

Original Research Article

Impact of unintentional injuries in 5-19-year-olds in Andhra Pradesh: addressing out-of-pocket expenses and catastrophic health expenditure

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ABSTRACT

Background: Children are considered the greatest asset in a married couple's life. If premature death/deformity occurs in those children, it is not only traumatic for the family but also results in the loss of productive man-years, which in turn influences the economic development of the country. In the present context, this study was intended to examine the impact of unintentional injuries (UIIs) in 5-19-year-olds in Andhra Pradesh (AP) and to address out-of-pocket expenses (OOPE) and catastrophic health expenditure (CHE).

Methods: Applied self-designed, pre-tested formats and collected data regarding the causes and consequences of UIIs in 5-19-year-olds from 2017 to 2021 under the Right to Information Act 2005, from government hospitals and the police department across the state. Furthermore, NCRB reports were used to collect deaths due to UII via the internet.

Results: Between 2017 and 2021, among 5-19-year-olds admitted to government hospitals (16,304) due to UIIs, an average of 290 disabilities and 1,100 fatalities (police records) occurred. According to the study, UIIs cost the injured children and their families INR 142,97,79,280 annually, as well as many students' school days and their families' working days. The study projected that the annual premium for students who are enrolled in government and aided schools in 1st-12th classes (37,45,208) across the AP state is INR 11,23,56,240.

Conclusions: If UIIs resulted in the children's injuries, disabilities, or deaths, the family's grief is immeasurable. Therefore, governments should be held accountable for protecting children from these injuries and ensuring the fiscal growth of their families and the country.

Keywords: Injuries, Out-of-pocket expenses, Safety insurance

INTRODUCTION

Children are considered the greatest asset in a married couple's life. If premature death/deformity occurs in those children, it is not only traumatic for the family but also results in the loss of productive man-years, which in turn influences the economic development of the country. On the contrary, children are the most neglected group in society.

In this context, this study was intended to examine the impact of UIIs in 5-19-year-olds in AP and to address OOPE and CHE following the identification of suitable

measures to address them. At this juncture, the following definitions have to be understood.

Operational definitions

Unintentional injury

"It is an unexpected incident that may result in injury, deformity, or death to the injured that takes a toll on the emotional well-being of the victim or and his/her family." The UIIs include road traffic injuries (RTIs), drowning, burns, electric injuries, falls, poisoning, animal bites, machine injuries, etc.

Disability

“The disability is a complex phenomenon, reflecting an interaction between features of a person’s body and features of the society in which he/she lives.”

Out-of-pocket expenses

These are expenditures directly made by households at the point of receiving health care.

Catastrophic health expenditure

It is defined as “any household’s OOPE towards health that exceeds a certain proportion of a household’s financial ability”.

Distressed health financing

It is defined as “a situation when a household has to borrow money or sell its property or assets, or when it receives contributions from friends/relatives to meet its healthcare expenses”.

Disability-adjusted life year (DALY)

It is a measure of overall disease burden, representing a year lost due to ill health, disability, or early death.

Personal accident insurance policy/Student safety insurance policy (SSIP)

This policy provides complete financial protection to the insured members against uncertainties such as accidental death or bodily injuries and covers permanent (complete/partial) disabilities resulting from a UII, but is not intended. As such, the policy is confined to students and is called the “SSIP”.

In the present context, the study reviewed the available literature on the impact of UIIs and their consequences; the concerted efforts by the statutory bodies worldwide to prevent them among students; and the provision of student safety insurance (SSI) to address CHE and OOPE as follows:

Impact of UIIs and their consequences

International studies

According to the World Health Organization (WHO), worldwide, about 9,50,000 children aged 18 years or younger died due to an injury, and up to 50% of young children with UIIs who were present at a hospital were left with some form of disability every year.¹ Lao et al found that in China, the total hospitalization cost for external causes of UIIs among 0-14-year-olds in 2002 and 2003 was US \$1,033,876, and the mean cost was US \$166.30 per case. The total length of stay (LOS) in the hospital was 1,06,915 days, and the mean LOS was 17.2

days per case.² The studies conducted in Bangladesh and Kenya found that the average loss of school days was about 21 days, and 56.7% of pupils were absent from school due to UIIs, respectively.^{3,4}

National studies

Gururaj estimated that injuries result in the deaths of nearly 1,00,000 children every year among two million children hospitalized in India due to UIIs, which are predictable and preventable.⁵ WHO declared that in India, one dies every 3.6 minutes from RTI-related injury, with a total of 4,67,044 RTIs.^{6,7} ‘Safety 2024’ declared that there were 4,30,504 deaths due to UIIs in 2022 in India.⁸

Two-thirds of victims only presented to the appropriate health facility for treatment due to poor awareness levels about the consequences of animal bites.⁹ The dog bite incidence rate was higher in urban (30.1/1,000) than rural (19.6/1,000) areas, with an average of 25.2/1,000 population.¹⁰ Ichhpujani et al documented the respondents’ recommendations for managing bite wounds, including the use of locally produced products such as herbal paste (4%), kerosene oil (2%), lime (7%), turmeric (6%), chillies (11%), etc.¹¹

A research study conducted in 2021 in the Ananthapuramu district of AP found that around 41.0% were taken to government hospitals, and 6% consulted local healers for treatment after the injury, mostly for snake or scorpion bites. The average OOPE for hospitalisation in government hospitals for each injured child was 22,723 Indian rupees (INR). On average, each injured child is hospitalized for 8.7 days. For every two injured children who were admitted to the hospital, three attendants were needed to care for them.¹²

The 75th round of the National Sample Survey (NSS 2017-18) estimated that the CHE in public and private health facilities was 10% and 25% of annual per capita household income, respectively. The major source of CHE was through household income/savings. Borrowings from various sources, selling household assets, and help from friends or relatives are other popular sources of distress finance. The prevalence of CHE was significantly higher among rural communities, lower-income groups, and the less literate. Conversely, the survey found that the average length of hospital stay was 8.7 days.¹³

OOPE remains a significant financial burden, contributing to CHE and impoverishment for households after an injury.¹⁴ Another study found that 49.3% of injury-affected households experienced CHE, with 17.8% of households falling into poverty and 52.1% of households using distressed sources due to OOPE for hospitalisation.¹⁵ The average total expenditure per day for hospitalization was INR 2,833 in public hospitals and INR 6,788 in private hospitals.¹⁶

The mean monthly OOPE for the accidental injury-affected population was INR 2,672.46 (US\$ 41.06) and INR 3,041.64 (US\$ 46.73) in inpatient and outpatient care, respectively.¹⁷ The indirect productivity loss due to UIIs for each injured person was INR 8,164 (USD 128).¹⁸ The average OOPE for the 12 months after discharge was 2.5 times higher than OOPE during hospitalization.¹⁹ The union government, the state governments, and households (including insurance contributions) in India contributed INR 1,25,854 crores (15.94% of GDP), INR 1,71,952 crores (21.77% of GDP), and about INR 3,99,136 crores, respectively, towards health.²⁰ The World Bank estimated that the cost of RTIs and serious injuries was 7.5% of India's GDP, or INR 12.9 lakh crore (US \$19.2 billion) for 2016.²¹

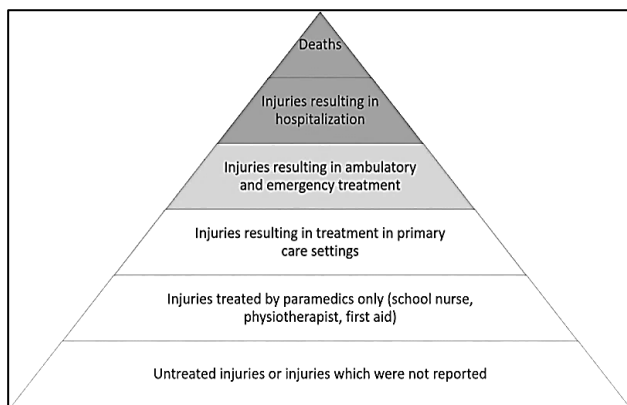


Figure 1: Child injuries: the possibility for prevention. (Accessed via the internet on 20 March 2021).

The pyramid (Figure 1) highlights that death as a small group remains at the top, followed by hospitalization and the remaining injured people at the base. The sizes of these groups, however, indicate that many injuries treated in the outpatient department can be prevented and that not all injuries require hospitalization.²² Nanda et al recommended increasing government health expenditure, strengthening public healthcare facilities, increasing health insurance enrolment, and prioritizing prevention strategies and safety interventions.¹⁵ A strict motor vehicle act, administrative and political determination, awareness campaigns, and traffic norms can help reduce accidental fatalities in the country.¹⁷ Unless injury prevention is included in child health programmes, the impact of the largest investments in child survival activities may be lost.²³

Observance of student safety

Some of the universities and nations below are observing student safety (without safety insurance) to combat UIIs.

International level

Canada: title of the campaign- National safety week/campaign. USA: title of the campaign- America's safe schools week, national school bus safety

week and student safety week in slippery rock university. Lancashire, UK: title of the campaign- National student fire safety week. Accessed via internet on 21 January 2026.

Some of the universities and nations below are observing student safety (without safety insurance) to combat UIIs.⁸

National level

The road safety week observance campaign has been implemented during the second week of January every year since 2011 in India to prevent RTIs only, but not other UIIs.

While addressing the 7th edition of FICCI Road Safety Awards and Symposium 2025 Mr. Gadkari said his Ministry is collaborating with the Education Ministry to integrate road safety lessons into school and college curricula across all regional languages.²⁴

The Chief Minister of Kerala (2019) perceived that swimming would be a part of the school curriculum and that swimming pools would be constructed in all 140 assembly segments.²⁵

The manual developed by the National Commission for Protection of Child Rights–2021 emphasized the safety and security of children in schools and on school premises. (Not focused on the injuries occurring off school premises, CHE, and OOPE).²⁶

Student safety insurance (SSI) offering states/districts across India

Table 1 reveals that the Rajasthan state has been implementing the student safety accidental insurance policy for a sum assured (SA) of INR 1 lakh for all students of 1st-12th classes studying in government and aided schools since 1996 by collecting INR 50 from each student annually upon admission into the class. If death or complete disability occurs to the insured student due to UII, full SA, or, if partially disabled, half of the SA will be paid to the nominee/disabled person, respectively. If any claimant is admitted to hospital due to UII for more than 24 hours, a maximum of INR 5,000 will be paid.²⁷

According to Table 2, Samagra Siksha (formerly Sarva Siksha Abhiyan- SSA), Ananthapuramu district, AP, in collaboration with Oriental Insurance Company (OIC), offers SSI (titled Balala Bhima) for SA INR 25,000 to 1st-10th class students enrolled in government and aided schools since 2010. Each student must pay INR 5 annually upon admission to class. If death or complete disability occurs to the insured student due to UII, full SA or partial disability of INR 10,000 will be paid to the nominee/disabled person, respectively. Without collaboration with the OIC, Samagra Siksha has been implementing the scheme since 2022, with the Joint Collector acting as its chair.²⁸

Table 1: Salient features of the student safety accidental insurance policy- Rajasthan state.

Sum assured for each INR	Yearly premium INR	Financial benefits if any of the following occurred permanently to the student; INR				If the claimant admitted in the hospital due to accident more than 24 hours, a maximum amount payment; INR
		Death	Complete disability	Partial disability	Payable differently on loss of body parts also	
1,00,000	50	1,00,000	1,00,000	50,000		5,000/

Source: Collected under RTI Act 2005 and via internet; INR = Indian rupees.

Table 2: Balala Bhima salient features and claimed status.

Yearly average students enrolled	Sum assured for each INR	Yearly premium INR	Financial benefits if any of the following occurred permanently to the student; INR			Claimed (injured) status since 14 October 2010 to April 2018			
			Death	Complete disability	Partial disability	No. of deaths	No. of disabled	Total	Yearly average
3,42,730	25,000	5	25,000	25,000	10,000	290	10	300	40

Source: SSA, Ananthapuramu.

Table 3: Salient features of the student safety accidental insurance policy- Kerala state.

Sum assured for each INR	Yearly premium INR	Financial benefits if any of the following occurred permanently to the student; INR			If the claimant admitted in the hospital due to accident more than 24 hours, a maximum amount payment	Outpatient expenses, if met an accident up to:
		Death	Complete disability	Partial disability		
3,00,000	30	3,00,000	3,00,000	NA	INR 75,000/	INR 5,000/

Source: Accessed via internet; INR = Indian rupees; NA = not available

Table 3 shows that the Keralan State Insurance Department is offering the student safety accidental insurance policy for students studying in 1st-12th class in government and aided schools for the academic year 2026-27 in collaboration with the OIC for SA of INR 3,00,000. The Government of Keralan is paying the annual premium for each student at INR 30. If death or complete disability occurs to the insured student due to UII, full SA will be paid to the nominee, and if any claimant is admitted to hospital due to UII for more than 24 hours, a maximum of INR 75,000 will be paid.^{29,30}

Some universities, including Indian Maritime University in Chennai, IIT in Kharagpur, the University of Mumbai, MNNIT University in Allahabad, and others, also provide SSI with various kinds of benefits, including medical reimbursement, future academic fee waivers, insurance for essential equipment, and accidental insurance coverage for the breadwinner of the family.³¹

Research gaps and need for the study

Despite spending a lot of money, some of the injured students either die or become disabled as a result of UIIs. Additionally, hospitalization causes them to miss school days. Following a child's incident, the parents are compelled to sell their assets or take out loans to cover OOPE, which drives them into poverty. Therefore, child injury must be a central focus of all initiatives for improving children's overall well-being. But evidence-based studies have not been conducted in AP to craft

policies to prevent UIIs among children and to provide financial support. Hence, the study sought to fill the gaps and provides an opportunity for policymakers and administrators to craft suitable policies and strategies to address the associated factors.

General objective

To apprise the government of the severity of UIIs occurring among 5-19-year-olds and to ensure that the parents of children affected by such injuries do not face financial hardship regarding their medical and other expenses.

Specific objectives

To evaluate the extent of UIIs and to assess the OOPE incurred due to UIIs among 5-19-year-olds in the state. To inform the government about implementing student safety and insurance observance day across the state. To ensure that no child experiences UIIs and that no parent of an injured child experiences CHE or OOPE if their child experiences UIIs.

Hypothesis

There exists a significant association between the prevalence of UIIs among 5-19-year-olds and loss of productive man-years, which affects the economic development of families and the nation.

METHODS

Identification of respondents

Children aged 5-19 years who suffered UIIs for 5 years, from 2017 to 2021, across the state of AP, were identified as respondents.

Data collection

A descriptive cross-sectional study was conducted for 2 years (October 2022 to September 2024) across the state of AP. Self-designed, pretested formats were employed to collect data on the causes and consequences of UIIs among 5-19-year-olds over a period of five years, from 2017 to 2021, from all primary, secondary, and tertiary hospitals, as well as the police department, across the state under the Right to Information Act, 2005. The format designed for the hospitals comprised admissions, deaths, disabilities, discharges, and referrals, and the format for the police department focused on injury-wise registration and deaths. On the contrary, National Crime Records Bureau (NCRB) reports were used to collect deaths due to UII across all ages from 2014 to 2022 via the internet. Institutions that wished to share data were included, and those that did not wish to were excluded from the study.

Statistical analysis

The collected data were entered into Microsoft Office Excel 2010, and SPSS 21.0 was used for statistical analysis. Mostly, frequency and cross-tabulation were employed with appropriate statistical percentages and ratios. The Chi-square test was employed to determine the level of significance, with $p < 0.05$ being deemed statistically significant. The tables were designed based on the available data and interpreted. The families experienced indirect productivity loss, OOPE, workdays, and school days as a result of UII among 5-19-year-olds across AP, who assessed the results of previous studies conducted in the state of AP and the nation^{12,13,18,19}. Furthermore, the annual premium of SSI for students studying in the 1st-12th class, enrolled in AP, is estimated to be on par with the Keralan students mentioned in references.^{29,30}

RESULTS

According to data gathered from hospitals (Table 4), UIIs among 5-19-year-olds resulted in an average of 16,304 admissions (about 45/day) to government hospitals annually, with an incidence of 108/1,00,000 children. Remarkably, among those, 152 children died, and 290 were disabled.

Table 4: Yearly UIIs and their consequences among 5-19-year-olds registered in the medical and health department across Andhra Pradesh.

Year	Admitted	Deformed	Died	Discharged	Referred
2017	14344	233	109	12689	1029
2018	15611	228	126	13905	1070
2019	16178	202	169	14401	1030
2020	15990	213	153	14569	897
2021	19399	575	201	17121	1196
Total	81522	1451	758	72685	5222
Year-wise average	16,304	290	152	14,537	1,044

Source: Collected under the RTI Act 2005.

Table 5: Yearly UIIs and deaths in 5–19-year-olds procured from the police department, Andhra Pradesh.

Year	Road traffic injuries		Drowning		Animal, snake and scorpion bites		Electrical and Fire		Others (falls, murders, thunders etc.		Total	
	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths	Injuries	Deaths
2017	1768	526	224	217	30	30	112	101	173	164	2307	1038
2018	1594	487	238	233	33	32	89	86	197	192	2151	1030
2019	1687	525	241	240	41	39	114	97	159	156	2242	1057
2020	1458	461	380	370	32	32	98	90	205	188	2173	1141
2021	1658	506	362	357	46	45	112	101	234	223	2412	1232
Total	8165	2505	1445	1417	182	178	525	475	968	923	11285	5498
Year-wise average	1,633	501	289	283	36	36	105	95	194	185	2,257	1,100

Source: Collected from the Police department, AP under the RTI Act 2005.

Table 6: Yearly accidental deaths occurred in AP due to UIIs among all ages registered by NCRB.

Year	Age in years					Grand total
	0-18	18-30	30-45	45-60	60 +	
2014	1100	4293	5805	3494	1657	16349
2015	1342	4460	5761	3844	2005	17412
2016	1367	4508	6396	3698	1839	17808
2017	1621	4388	5466	3956	1807	17238
2018	1427	4403	5207	3971	1801	16809
2019	1150	4256	5966	4413	2153	17938
2020	1226	3295	4624	3618	1890	14653
2021	1143	3705	5309	3986	1901	16044
2022	1181	3874	5667	3996	1975	16693
Total	11557	37182	50201	34976	17028	150944
Year-wise average	1,284	4,131	5,579	3,886	1,892	16,772

Source: Yearly accidental deaths in India, as registered by the NCRB, accessed via internet.

Table 7: Assessment of OOPE incurred, indirect productivity and work/school days loss annually due to UIIs among 5-19-year-olds across Andhra Pradesh.

Average year-wise admissions to government hospitals	OOPE for hospitalization to government hospitals (as per the reference 12) INR		OOPE over 12 months, following discharge (as per the reference-19) INR		Indirect productivity loss for all admissions in govt. hospital (as per the reference-18) INR		Estimated grand total of financial loss INR (Col. 3+5+7)	Total No. of school days lost as per the references 12 and 13 (@ 8.7 days/student)	Total no. of working days lost for attendants as per the references 12 and 13 (@ 1.5 attendant/day/8.7 days for each hospitalised) Col. 1*1.5*8.7
	For each admission	For all hospital admissions (Col. 1*2)	Each discharge @ 2.5 times of hospital expenses (Col. 2*2.5)	For all govt. hospital admissions (Col. 1*4)	For each admission	For all hospital admissions (Col. 1*6)			
1	2	3	4	5	6	7	8	9	10
16,304	22,723	37,04,75,792	56,808	92,61,97,632	8,164	13,31,05,856	142,97,79,280	1,41,845	2,12,767

Source: Assessed based on the statistics drawn from earlier studies; Col. = Column.

Table 8: Estimation of annual premium (@ INR 30/student) for students enrolled in 1st-12th class in the Andhra Pradesh state, on par with Kerala students.

Sum assured for each student INR	Yearly premium for each student INR	No. of students enrolled as per UDISE 2024-25 in govt. and aided schools				in private recognised schools		premium required grand total (col.6+8)
		In govt. schools	In aided schools	Total students (col. 3+4)	Premium estimated INR	No. of students enrolled	Premium estimated INR	
1	2	3	4	5	6	7	8	9
3,00,000	30	36,43,083	1,02,125	37,45,208	11,23,56,240	47,01,905	14,10,57,150	25,34,13,390

Source: Students particulars drawn from UDISE and annual premium from the references 28 and 29. UDISE= Unified District Information System

The data received from the police department (Table 5) reveal that among all injured (2,257) 5-19-year-olds, about half of them (48.7% of 1,100) had passed away. Of

all injuries, the majority are RTIs (72.3% of 1,633), followed by drowning (12.8% of 289). Regrettably, all injuries due to snake/scorpion bites (100%), the majority

of drowning (98%), electrical and fire injuries (90%), and RTIs (30.6%) were fatal.

According to NCRB data (Table 6), UIIs resulted in the deaths, on average per year, of 16,772 people of all ages in the AP state. Of those, the majority occurred in the age groups 18-30, 30-45, and 45-60 (24.6%, 33.2%, and 22.8%, respectively).³²

Table 7 shows that INR 142,97,79,280 per annum has been lost by the injured children's families due to hospitalization, post-discharge, and indirect productivity loss as a result of UIIs for children. Furthermore, it is projected that UIIs cost injured people's families 2,12,767 working days and 1,41,845 school days every year.

Table 8 suggests that the annual premium for students who are enrolled in government and aided schools in 1st-12th classes (37,45,208) across the AP state, on par with that of Keralan students, is INR 11,23,56,240. The predicted annual premium will increase to INR 25,34,13,390 if pupils attending recognized private schools (47,01,905) are considered.

DISCUSSION

This study considered only children admitted to government hospitals. The severity of the injuries and their consequences could increase if data from private hospitals were considered. Many injured people may have died before arriving at the hospital, and such occurrences and fatalities may not be documented in the hospital or police records. Some hospitals may not have provided the relevant data, or there may be under-reporting. If a government agency can be established exclusively to register these injuries, it may enable assessment of the extent of the problem and the development of plans and regulations to prevent UIIs. Similar reports were found in earlier studies.^{1,5-8,12} Furthermore, although the percentage of RTIs was larger (72.3%) than that of other UIIs, the death rates from snake/scorpion bites (100%), drowning (98%), and electrical and fire (90%) were higher than those from RTIs (30.6%). The situation could be brought on by a lack of awareness in communities regarding the need for quick corrective action to keep injured people alive during health emergencies; the inaccessibility of healthcare facilities; a lack of transportation; financial limitations; the absence of caretakers; and so on. To save the children, required action should be initiated by the government as well as the community. Previous studies found a similar outcome.^{11,12}

The study found that the productive age group of 18-60-year-olds accounted for 81.0% of all UII-related deaths reported by the NCRB. The death of this group is a loss for the family; it also results in the loss of productive man-years and distresses the economic growth of the nation, which needs to be addressed. Previous research reported similar results.^{20,21}

The study assesses that if a child were admitted to a private hospital for an injury, the average projected cost (hospitalization, post-discharge, and indirect productive loss) would be higher than if the injured child were admitted to a government hospital. Post-injury rest may enhance this cost. The DALYs (number of year lost due to ill health, disability, or early death) may increase economic losses to the injured's family as well as the nation. Similar reports were found in earlier studies.^{2-4,12-14,16,19} This study estimated that student safety insurance can cover OOPE, provided it is made available to students throughout the state of AP at a meagre annual premium, as stated in Table 8.

Limitations

This study has some limitations. There is no statutory governmental organization for registering UIIs among children and their consequences. Despite the efforts to gather data, the researcher believes that important data may have been under-reported or not reported at all, which could affect the data's accuracy. It is challenging to generalize the results of this study without collecting qualitative data exclusively on the experiences and opinions of the injured and their parents. Such data will be essential to refine the findings. The researcher believed that with this inadequate data, it would be difficult to convince decision-makers that lapses in averting UIIs are a serious issue. As a result, it will be challenging to determine how to prioritize and create successful initiatives.

CONCLUSION

Governments have been encouraging the modest family norm since independent India, and people are adopting it. In this scenario, the family's grief is intolerable if the children of parents who adopted a small family were injured, disabled, or died as a result of UIIs. On the contrary, Article 21 of the Indian Constitution provides the right to life, which the judiciary has read liberally to include the right to a livelihood, shelter, and a clean environment. Article 38(1) outlines the fundamental right to welfare and requires the state to promote social stability to improve the well-being of its citizens. It states that the state has a responsibility to promote the welfare of citizens and work to secure and protect them as effectively as possible. Article 45 provides for early childhood care and education for children below the age of six years. Therefore, this study proved that not only parents but everyone in civil society and the state should be held accountable for protecting children from UIIs and ensuring the fiscal growth of their families, the country, and society at large. Furthermore, this has proved the hypothesis.

Recommendations

Based on the statistical data provided in this study, the researcher developed a cost-effective, integrated policy

consisting of student safety and security, as well as accident insurance, known as “student safety and insurance (SSI) observance day”.

If safety insurance is provided for students, there is a chance of registering the particulars of all injuries, enabling the design of new policies and plans to prevent/control UIIs. In addition to saving parents numerous workdays and school days, the aforementioned efforts can save children’s lives. It can reduce the excess burden on governments and hospitals. The deformity of injured children affects more than just the family; it can be an excessive burden on the country’s overall development. Furthermore, the amount claimed from SSI will offer financial stability to the student who suffered from a disability or, in the event of death, to their dependent parents.

The inclusion of safety measures and the significance of insurance in the curriculum facilitate easy internalization among the students. Students, who know about insurance and safety precautions, not only save their own lives but also the lives of their parents and offspring after they are born. If students are inculcating the habit of having insurance, it can continue into their future lives. As a result, a wholesome society will emerge.

The estimated amount of INR 142,97,79,280 (more than five times the predicted annual premium) that the families of injured children lose due to hospitalization (in government hospitals only), post-discharge, and indirect productivity loss as a result of UIIs can be saved by paying the predicted annual premium of INR 25,34,13,390 towards safety insurance for all students (84,47,113) enrolled in government, aided, and private schools in 1st-12th classes. The extension of SSI to private schools is subject to the government’s decision. The campaign may also provide positive mileage for the government.

It is also suggested to incorporate the content and significance of the SSI with the Rashtriya Bal Swasthya Karyakram (RBSK), which is designed and implemented to improve the health of children (0-18-year-olds) by preventing the 4 Ds (defects at birth, deficiencies, diseases, and disabilities), as mentioned in the earlier study.

In addition to SSI with a nominal additional premium, some educational institutions are offering safety insurance for the breadwinner of the family and waiving future tuition fees in collaboration with general insurance companies, as detailed in section III (D) of this article’s introduction. This would help students continue their education without facing financial hardship while the family’s breadwinner passes away. Government schools in the state are offering free midday meals, fee reimbursement, uniforms, academic books, notebooks, etc. In addition, if the state government offers SSI along

with the free services discussed, it will be more useful to students and their families.

It is suggested that the “student safety and insurance observance day” campaign be held in memory of His Excellency Abdul Kalam, the 11th President of India and a well-known aerospace scientist, who passed away on 27-07-2015 while lecturing to students at the Indian Institute of Management, Shillong. In general, as of July, school/college admissions will be over, and it is the right time to commence the campaign on the 27th of July annually.

“Investment in student safety insurance can derive a ‘triple dividend’ by improving health now, enhancing it throughout the life course, and contributing to the health of future generations”

Strategies recommended

Strict adherence to the implementation of guidelines laid out in the manual on safety and security of children in schools, developed by the National Commission for Protection of Child Rights- 2021.

Enhancing the abilities of relevant stakeholders, including children, teachers, hostel wardens, parents, employees of line departments (including fire, power, police, road transport, ICDS, etc.), community leaders, school bus drivers and cleaners, non-governmental organizations, etc.

Developing and implementing cost-effective, culture-specific, and sustainable rehabilitation programmes, especially in rural areas.

Actively supporting and evaluating interventions such as helmet-use promotion, reducing alcohol-related driving, and enhancing health services for post-discharge cases. Enhancing the skills of health professionals in trauma care to avoid time delays and inappropriate referrals.

Strengthening research on understanding injury/risk factors and mechanisms.

Integration of child health and developmental activities into child injury prevention programmes as a comprehensive approach.

Offering safety insurance to all target-group students.

The government/philanthropists/students may contribute to the premium.

Establishment of educational institutions away from busy dwellings and highways.

The government should pass an order that every school bus/van should be equipped with an advanced driver assistance system level II (upgradable to level III) safety

system and a well-trained driver, cleaner, and caretaker for the children.

Establishment of swimming pools and training in swimming for all students under the guidance of professionals/elderly people.

Displaying the warning signboards near the canals, rivers, ponds, lakes, seashores, tanks, dams, and blind curves/obstacles on the roads.

Removal of grass, bushes, and garbage around the schools and dwellings.

Arrangement of rails along the staircases and window guards.

Avoiding the provocation of animals/insects such as bullocks, cows, dogs, cats, bees, and wasps.

Display of addresses of the nearest referral hospital and 108 services with phone numbers in all educational institutions.

Prioritizing the development, implementation, and evaluation of the national child injury prevention policy and action plans to prevent and control injuries.

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