept the Expert Panel's recommendations to limit this section of the definition to psychiatric impairments.

The Panel could not find a single assessment tool to measure overall psychiatric impairment. Instead, the Panel recommends a combination of requirements to meet the test for psychiatric catastrophic impairment.

I accept the Panel's recommendation to incorporate the Global Assessment of Functioning (GAF) scale, with a score of 40 or less, as one of the necessary criteria. The Panel selected the GAF because of its reliability and validity. The threshold was set at 40 because it likely captures individuals with severe psychiatric impairment, as claimants who meet this threshold have a tenuous capacity for living safely within the community without substantial mental health support services.

In addition, I accept the Expert Panel's recommendation for a Superintendent's Guideline, to be referenced in the new definition, which would list specific psychiatric disorders as criteria under this section of the definition, in addition to the GAF score of 40 or less.

3.6.1 Combining Psychiatric and Physical Impairments

The Panel found no evidence in scientific studies to support the idea that combining physical and mental/behavioural conditions can be achieved in a valid and reliable way with currently available tools.

While the AMA Guides assign whole person impairment ratings for physical impairments, they do not do the same for psychological impairments. The impairment rating systems for physical and mental/behavioural impairment are not compatible and cannot be combined. In addition, there is no scientific evidence to suggest that combining impairments is a simple additive process.

The Panel had trouble understanding how combinations of physical and psychiatric conditions that independently do not meet the criteria for catastrophic impairment could be equated to a severe injury to the brain or spinal cord or to blindness. I agree with the Expert Panel's position that arriving at a designation of catastrophic impairment is not a simple additive process. I therefore accept the Expert Panel's recommendation that the combining of physical and psychiatric impairments not be permitted.

3.7 Children

<table>
<tr><th>Current SABS</th><th>Panel Recommendation</th></tr>
<tr><td>3. (3) Subsection (4) applies if an insured person is under the age of 16 years at the time of the accident and none of the Glasgow Coma Scale, the Glasgow Outcome Scale or the American Medical Association's Guides to the Evaluation of Permanent Impairment, 4th edition, 1993, referred to in clause (2) (d), (e) or (f) can be applied by reason of the age of the insured person. O. Reg. 34/10, s. 3 (3).</td><td>3 Paediatric Traumatic Brain Injury (prior to age 18)

i. A child who sustains a traumatic brain injury is automatically deemed to have sustained a catastrophic impairment provided that either one of the following criteria (a or b) is met on the basis of traumatic brain injury sustained in the accident in question:
a) In-patient admission to a Level I trauma centre with positive findings on CT/MRI scan indicating intracranial pathology that is the result of the accident, including but not limited to intracranial contusions or haemorrhages, diffuse axonal injury, cerebral edema, midline shift, or pneumocephaly; or
b) In-patient admission to a publically funded rehabilitation facility (i.e. an Ontario Association of Children Rehabilitation Facility or equivalent) for a program of brain injury rehabilitation or Ontario Association of Children Rehab Facilities);

Paediatric catastrophic impairment on the basis of traumatic brain injury is any one of the following criteria:

ii. At any time after the first 3 months, the child's level of neurological function does not exceed the KOSCHI Category of Vegetative (Crouchman M et al., A practical outcome scale for paediatric head injury. Archives of Disease in Childhood. 2001; 84:1204)18: The child is breathing spontaneously and may have sleep/wake cycles. He may have non-purposeful or reflex movements of limbs or eyes. There is no evidence of ability to communicate verbally or non-verbally or to respond to commands.
iii. At any time after the first 6 months, the child's level of function does not exceed the KOSCHI Category of Severe (Crouchman M et al., A practical outcome scale for paediatric head injury. Archives of Disease in Childhood. 2001; 84:1204)18: (1) The child is at least intermittently able to move part of the body/eyes to command or make purposeful spontaneous movements; for example, a confused child pulling at nasogastric tube, lashing out at caregivers, or rolling over in bed. (2) May be fully conscious and able to communicate but not yet able to carry out any self care activities such as feeding. (3) Severe Impairment implies a continuing high level of dependency, but the child can assist in daily activities; for example, can feed self or walk with assistance or help to place items of clothing. (4) Such a child is fully conscious but may still have a degree of post-traumatic amnesia.
iv. At any time after the first 9 months, the child's level of function remains seriously altered such that the child is for the most part not age appropriately independent and requires supervision/actual help for physical, cognitive and/or behavioural impairments for the majority of his/her waking day.</td></tr>
<tr><td>3. (4) For the purposes of clauses (2) (d), (e) and (f), an impairment sustained in an accident by an insured person described in subsection (3) that can reasonably be believed to be a catastrophic impairment shall be deemed to be the impairment that is most analogous to the impairment referred to in clause (2) (d), (e) or (f), after taking into consideration the developmental implications of the impairment. O. Reg. 34/10, s. 3 (4).</td><td></td></tr>
<tr><td colspan="2">Superintendent's Recommendation</td></tr>
<tr><td colspan="2">I accept the Expert Panel's recommendations for designation of catastrophic impairment of children. However, I recommend that the definition be modified such that a child resulting in a KOSCHI category of Vegetative at one month, rather than three months, be designated catastrophically impaired.

Further, I recommend that the Holland Bloorview Kids Rehabilitation Hospital be requested to conduct a study on the reliability of the KOSCHI scale for assessing paediatric head injuries. The results of that study should be used to possibly revisit the designation of catastrophic impairment of children.</td></tr>
</table>

3.7.1 Age

In light of the long-term developmental implications of traumatic brain injuries, the Panel recommends changing the age for paediatric claimants from under 16 to under 18 years.

3.7.2 Automatic Determinations

The ultimate outcome of brain injuries in children may not become apparent for many years after an accident. The Panel observes that a long period of waiting for a final determination of catastrophic impairment could impose unnecessary stress on parents and families. On the other hand, it notes that an inaccurate determination of catastrophic impairment is not in the best interests of the child or a reasonable burden for the insurer. On balance the Panel concludes that the potential problems arising from an early designation are far outweighed by the benefits to catastrophically impaired children and their families.

The Panel notes that certain objective markers of serious brain injury due to trauma are correlated to poor outcome. These markers also signal a need for extended rehabilitation resources in order to reduce the eventual impairment. In particular, the Panel finds that positive findings on a brain scan, coupled with admission to a major trauma centre, are good clinical predictors of a prolonged recovery and poor outcome. Similarly, given the careful screening of patients by paediatric rehabilitation centres, the Panel believes that admission to one of these facilities is a sensitive indicator of high risk of poor outcome. I agree with the Expert Panel's logic on this issue, and recommend that children meeting these criteria be automatically designated as catastrophically impaired in order to ensure early access to necessary rehabilitation.

3.7.3 Early Determinations

For those children who do not fall within the automatic designation criteria, an early determination based upon clinical status is still important. The natural course of traumatic brain injury suggests that most improvement occurs early. A child who is still Vegetative one month after the accident, or whose injury is still categorized as Severe at six months, based on the King's Outcome Scale for Childhood Head Injury (KOSCHI), is very unlikely to ever regain independence. Similarly, it is the opinion of the Panel that children showing serious impairments including a significant delay in maturation after nine months of recovery have a poor outlook. The Panel selected these time frames as cut-off points for the determination of catastrophic impairment in these kinds of cases.

I accept the Expert Panel's recommendations regarding early determination for children with these levels of impairments due to traumatic brain injury.

3.7.4 Other Injuries in Children

For children with spinal cord injuries, amputations, severe walking difficulties, blindness and psychiatric conditions, the Panel recommends using the adult provisions to determine catastrophic impairment. No measurement tools have been developed for children suffering from these impairments. In these cases the Panel recommends seeking the closest analogy and applying the most appropriate method for the child. The Panel does not recommend the AMA Guides or the GAF scale as they were not designed for use with children. I accept the Expert Panel's recommendation regarding the determination of catastrophic impairment of children in such cases.

3.7.5 Childhood Head Injuries

Given the Panel's proposal to introduce the King's Outcome Scale for Childhood Head Injury (KOSCHI) into the definition of catastrophic impairment, I recommend that the Holland Bloorview Kids Rehabilitation Hospital be requested to conduct a study on KOSCHI's reliability for assessing paediatric head injuries. Given its specialization, I believe Bloorview is the most appropriate organization to conduct this study. However, I see no reason to delay implementation of this change to the definition until the study has been completed. The results of that study may necessitate revisiting the designation of catastrophic impairment of children.

3.8 Interim Benefits

Superintendent's Recommendation
I accept the Expert Panel's recommendation for the creation of interim benefits. When qualified, a claimant would have access to an additional $50,000 in coverage for medical, rehabilitation, attendant care and assessment expenses. These benefits would be managed by the claimant's treating physician.

The Panel views interim benefits as a mechanism for ensuring that certain claimants have access to rehabilitation that would maximize their chances of achieving the fullest possible recovery. The Panel recommends different tests applied at different qualifying times, depending on the particular impairment. Once used up, interim benefits would not be renewable.

The current standard coverage under the automobile insurance system includes $50,000 for medical and rehabilitation expenses and $36,000 for attendant care expenses (with a maximum of $3,000 per month). Medical and rehabilitation benefits are payable for up to 10 years following the accident. Attendant care benefits are available for up to two years following the accident. Once a claimant receives a catastrophic impairment designation, the coverage for medical and rehabilitation expenses increases to $1 million, and for attendant care expenses rises to $6,000 per month with a lifetime limit of $1 million.

The Panel recommends the introduction of interim benefits for specific groups of seriously injured claimants until a final catastrophic impairment determination can be made. The Panel believes that fairness would be improved for these claimants if they receive benefits without undue delay. This approach is consistent with the natural history of these conditions. While the Panel did not make a recommendation concerning the amount of interim benefits, I believe additional benefits of $50,000 above and beyond the standard coverage are warranted.

The Panel pointed out that most claimants eligible for interim benefits would ultimately receive a catastrophic impairment designation. In most cases, the interim benefits would therefore turn out to be an advance on the catastrophic impairment benefits. In a very few cases, the claimant would recover and would no longer qualify for catastrophic impairment designation.

3.8.1 Eligibility for Interim Benefits

Panel Recommendation
3. 2. (d) Traumatic Brain Injury in Adults (18 years of age or older): i. An Insured is granted an interim catastrophic impairment status when accepted for admission to a program of in-patient neurological rehabilitation at a recognized neurological rehabilitation center (List of facilities to be published in a Superintendent Guideline).
3.2. (e) Other Physical Impairments iv. Interim catastrophic impairment status is deemed to apply to any patient whose traumatic physical impairment rating is at least 55% WPI, when that determination is made at least three months after the accident date. v. Interim catastrophic impairment status ceases to exist as soon as a final determination has been made, in accordance with Criterion III guidelines, and in any event no later than two years after onset.
Superintendent's Recommendation
I accept the Expert Panel's recommendations on eligibility criteria for interim benefits for adults with traumatic brain injury and claimants with a 55% whole person impairment rating, with the following modifications: • Eligibility criteria for interim benefits for adults with traumatic brain injury should include admission to an out-patient or day patient rehabilitation program as an alternative to acceptance for admission to an in-patient rehabilitation program. • The application for interim benefits should be integrated into the application for catastrophic impairment determination and must be signed by a physician, unless the claimant has a brain impairment in which case the application can be signed by a neuropsychologist. • Treatment and Assessment Plans (OCF-18) to access interim benefits, as well as to make claims for goods and services for claimants determined to have a catastrophic impairments, to be signed by the claimant's primary treating physician.

The Panel recommends that interim benefits be introduced for adults with traumatic brain injuries and for those with major physical impairments who unequivocally require intensive and prolonged rehabilitation. I support this recommendation.

The Panel observed that adults with traumatic brain injuries and claimants with major physical injuries receive a mix of public and private rehabilitation. Much of the costly and intensive rehabilitation needed by individuals with traumatic brain injuries is covered privately. As well, the private system largely covers home and vehicle modifications to accommodate individuals with serious impairments. Attendant care coverage for claimants with traumatic brain and major physical injuries is paid for mainly by insurers and can run out before a final determination of catastrophic impairment is made.

After review of the Expert Panel's report as well as stakeholders' requests for further clarification about procedural issues, I am making the following recommendations concerning eligibility for interim benefits.

As the Panel observes, the natural history of traumatic brain injury suggests that many patients with initially moderate or severe levels of disability will improve during the year following injury. However, these patients will require substantial rehabilitation during this period to optimize their recovery. Interim benefits would enable these patients to access the necessary level of medical and rehabilitation care.

With respect to brain injuries, I recommend that one of the Panel's proposed eligibility criteria for interim benefits, namely acceptance for admission to an in-patient neurological rehabilitation program, should be amended. The trend in Ontario is shifting towards out-patient and day-patient treatment programs and this should be reflected in the eligibility criteria. Several stakeholder submissions demonstrated to me that there is some confusion as to the definition of the admission requirement. It should be noted that the Panel's proposed requirement is for acceptance for admission and not just admission. The subtle difference is that acceptance for admission includes individuals on an admission wait list. Therefore, I recommend that eligibility include those accepted for admission and those admitted to out-patient, day-patient and in-patient programs.

In addition, the Panel recommends that interim benefits be made available to individuals who meet the 55% or more impairment of the whole person standard, three months or more after the accident. This recommendation is based on the fact that claimants whose physical impairments are initially catastrophic may improve for months or even years, with rehabilitation. A determination of final outcome should therefore not be made before two years unless the outlook is clear-cut. The interim benefits will provide the necessary resources to those who need prolonged and substantial rehabilitation services and assistance with reintegration into the community. Access to these services should make it more probable that a catastrophically impaired claimant will achieve the fullest possible recovery.

I agree with the Panel that a key goal of the insurance system is to promote maximum recovery for patients at high risk of permanent catastrophic impairment. An additional $50,000 in interim benefits would do this by providing extended access to medical, rehabilitation and attendant care services until a final catastrophic impairment determination can appropriately be made.

3.8.2 Application for Interim Benefits

An application process would be needed for interim benefits. Currently the application for catastrophic impairment determination is the Application for Determination of Catastrophic Impairment (OCF-19). It would make sense to incorporate the application for interim benefit eligibility into the new OCF-19.

The SABS restricts the designation of catastrophic impairment status to physicians for all impairments and to neuropsychologists for brain impairments. The determination of who should receive interim benefits is similar to evaluating catastrophic impairment status. Therefore, it appears reasonable to utilize the same health professionals for the determination at both stages.

3.8.3 Management of Interim Benefits

The Panel believes that the interim benefits intended for the seriously impaired claimant's rehabilitation should be managed by his/her primary treating physician. I agree. Physicians are uniquely suited for this role since their scope of practice is very broad. The treating physician is already responsible for the claimant's health care and prescribes treatment or makes referrals. Given the serious nature of the injuries, the likelihood of multiple injuries and the various forms of rehabilitation needed, it is appropriate for the treating physician to sign off on Treatment and Assessment Plans (OCF-18) requesting access to interim benefits. A single health professional would be better able to coordinate rehabilitation as well as eliminate potential conflict of interest situations.

Since the treatment of automobile insurance claimants with catastrophic impairments is already overseen by a physician, the proposed changes would not significantly increase the number of doctor visits. Moreover, claimants would benefit as their treating physician would be better informed on the health services they are receiving as well their progress.

Once a particular series of medical and/or rehabilitation services is prescribed, the process would be similar that followed when any course of treatment is prescribed in an Assessment and Treatment Plan (OCF-18).

The above reasoning also applies after a claimant has received a final catastrophic impairment designation. I believe the primary treating physician should continue to prescribe medical care and rehabilitation and sign off on claims for goods and services in Treatment and Assessment Plans (OCF 18). The intent should be to move towards a single professional overseeing all care.

4. Future Reviews

In its review and discussions, the Panel identified several issues that have not been sufficiently covered in the scientific or medical literature. Though the Panel did make recommendations regarding some of these issues, it also called for further studies to test the soundness of its recommendations.

The following issues were proposed for further study:

- Combining psychiatric and physical impairments;
- Method to rate physical and psychiatric impairments in the paediatric population;
- Classification of traumatic brain injury in the paediatric population (a study of the KOSCHI tool);
- Premorbidity and age – how to address the needs of claimants who sustain non-catastrophic injuries in an accident but experience unusually adverse outcomes because of prior impairment due to chronic illness or age.

While I recognize the need for additional research, it has not been within FSCO's mandate to initiate or fund scientific studies. FSCO strongly encourages the scientific community to conduct research relevant to the definition of catastrophic impairment and would be very interested in the results of this work. When new studies have been completed on the above topics, it may be advisable to create another Panel to revisit these issues. As the science regarding the measurement of catastrophic impairment evolves, it is recommended that the definition should change as well. In the same way that the science should be reviewed periodically, the auto insurance system needs to be reviewed periodically.

5. Assessor Qualifications and Experience Requirements

The Expert Panel's Phase II Report makes recommendations for the required training, qualifications and experience of assessors who conduct catastrophic impairment assessments under the SABS.

The Panel has done extensive analysis of catastrophic impairment assessments, has identified problems with the current assessment system, and has made recommendations to increase consistency and quality.

The Panel's recommendations do not require regulatory changes. Implementing these proposals could be accomplished through the release of a Superintendent's Guideline, as contemplated and provided for in section 45 (2) of the SABS.

5.1 Lead Evaluator and Evaluators

Superintendent's Recommendation
Assessments of catastrophic impairments other than those described in clause (2)(e) of the definition should be conducted by a single Evaluator who meets the training and qualification requirements detailed this Report. For catastrophic impairments under clause (2)(e), a team of Evaluators may be used, if necessary.

The Panel draws a distinction between a Lead Evaluator and an Evaluator and recommends different qualifications for each. I believe this distinction is unnecessary because all Evaluators should have the same qualifications to assess catastrophic impairment. Therefore, all those performing assessments should be referred to as Evaluators.

The Panel recommends that a Lead Evaluator should be responsible for overseeing the assessment process. However, if the recommendations I am making on the basis of the Panel's Phase I Report are adopted, some catastrophic injuries to children would qualify for automatic designation. An automatic designation would not require a team of professionals to determine if the claimant is catastrophically impaired. In such cases, I recommend that there be only one Evaluator. In fact, with the new measurement tools – which are more accurate and consistently predictive – most of the impairments described in the catastrophic impairment definition would require only one Evaluator; a team of Evaluators would not be necessary.

In cases where the claimant has sustained a combination of injuries that meet the 55% impairment threshold [under clause (2) (e) of the definition], a team of Evaluators may be needed to assess those multiple impairments. In this situation, one Evaluator would lead and coordinate the assessment process.

5.2 Medical Doctor or Doctorate Level Neuropsychologist

Superintendent's Recommendation
An Evaluator conducting assessments of catastrophic impairments must be a medical doctor or a doctorate level neuropsychologist (in the case of traumatic brain injuries), with a minimum of five years of licensing or registration in Canada.

The Panel recommends that all Lead Evaluators should be medical doctors or doctorate level neuropsychologists (in the case of traumatic brain injuries) with a minimum of five years of licensing or registration in Canada. I agree with this recommendation, except that it should apply to all Evaluators.

5.3 Measurement Tools Training

Superintendent's Recommendation
Evaluators conducting assessments of catastrophic impairments must have formal training in the use of the measurement tools that are directly relevant to their scope of practice.

The Panel recommends that all Evaluators involved in the assessment of catastrophic impairment have formal training in the use of the measurement tools that are directly relevant to their scope of practice. The measurement tools are: ASIA Scale; GOS-E; Spinal Cord Independence Measure; GAF; and the AMA Guides.

The Panel believes that proper training would improve the quality of assessments and standardize the way assessments are conducted. As a result, the system would be less prone to assessor bias and inconsistent use of measurement tools.

I accept the Expert Panel's recommendation.

5.4 University-based Training

Superintendent's Recommendation
I do not accept the Panel's recommendation that university-based training be required for all Evaluators. However, I do agree training is recommended, especially to Evaluators frequently conducting catastrophic assessments.

The Panel recommends that all Lead Evaluators guiding the determination of catastrophic impairment be required to have formal training in a university-based program specializing in impairment evaluation and medico-legal expertise. This would be in addition to their clinical training as medical doctors or neuropsychologists. Since I am recommending the same mandatory qualifications for all Evaluators, this requirement if adopted would apply to all.

I believe the Panel has failed to consider that many professionals who currently perform catastrophic impairment assessments as a large part of their practice would no longer qualify to do so. The proposed new educational requirement and time commitment might deter some of them from continuing to perform these assessments. This would be even more likely where these assessments do not make up a large part of a practice. As well, the existing $2,000 cap on assessment fees would make it less attractive to invest in additional formal training. All in all, the recommended training requirement could lead to a shortage of assessors.

While I believe the university-based training advocated by the Panel would be an asset, I am not recommending this as a requirement to qualify as an Evaluator. I do however recommend that Evaluators who frequently conduct catastrophic impairment assessments should obtain this further education and thereby strengthen their knowledge and skills.

5.5 Standardized Data Collection Forms

The Panel recommends that I convene a new panel of experts to develop a concise and comprehensive set of evaluation forms for the assessment of catastrophic impairment, to correspond with the new measurement tools recommended in its Phase I Report.

While the goal of assisting Evaluators is laudable, I believe the creation of a new set of forms would run contrary to the Government's commitment after the Five Year Review to decrease the number of forms and paperwork required in the automobile insurance system. Should the current forms be found unsatisfactory, I will consider revisiting this issue in the future.

5.6 Transition Process

Superintendent's Recommendation

The following transition phases should be established through a Guideline:

- Phase I – Every evaluator must be a medical doctor or doctorate-level neuropsychologist with a minimum of five years of licensing/registration in Canada.
- Phase II – One year after the new definition takes effect, all Evaluators must have completed training in the use of measurement tools described in the SABS definition of catastrophic impairment that are relevant to their scope of practice.

The Panel recommends a transitional period for implementation so that clinicians have enough time to attain the required competencies and qualifications. The Panel also suggests that a Superintendent's Guideline be issued to direct the transition. I accept this Panel recommendation.

Since I am not recommending the university-based training program in impairment evaluation and medico-legal expertise as a mandatory requirement, it need not be included in the transition process.

6. Conclusion

A review of the catastrophic impairment definition was triggered in 2009 with the Government's direction to the Superintendent to consult with the medical community on changes to the definition. The Panel of medical experts that was convened presented its observations and made recommendations to me in two reports in April and June 2011. I have reviewed these reports and the submissions made by stakeholders in response. I have accepted the majority of the Panel's recommendations and amended some of the recommendations as described in this report.

The regulatory standard for providing health care in the Ontario automobile insurance system is that the goods and services must be reasonable and necessary. Arbitrators and the courts have provided a broad interpretation of the range of goods and services that are considered reasonable and necessary. In the Ontario automobile insurance system, there is no express requirement for providers to provide evidence-based treatment that is consistent with positive outcomes. This approach is inconsistent with the rest of the Ontario health care system. The recommendations in this Report are intended to improve the fairness, accuracy and predictability of the process for determining catastrophic impairments by introducing elements of evidence-based medicine into the Ontario automobile insurance system.

The Panel recommended not only changes to the definition of catastrophic impairment, but also changes to the existing structure around catastrophic impairment claims (e.g., the introduction of a new "interim" catastrophic impairment status). Implementing these recommendations would require regulation changes not only to the catastrophic impairment definition but also to numerous other provisions governing the process for determination and handling of catastrophic impairment claims.

It must be stated that when writing its report and making its evidence-based recommendations, the Panel attempted to draft what the Regulation might look like. Though the Panel was aware that it had not been assigned a drafting assignment, it believed that its approach would provide some guidance. The Panel was aware that the final drafting language might vary considerably.

With this report, the government now has the Panel's recommendations, stakeholders' comments, and my recommendations. It is my hope that the report fulfills the direction given in the 2009 auto insurance reform package and provides a useful backdrop for the policy decisions the government must now consider.

7. Appendices

Appendix A

Recommendations from the Five Year Review Report

The Superintendent's Report on the Five Year Review of Automobile Insurance made the following recommendations in connection to the catastrophic impairment definition Project:

Recommendation #10: Further consultation with experts in the field is needed to amend the definition of "catastrophic impairment". The goal for this review should be to ensure that the most seriously injured accident victims are treated fairly.

There have been significant developments since the introduction of the "catastrophic impairment" definition in 1996. Court decisions have expanded the definition in order to address perceived inequities but in so doing, have created uncertainty. Most stakeholders continue to support the concept of providing two tiers of benefits based on injury severity. However, the integrity of the model is dependent on a clear and fair definition of "catastrophic impairment."

The Panel of medical academics and clinicians assembled to conduct this review presented FSCO's Superintendent with a report detailing observations and recommendations on improving the system to ensure that the most seriously impaired claimants are treated appropriately.

Recommendation #17: Restrict the ability to conduct catastrophic impairment assessments to practitioners with appropriate training and experience.

Assessments done to determine catastrophic impairment seem to be more problematic in terms of costs and quality. Stakeholders have suggested that unqualified assessors are being utilized leading to inaccurate ratings, disputes and additional assessments, all adding costs to the system.

In the second phase of the project, the Panel discussed the requirements of qualifications for assessors of catastrophically impaired claimants. The Panel presented its second report making recommendations on how to improve the assessment process connected to the determination of catastrophic impairment designation.

Appendix B

Catastrophic Impairment Definition Review Process

The Government's 2010 automobile insurance reforms included a recommendation that the Superintendent appoint a panel of medical experts to review the definition of "catastrophic impairment".

Following a Request for Proposals (RFP) in accordance with the Province's procurement requirements, Dr. Pierre Côté was selected to chair the Catastrophic Impairment Expert Panel. Dr. Côté is an internationally recognized scientist in the Division of Health Care and Outcomes Research at the Toronto Western Research Institute. As Chair, he played an active role in selecting the members of the Panel, which was comprised of expert academics and clinicians.

The Panel was asked to identify ambiguities and gaps in the current SABS definition of catastrophic impairment in order to reflect emerging scientific knowledge and judgment. It was also requested to identify the required training, qualifications and experience of assessors who conduct catastrophic impairment assessments under the SABS, as a second phase of the project.

The Panel began its work in early December 2010. The Panel conducted its review and presented observations and recommendations to me in two reports (attached):

- Recommendations for Changes to the Definition of Catastrophic Impairment, September 2, 2011
- Recommendations for Training, Qualifications and Experience for Catastrophic Impairment Assessors, June 21, 2011.

The Expert Panel's first Report was posted on FSCO's website on April 15, 2011[4], and FSCO invited stakeholders to send in submissions with questions and comments. Stakeholders were advised to support their feedback with scientific evidence as the Expert Panel's work and recommendations were based on scientific knowledge.

To enhance transparency, FSCO asked stakeholders for consent to post their submissions on the website. All of the submissions were posted.

A total of 33 individuals and groups took the time to provide FSCO with their perspectives (see Appendix D). The opinions expressed in the submissions represent a broad range of experiences and perspectives.

Moreover, once the Report was made public, the Panel members – especially the Chair – made themselves available for outreach sessions to discuss their recommendations. For example, an information session took place on April 28, 2011 to address questions on the Report's content. Over 150 stakeholders attended. The session provided clarifications and answered many questions regarding many of the specifics of the recommendations in the Panel's Report.

[4] The Panel's report was rereleased on September 2, 2011 with an erratum

In late June 2011, the Expert Panel's second Report, on the training, qualifications and experience of catastrophic impairment assessors, was posted on FSCO's website.

I see stakeholder involvement in the consultations as a vital part of this process. I appreciate the effort made to provide informed input. Stakeholder experience is very important in identifying successes, as well as areas that need more attention. The recommendations I am making in this Report take into account both the Expert Panel's proposals as well as comments by stakeholders.

Project Process and Methodology

The project was conducted in two phases. In Phase I, the Panel reviewed the current SABS definition of catastrophic impairment and made recommendations for changes to the definition of catastrophic impairment. In Phase II, the Panel identified the required training, qualifications and experience of assessors who conduct catastrophic impairment assessments under the SABS.

In order to fulfill its mandate to develop recommendations based on emerging scientific knowledge and judgment, the Panel gave precedence to valid and reliable scientific evidence. In the absence of such evidence, the Panel informed its deliberations and developed its recommendations based on the best practices used in other Canadian and international jurisdictions. Finally, if neither scientific evidence nor best practices were available, the Panel relied on expert opinions to inform its work. The Chair reserved the right to seek opinions from individuals outside the Panel to inform the Panel's work. The above approach was considered the Panel's guiding principle.

Conflict of Interest Declarations

The work conducted by the Panel was carried out in a rigorous, transparent and unbiased manner. Therefore, at the first Panel meeting, the members (including the Chair) were asked to disclose any conflicts of interest they may have had with their involvement in the project. The definition of conflict of interest endorsed by the International Committee of Medical Journal Editors was used:

> Conflict of interest exists when an author (or the author's institution), reviewer, or editor has financial or personal relationships that inappropriately influence (bias) his or her actions (such relationships are also known as dual commitments, competing interests, or competing loyalties). These relationships vary from being negligible to having great potential for influencing judgment. Not all relationships represent true conflict of interest. On the other hand, the potential for conflict of interest can exist regardless of whether an individual believes that the relationship affects his or her scientific judgment. Financial relationships (such as employment, consultancies, stock ownership, honoraria, and paid expert testimony) are the most easily identifiable conflicts of interest and the most likely to undermine the credibility of the journal, the authors, and of science itself. However, conflicts can occur for other reasons, such as personal relationships, academic competition, and intellectual passion.

For the purpose of the Expert Panel, the terms “journal”, “author”, “reviewer” and “editor” in the above definition are replaced by “Chair or Expert Panel member”.

Baseline Survey

Prior to the first meeting, the members were asked to respond to an anonymous electronic questionnaire to determine the following:

- Level of agreement with the guiding principle (described above);
- Individual understanding of the meaning of catastrophic impairment;
- Level of agreement with the current definition of catastrophic impairment; and
- Recommendations for improvement of the SABS definition of “catastrophic impairment”.

Where applicable, the members were invited to support their answers and recommendations with the best available scientific evidence.

Literature Reviews

The Panel conducted non-systematic reviews of the recent scientific literature to identify ambiguities and gaps in the current SABS definition of “catastrophic impairment”. A systematic review of the literature was not possible given the Panel’s resources and timeline. A search of PubMed from 2000-2010 was conducted to identify research articles that specifically address the reliability, validity and predictive ability of measurement tools currently referenced in the definition.

Based on the Expert Panel’s recommendations, additional literature searches were performed to examine the reliability and validity of the American Spinal Injury Association classification of spinal cord injury (ASIA), the Global Assessment of Functioning (GAF) and the King’s Outcome Scale for Childhood Head Injury (KOSCHI). The relevant literature was presented to the Panel to guide its decisions concerning incorporation of these measures.

The articles collected were reviewed by the Chair and his staff. To be included in the review, articles must have included original data and must have been judged to be scientifically valid by the Chair. Opinion papers, editorials, letters to the editor, case reports, case-series, textbook chapters without original data, basic science papers and narrative reviews of the literature were not considered. Summaries of the evidence were presented to the Panel to inform their deliberations.

Finally, PubMed was searched for alternative methods that could be used to define and determine catastrophic impairment. The results of this search were also presented to the Panel.

As well, the Panel conducted a non-systematic search of laws and regulations used in other jurisdictions to define “catastrophic impairment”, “permanent impairment”, and “permanent disability”.

Potential gaps and ambiguities in the current SABS definition were also investigated by eliciting the opinions of the members.

Development of Recommendations

The Panel used a modified Delphi methodology to develop recommendations on changes to the definition and determination of catastrophic impairment. The baseline survey, the literature review and the best practices from other jurisdictions served as the foundation for the development of recommendations. The Panel also determined the feasibility of implementing proposed recommendations.

The agreement of the Panel members on proposed recommendations and their suggestions for improvement was sought through electronic surveys. The results of the surveys were analyzed by the Chair and used to determine whether or not consensus was reached. Consensus was deemed to have been reached when 75% of the Panel (6/8 members) agreed with a recommendation. The Panel meetings were used to discuss the results of the surveys and to refine the recommendations. When consensus was not reached, modified recommendations were submitted to the Panel in a second or third survey. "Round 2" or "Round 3" recommendations were based on the feedback received in the previous surveys and from the Panel's discussions.

Appendix C

Ontario Regulation 34/10 (Statutory Accident Benefits Schedule) Subsections dealing with "catastrophic impairment":

3. (2) For the purposes of this Regulation, a catastrophic impairment caused by an accident is,

(a) paraplegia or quadriplegia;

(b) the amputation of an arm or leg or another impairment causing the total and permanent loss of use of an arm or a leg;

(c) the total loss of vision in both eyes;

(d) subject to subsection (4), brain impairment that results in,

(i) a score of 9 or less on the Glasgow Coma Scale, as published in Jennett, B. and Teasdale, G., *Management of Head Injuries*, Contemporary Neurology Series, Volume 20, F.A. Davis Company, Philadelphia, 1981, according to a test administered within a reasonable period of time after the accident by a person trained for that purpose, or

(ii) a score of 2 (vegetative) or 3 (severe disability) on the Glasgow Outcome Scale, as published in Jennett, B. and Bond, M., *Assessment of Outcome After Severe Brain Damage*, Lancet i:480, 1975, according to a test administered more than six months after the accident by a person trained for that purpose;

(e) subject to subsections (4), (5) and (6), an impairment or combination of impairments that, in accordance with the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 4th edition, 1993, results in 55 per cent or more impairment of the whole person; or

(f) subject to subsections (4), (5) and (6), an impairment that, in accordance with the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 4th edition, 1993, results in a class 4 impairment (marked impairment) or class 5 impairment (extreme impairment) due to mental or behavioural disorder. O. Reg. 34/10, s. 3 (2).

(3) Subsection (4) applies if an insured person is under the age of 16 years at the time of the accident and none of the Glasgow Coma Scale, the Glasgow Outcome Scale or the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 4th edition, 1993, referred to in clause (2) (d), (e) or (f) can be applied by reason of the age of the insured person. O. Reg. 34/10, s. 3 (3).

(4) For the purposes of clauses (2) (d), (e) and (f), an impairment sustained in an accident by an insured person described in subsection (3) that can reasonably be believed to be a catastrophic impairment shall be deemed to be the impairment that is most analogous to the impairment referred to in clause (2) (d), (e) or (f), after taking into consideration the developmental implications of the impairment. O. Reg. 34/10, s. 3 (4).

(5) Clauses (2) (e) and (f) do not apply in respect of an insured person who sustains an impairment as a result of an accident unless,

(a) a physician or, in the case of an impairment that is only a brain impairment, either a physician or a neuropsychologist states in writing that the insured person's condition is unlikely to cease to be a catastrophic impairment; or

(b) two years have elapsed since the accident. O. Reg. 289/10, s. 1 (2).

(6) For the purpose of clauses (2) (e) and (f), an impairment that is sustained by an insured person but is not listed in the American Medical Association's *Guides to the Evaluation of Permanent Impairment*, 4th edition, 1993 is deemed to be the impairment that is listed in that document and that is most analogous to the impairment sustained by the insured person. O. Reg. 34/10, s. 3 (6).

Determination of catastrophic impairment

45. (1) An insured person who sustains an impairment as a result of an accident may apply to the insurer for a determination of whether the impairment is a catastrophic impairment. O. Reg. 34/10, s. 45 (1).

(2) The following rules apply with respect to an application under subsection (1):

1. An assessment or examination in connection with a determination of catastrophic impairment shall be conducted only by a physician but the physician may be assisted by such other regulated health professionals as he or she may reasonably require.
2. Despite paragraph 1, if the impairment is a brain impairment only, the assessment or examination may be conducted by a neuropsychologist who may be assisted by such other regulated health professionals as he or she may reasonably require.
3. If a Guideline specifies conditions, restrictions or limits with respect to the determination of whether an impairment is a catastrophic impairment, the determination must be made in accordance with those conditions, restrictions and limits. O. Reg. 34/10, s. 45 (2); O. Reg. 289/10, s. 5.

(3) Within 10 business days after receiving an application under subsection (1) prepared and signed by the person who conducted the assessment or examination under subsection (2), the insurer shall give the insured person,

(a) a notice stating that the insurer has determined that the impairment is a catastrophic impairment; or

(b) a notice stating that the insurer has determined that the impairment is not a catastrophic impairment and specifying the medical and any other reasons for the insurer's decision and, if the insurer requires an examination under section 44 relating to whether the impairment is a catastrophic impairment, so advising the insured person. O. Reg. 34/10, s. 45 (3).

(4) If an application is made under this section not more than 104 weeks after the accident and, immediately before the application was made, the insured person was receiving attendant care benefits,

(a) the insurer shall continue to pay attendant care benefits to the insured person during the period before the insurer makes a determination under this section; and

(b) the amount of the attendant care benefits for the period referred to in clause (a) shall be determined on the assumption that the insured person's impairment is a catastrophic impairment. O. Reg. 34/10, s. 45 (4).

(5) Within 10 business days after receiving the report of an examination under section 44, the insurer shall,

(a) give a copy of the report to the insured person and to the person who prepared the application under this section; and

(b) provide the insured person with a notice stating that the insurer has determined that the impairment is a catastrophic impairment or is not a catastrophic impairment and setting out the medical and any other reasons for the insurer's determination. O. Reg. 34/10, s. 45 (5).

(6) If an insured person is determined to have sustained a catastrophic impairment as a result of an accident, the insured person is entitled to payment of all expenses incurred before the date of the determination and to which the insured person would otherwise be entitled to payment under this Regulation by virtue of having sustained a catastrophic impairment. O. Reg. 34/10, s. 45 (6).

Appendix D

Catastrophic Impairment Definition as Recommended by the Expert Panel

For the purposes of this Regulation, a catastrophic impairment caused by an accident is,

Paraplegia/ Tetraplegia

2 (a) paraplegia or tetraplegia that meets the following criteria i and ii, and either iii or iv:

i. The Insured Person is currently participating in, or has completed a period of, in-patient spinal cord injury rehabilitation in a public rehabilitation hospital; and
ii. The neurological recovery is such that the permanent ASIA Grade can be determined with reasonable medical certainty according to the American Spinal Injury Association Standards (*Marino RJ et al. ASIA Neurological Standards Committee 2002. International standards for neurological classification of spinal cord injury. J Spinal Cord Med 2003; 26(Suppl 1): S50–S56*) and
iii. The permanent ASIA Grade is A, B, or C or,
iv. The permanent ASIA Grade is or will be D provided that the insured has a permanent inability to walk independently as defined by scores 0–5 on the Spinal Cord Independence Measure item 12 (indoor mobility, ability to walk <10 m) (*Catz A, Itzkovich M, Tesio L, et al. A multicenter international study on the spinal cord independence measure, version III: Rasch psychometric validation. Spinal Cord 2007; 45: 275–91*) and/or requires urological surgical diversion, an implanted device, or intermittent or constant catheterization in order to manage the residual neuro-urological impairment.

2 (b) - Severe impairment of ambulatory mobility

2 (b) Severe impairment of ambulatory mobility, as determined in accordance with the following criteria:

i. Trans-tibial or higher amputation of one limb, or
ii. Severe and permanent alteration of prior structure and function involving one or both lower limbs as a result of which:
    a) The Insured Person is currently participating in, or has completed a period of in-patient rehabilitation in a public rehabilitation facility, and
    b) It can be reasonably determined that the Insured Person has or will have a permanent inability to walk independently and instead requires at least bilateral ambulatory assistive devices [mobility impairment equivalent to that defined by scores 0–5 on the Spinal Cord Independence Measure item 12 (indoor mobility, ability to walk <10 m) (*Catz A, Itzkovich M, Tesio L, et al. A multicenter international study on the spinal cord independence measure, version III: Rasch psychometric validation. Spinal Cord 2007; 45: 275–91*).

2 (c) – Blindness

2 (c). Legal blindness in both eyes due to structural damage to the visual system. Non-organic visual loss (hysterical blindness) is excluded from this definition.

2 (d) – Traumatic Brain Injury in Adults

If Interim Status is Approved
2d: Traumatic Brain Injury in Adults (18 years of age or older):

ii. An Insured is granted an interim catastrophic impairment status when accepted for admission to a program of in-patient neurological rehabilitation at a recognized neurological rehabilitation center (List of facilities to be published in a Superintendent Guideline).
iii. Catastrophic impairment, based upon an evaluation that has been in accordance with published guidelines for a structured GOS-E assessment (*Jennett, B. and Bond, M., Assessment of Outcome After Severe Brain Damage, Lancet i:480, 1975)*49, to be:
    a) Vegetative (VS) after 3 months or
    b) Severe Disability Upper (SD+) or Severe Disability Lower (SD -) after 6 months, or Moderate Disability Lower (MD-) after one year due to documented brain impairment, provided that the determination has been preceded by a period of in-patient neurological rehabilitation in a recognized rehabilitation center (List of facilities to be published in a Superintendent Guideline).

If Interim Status is not Approved
2d: Traumatic Brain Injury in Adults (18 years of age or older):
The impairment is deemed to be catastrophic, when determined in accordance with published guidelines for a structured GOS-E assessment (*Jennett, B. and Bond, M., Assessment of Outcome After Severe Brain Damage, Lancet i:480, 1975)*49, is:

i. Vegetative (VS) after 3 months, or
ii. Severe Disability Upper (SD+) or Severe Disability Lower (SD-) after 6 months, or
iii. Moderate Disability Lower (MD-) after 1 year, provided that the determination has been preceded by a period of in-patient neurological rehabilitation in a recognized rehabilitation center (List of facilities to be published in a Superintendent Guideline)

2 (e) – Other Physical Impairments (not covered by 2(a), 2 (b), 2 (c) or 2 (d))

2 (e): A physical impairment or combination of physical impairments that, in accordance with the *American Medical Association's Guides to the Evaluation of Permanent Impairment, 4th edition 1993*, (GEPI-4), results in a physical impairment rating of 55 per cent whole person impairment (WPI).

vi. Unless covered by specific rating guidelines within relevant Sections of Chapters 3-13 of GEPI-4, all impairments relatable to non-psychiatric symptoms and syndromes (e.g. functional somatic syndromes, chronic pain syndromes, chronic fatigue syndromes, fibromyalgia Syndrome, etc.) that arise from the accident are to be understood to have been incorporated into the weighting of the GEPI-4 physical impairment ratings set out in Chapters 3 – 13.
vii. With the exception of traumatic brain injury impairments, mental and/or behavioural impairments are excluded from the rating of physical impairments.

viii. Definition 2(e), including subsections I and II, cannot be used for a determination of catastrophic impairment until two years after the accident, unless at least three months after the accident, there is a traumatic physical impairment rating of at least 55% WPI and there is no reasonable expectation of improvement to less than 55% WPI.

If Interim Status is Approved

ix. Interim catastrophic impairment status is deemed to apply to any patient whose traumatic physical impairment rating is at least 55% WPI, when that determination is made at least three months after the accident date.

x. Interim catastrophic impairment status ceases to exist as soon as a final determination has been made, in accordance with Criterion III guidelines, and in any event no later than two years after onset.

2 (f) – Psychiatric Impairment

2(f) psychiatric impairment that meets the following criteria:

vi. The post-traumatic psychiatric impairment(s) must arise as a direct result of one or more of the following disorders, when diagnosed in accordance with DSM IV TR criteria: (a) Major Depressive Disorder, (b) Post Traumatic Stress Disorder, (c) a Psychotic Disorder, or (d) such other disorder(s) as may be published within a Government Guideline.

vii. Impairments due to pain are excluded other than with respect to the extent to which they prolong or contribute to the duration or severity of the psychiatric disorders which may be considered under Criterion (i).

viii. Any impairment or impairments arising from traumatic brain injury must be evaluated using Section 2(d) or 2(e) rather than this Section.

ix. Severe impairment(s) are consistent with a Global Assessment of Function (GAF) score of 40 or less, after exclusion of all physical and environmental limitations.

x. For the purposes of determining whether the impairment is sufficiently severe as to be consistent to Criterion (iv) - a GAF score of 40 or less - at minimum there must be demonstrable and persuasive evidence that the impairment(s) very seriously compromise independence and psychosocial functioning, such that the Insured Person clearly requires substantial mental health care and support services. In determining the demonstrability and persuasiveness of the evidence, the following generally recognized indicia are relevant:

a) Institutionalization;
b) Repeated hospitalizations, where the goal and duration are directly related to the provision of treatment of severe psychiatric impairment;
c) Appropriate interventions and/or psychopharmacological medications such as: ECT, mood stabilizer medication, neuroleptic medications and/or such other medications that are primarily indicated for the treatment of severe psychiatric disorders;
d) Determination of loss of competence to manage finances and property, or Treatment Decisions, or for the care of dependents;
e) Monitoring through scheduled in-person psychiatric follow-up reviews at a frequency equivalent to at least once per month.

f) Regular and frequent supervision and direction by community-based mental health services, using community funded mental health professionals to ensure proper hygiene, nutrition, compliance with prescribed medication and/or other forms of psychiatric therapeutic interventions, and safety for self or others.

3 – Traumatic Brain Injury in Children

3 Paediatric Traumatic Brain Injury (prior to age 18)

i. A child who sustains a traumatic brain injury is automatically deemed to have sustained a catastrophic impairment automatically provided that either one of the following criteria (a or b) is met on the basis of traumatic brain injury sustained in the accident in question:
   a) In-patient admission to a Level I trauma centre with positive findings on CT/MRI scan indicating intracranial pathology that is the result of the accident, including but not limited to intracranial contusions or haemorrhages, diffuse axonal injury, cerebral edema, midline shift, or pneumocephaly; or
   b) In-patient admission to a publically funded rehabilitation facility (i.e. an Ontario Association of Children Rehabilitation Facility or equivalent) for a program of brain injury rehabilitation or Ontario Association of Children Rehab Facilities);

Paediatric catastrophic impairment on the basis of traumatic brain injury is any one of the following criteria:

ii. At any time after the first 3 months, the child's level of neurological function does not exceed the KOSCHI Category of Vegetative *(Crouchman M et al., A practical outcome scale for paediatric head injury. Archives of Disease in Childhood. 2001; 84:1204)*18*:* The child is breathing spontaneously and may have sleep/wake cycles. He may have non-purposeful or reflex movements of limbs or eyes. There is no evidence of ability to communicate verbally or non-verbally or to respond to commands.

iii. At any time after the first 6 months, the child's level of function does not exceed the KOSCHI Category of Severe *(Crouchman M et al., A practical outcome scale for paediatric head injury. Archives of Disease in Childhood. 2001; 84:1204)*18: (1) The child is at least intermittently able to move part of the body/eyes to command or make purposeful spontaneous movements; for example, a confused child pulling at nasogastric tube, lashing out at caregivers, or rolling over in bed. (2) May be fully conscious and able to communicate but not yet able to carry out any self care activities such as feeding. (3) Severe Impairment implies a continuing high level of dependency, but the child can assist in daily activities; for example, can feed self or walk with assistance or help to place items of clothing. (4) Such a child is fully conscious but may still have a degree of post-traumatic amnesia.

iv. At any time after the first 9 months, the child's level of function remains seriously altered such that the child is for the most part not age appropriately independent and requires supervision/actual help for physical, cognitive and/or behavioural impairments for the majority of his/her waking day.

Appendix E

Expert Panel Chair and Members

Chair of the Expert Panel:

Pierre Côté DC, PhD Scientist, Toronto Western Research Institute, Toronto Western Hospital Associate Professor, Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario

Expert Panel Members:

Arthur Ameis MD FRCPC DABPMR [Subsp Cert Pain Medicine] Physiatrist Teaching Faculty, Université de Montréal, Insurance Medicine and Medicolegal Evaluation Program Medical Director, Multi-Disciplinary Assessment Centre Toronto, Ontario

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Loretta Howard[5], B.Sc., M.Ed., Ed.D. Director, Curriculum & Faculty Development
Canadian Memorial Chiropractic College (CMCC), Toronto, Ontario
Lecturer, Department of Adult Education and Counseling Psychology, OISE/University of Toronto and Faculty of Education, Brock University

Ronald Kaplan, Ph.D., C. Psych. Clinical, Rehabilitation and Neuropsychologist Private Practice, Hamilton, Ontario

Michel Lacerte, MDCM, M.Sc., FRCPC, CCRC Physiatrist Associate Director, Université de Montréal, Insurance Medecine and Medicolegal Evaluation Program Associate Professor with the Department of Physical Medicine & Rehabilitation, University of Western Ontario (UWO), Schulich School of Medicine and Dentistry, London, Ontario

Patrick Loisel, M.D. Professor, Dalla Lana School of Public Health, University of Toronto Director, Work Disability Prevention CIHR Strategic Training Program Toronto, Ontario

Peter Rumney, M.D., FRCP(C) Senior Physician Director, Rehabilitation & Complex Continuing Care Holland Bloorview Kids Rehabilitation Hospital Assistant Professor in Paediatrics at University of Toronto, Toronto, Ontario

[5] joined Expert Panel for Phase II Report on Training, Qualifications and Experience for Catastrophic Impairment Assessors

Appendix F

Chair Procurement Process

Following an invitational competitive procurement through a Request for Proposals (RFP) in accordance with the Province's procurement procedures, Dr. Pierre Côté was selected to chair the Catastrophic Impairment Expert Panel.

According to the Government of Ontario's Procurement Directive (s. 10.3.2.2), an invitational competitive procurement is the contractual acquisition (purchase or lease) by an Organization of any good or service, which enables some but not all suppliers to compete in a fair and open environment. Organizations conduct invitational competitive procurement by inviting three or more qualified suppliers to submit written proposals to supply goods or services as specified by the Organization.

Dr. Côté is an internationally recognized scientist in the Division of Health Care and Outcomes Research at the Toronto Western Research Institute. As Chair, he played an active role in selecting the members of the Panel, which was comprised of expert academics and clinicians, in cooperation with the Superintendent of Financial Services.

Appendix G

Stakeholders who made submissions

The following stakeholders provided FSCO with thirty-three submissions as part of this review. FSCO heard from a consumer, insurers, health care providers, assessment centres, and from the legal community. With the consent of stakeholders FSCO posted all of the submissions on its website (www.fsco.gov.on.ca).

The Advocates Society
Alliance of Community Medical Rehabilitation Providers
Association of Independent Assessment Centres
AXA Insurance (Canada)
Dr. Barry H. Brooker
Brain Injury Association of London & Region
Canadian Society of Chiropractic Evaluators
Consumer
The Coalition Representing Health Professionals in Auto Insurance Reform
(The) Co-operators
Four Counties Brain Injury Association
Insurance Bureau of Canada
Intact Financial Corporation
Medisys Corporate Health LP
Neurologic Rehabilitation Institute of Ontario
Ontario Bar Association
Ontario Brain Injury Association
Omega Medical Associates
Ontario Mutual Insurance Association
Ontario Neurotrauma Foundation
Ontario Psychological Association and Canadian Academy of Psychologists in Disability Assessment
Ontario Society of Occupational Society
Ontario Speech Language Association
Ontario Spinal Cord Injury Alliance Solutions
Ontario Trial Lawyers Association
Patricia Fleet (Occupational therapist in Independent Practice)
Lerners
Rehab First Inc.
TD Insurance
Thomson Rogers
Toronto Acquired Brain Injury Network
Toronto Rehabilitation Institute
Dr. William H. Gnam (Centre for Addiction and Mental Health)

Appendix H

Stakeholder Submissions

I appreciate the contributions made by our stakeholders responding to the Panel's report. As the Expert Panel's work and recommendations are based on emerging scientific knowledge, stakeholders were asked to support their submissions with scientific evidence. The following summarizes stakeholder reactions to the Catastrophic Impairment Expert Panel's Phase I Report.

New Clinical Tools

The Panel believes that fairness would be improved if the claimant with a catastrophic impairment receives benefits without undue delay and if the final determination of catastrophic impairment agrees with the natural evolution of an injury. To accomplish this, the Panel recommends new clinical tools be used to improve the definition's accuracy, relevance, clarity, validity, reliability and predictive ability.

Reactions:

- Insurers are in support of the standardization of assessment measurements.
- The legal community is wary of any change to the definition and feels that the industry is familiar with the current tools and therefore they should not be changed.
- Health care professionals mostly agree with the change in measurement tools but recommend lower thresholds so that more claimants would qualify as catastrophic.
- Some health care professionals are not in favour of using the ASIA scale.

Interim Benefits

The Panel recommended that interim benefits be provided to claimants who unequivocally require intensive and prolonged rehabilitation. The purpose is to ensure that these individuals have access to time-limited rehabilitation services in order to maximize their chance of achieving maximal recovery.

Reactions:

- Stakeholders generally feel that the recommendations regarding interim catastrophic status and benefits were unclear because the Panel did not propose the types and amounts of benefits to be provided.
- Insurers feel the introduction of the interim benefits may potentially result in higher costs and more abuse to the system.
- Legal community would like to ensure that not qualifying for interim benefits would not disqualify a claimant from final catastrophic determination, and would like clarification regarding other procedural questions related to interim benefits.
- Health care professionals agree with interim status, especially as it would facilitate quicker access to treatment.

Requirement for admission to an in-patient rehabilitation facility

The Panel recommends admission to an in-patient rehabilitation facility be a requirement for catastrophic impairment designation for some injury types.

Reactions:

- Insurers are concerned that admission standards may be lowered because of pressure from legal representatives.
- Health care professionals feel in-patient requirement is problematic because it would result in delay for treatment, especially since the more seriously impaired claimants may not qualify for rehabilitation, and further, they claim it would put more strain on Ontario's health care system. They suggest including admission to out-patient and day patient rehabilitation facilities as well.
- The legal community disagrees with this recommendation.

Paediatrics

The Panel recommends an increase in the age of paediatric claimants from the current 16 to 18 years of age. Further, the Panel made a series of other recommendations on determination of catastrophic impairment among the paediatric population.

Reactions:

- Stakeholders support the increase in the paediatric age limit.
- Stakeholders would like to see more clarification regarding the automatic designation through the Level 1 trauma centre admittance, specifically whether or not being admitted would affect attaining the designation.
- Some members of the legal community are not convinced of the need to make any changes to the paediatric section of the definition.
- Some insurers are hesitant to adopt a change before additional study is conducted regarding the validity of the KOSCHI scale.
- Some health care professionals are in favour of the use of the KOSCHI scale, stating it is a better predictive tool of eventual rehabilitative outcome for paediatrics.

Blindness

In terms of blindness, the Panel agreed that only minor clarifications to the definition were needed. Specifically, an injury qualifies as catastrophic impairment if there is structural damage to the visual system. Therefore, hysterical blindness was excluded.

Reactions:

- No reaction from stakeholders.
- Insurers are in support of the changes.
- Legal community requests definition be provided for what constitutes legal blindness.

Glasgow Coma Scale

The Panel recommends that the Glasgow Coma Scale (GCS), as referenced in the current definition of catastrophic impairment in the SABS, be eliminated due to the low predictability on the long term outcomes with respect to catastrophic impairment. In addition to being a poor predictive tool, the GCS has a number of inherent problems including inaccurate scores with patients who have consumed alcohol, are intubated or are too young to understand verbal cues. The Panel recommends the Extended Glasgow Outcome Scale as the most appropriate alternative to the GCS.

Reactions:

- Insurers support the elimination of the use of the GCS.
- The legal community agrees that the GCS is flawed but disagrees with eliminating it because of familiarity and ease of use.
- Health care professionals are generally in favour of the replacement of the GCS with the GOS-E as a reasonable approach to the identification of rehabilitation needs in brain injuries.
- Some health care professionals are less enthusiastic in their support of the change from the GSC to the GOS-E as they feel they needed more studies regarding the GOS-E's validity to fully support the amendment.

Psychiatric Impairments

If the Panel recommendations are implemented as in the Report, psychological/behavioural impairments would no longer be included in the definition of catastrophic impairment. Such conditions would include chronic pain and fibromyalgia. However, this would not preclude a claimant meeting the psychiatric catastrophic impairment criteria.

Reactions

- The legal community disagrees with this recommendation, specifically that pain related impairments and non-psychiatric symptoms and syndromes should be considered.
- Some health care professionals, specifically psychologists, disagree with this recommendation; comments were made against the threshold being the Global Assessment of Functioning Scale (GAF) with a score of 40 or less.
- Some health care professionals feel that interim benefits should be made available to claimants with psychiatric impairments as well.

Combining physical and psychiatric impairments

The Panel recommends that combining physical and psychiatric impairment ratings not be allowed. The Panel did not accept that a combination of physical impairments and psychiatric impairments that independently do not meet the catastrophic impairment criteria could be treated as equal to paraplegia or blindness. The Panel also did not accept that combining impairments is a simple additive process.

Reactions:

- Insurers agree with the recommendation to not combine physical and psychiatric impairments.
- The legal community and health care professionals strongly disagree with not being able to combine physical and psychiatric impairments because it would reduce the number of claimants that would qualify as catastrophically impaired.