HOW TO MEASURE OUR IMPACT ON SOCIETY: AN ILLUSTRATION OF SOCIAL IMPACT ANALYSIS

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Abstract

The purpose of this paper is to help organizations facing the challenge of measuring the social impact of their activities. Although examples of environmental effects' analyses abound, this is not the case for the analysis of social impact. To illustrate how organizations can demonstrate their impact on society, we evaluated the activities of the Incredible Years (IY) parenting program using the social return on investment (SROI) approach, considering not only the direct impact of the program on children, but a broader range of outcomes for different stakeholders. We show that the monetized impacts of the program are about 10 times higher than the costs of the program. The SROI as an evaluation approach is generally applicable to activities of for-profit and nonprofit organizations, and serves as a reference to demonstrate the value of expected social impact to investors and funders. Therefore, SROI is a valuable tool not only for managers but for policy makers as well. We discuss the steps, data requirement, interpretation of results, and limitations of the social impact analysis.

Keywords: *social impact, social impact analysis, SROI, ESG, parenting program*

1 INTRODUCTION

In light of sustainable development, a modern organization is expected to operate and demonstrate its performance not only in terms of maximizing value for the owner but also in terms of impact on society and the environment (e.g., United Nations, 2015; European Commission, 2022a). This holds for both companies and nonprofit organizations (NPOs). The incentive for measuring and reporting firms' social impact comes from the market—from both buyers and peers. Additionally, the regulators in particular economic sectors might prescribe the scope and depth of reporting on social impacts by following the set goals of sustainable development (European Commission, 2014). The Proposal for a CSR Directive (European Commission, 2022d) indicates that reporting on social impacts will be even more demanding in terms of depth and scope, and will be integrated into the overarching non-financial reporting framework (European Commission, 2014). This also is proposed by the environmental, social, and governance criteria of the so-called ESG initiative (European Commission, 2020b). In particular, when organizations are co-funded by public sources to create social value, in addition to their financial performance, they also need to focus on the measurement of impacts on society (Millar & Hall, 2013). Nonprofit organizations, which largely are co-financed by public funds, represent a growing sector in developed countries, bringing calls for more legitimization and evidence of effectiveness to provide accountability and justify

the funding (Arvidson, Lyon, McKay, & Moro, 2013). Accordingly, managers of nonprofit organizations also are expected to justify the spending of public funds for social impact by reporting on their programs' efficiency and effectiveness. All this means that social impact analysis will gain importance as a tool to identify, measure, and evaluate the social desirability of activities.

This paper addresses these important and timely issues. Although examples of environmental effects analyses abound, this is not the case for the analysis of social impact. This corresponds to the development of the regulatory framework, which currently is more developed for environmental effects (European Commission, 2020c). Therefore the purpose of this paper is to help organizations facing the challenge of measuring the social impact of their activities by providing an example. We use the case of the Incredible Years (IY) parenting program to illustrate the steps, data requirements, interpretation of results, and limitations of such analysis.

The case was chosen because the program has a range of effects, occurring across a longer time frame and for multiple stakeholders. This allows us to demonstrate how to capture such features within the social impact analysis. We used the social return on investment (SROI) approach, taking into account not just the program's direct effects on the children but a broader set of outcomes for different stakeholders. Namely, studies show that parenting training programs are an extremely effective way to reduce children's behavioral problems and improve parent–child relationships (Hutchings et al., 2007), given that parents have a crucial influence on a child's behavior (Gardner, 1987). Such programs provide better chances to finish schooling and to prosper in life, and better quality of life for parents and siblings as well. Furthermore, these effects extend beyond their families to communities and society in the broadest sense. Still, the target groups of such programs often represent minor segments of the population, and the positive direct effects are challenging to evaluate, so the economic viability of these programs is often questioned despite the undoubtedly positive quality effects. Moreover, there is growing pressure on the program initiators to demonstrate empirically the value of the expected social impact created by invested funds. Because the SROI is based on the monetary value of inputs and impacts, managers can use the results of such analyses for this purpose.

We define social impact analysis as an umbrella term for the variety of methodological approaches developed in different literature streams. The professional and academic community recognizes that mere economic indicators of performance, such as costs and profits, do not adequately reflect the broad scope of impacts expected from organizations and projects aiming to create social value. Many attempts have been proposed in economics, accounting, and the social impact assessment literature (e.g., Burdge, 2003; Freudenburg, 1986; ICPGSIA, 2003; O'Faircheallaigh, 2009) to improve the performance measurement (and management) in this respect. The SROI approach is just one possible method to systematically identify, measure, and evaluate a broader set of individual and social effects. SROI has been applied across different public health areas, including health promotion, mental health, sexual and reproductive health, child health, nutrition, healthcare management, health education, and environmental health (see review by Banke-Thomas, Madaj, & Van den Broek, 2015). Recently, SROI studies also have emerged in the areas of physical activity and sport (see review by Gosselin, Boccanfuso, & Laberge, 2020), as well as in social enterprises to measure their social value (Nicholls, 2007).

The SROI value is based on the monetary valuation of inputs and the monetary valuation of impacts of the analyzed program or activities. Although measuring such programs' inputs usually is not problematic, measuring the benefits of these programs in a way that allows us to include them in the SROI calculation, namely in money terms, poses a considerable challenge to scholars and practitioners (Millar & Hall, 2013; Maier, Schober, Simsa, and Millner, 2015; Arvidson et al., 2013). Our study contributes to the growing knowledge base in economic evaluations of social impact by addressing some of the challenges of measuring and monetizing the effects in economic evaluations. The example we use can be generalized to many similar activities, particularly those aimed at preventing negative impacts, implemented by different organizations.

This paper first presents a literature review of the effects of parenting programs and social impact measurement. Then we explain the SROI technique for economic evaluation. Next we explain how we identified and measured the social impact of the IY parenting program carried out in the period 2017–2019 in Slovenia. The results section contains the empirical results for the studied case, and the conclusion wraps up the paper.

2   THEORETICAL BACKGROUND

In this section, we first review the literature on the effects of parenting programs to understand where to look for stakeholders and social impacts. Second, we briefly overview the analytical approaches to measure social impact.

2.1 Effects of Parenting Programs

The literature on the effects of intervention and preventive health programs, including parenting programs, confirms their short- and long-term positive impact on the health and well-being of individuals and their immediate community (Copeland, Shanahan, Costello, and Angold, 2009; Scott, Knapp, Henderson, and Maughan, 2001). Intervening early in childhood is essential for preventing or mitigating later consequences of mental disorders (Pardini and Frick, 2013), such as failure in school, suicidal tendencies, crime, teen pregnancy, mental and physical health problems, social isolation, and even death. Parenting programs effectively reduce children's behavioral issues; improve parenting skills; and reduce anxiety, stress, and depression among parents (Hutchings et al., 2007).

The IY parenting program for parents of children aged 3–8 includes preventive interventions in the field of mental health of children. Parents' participation in such programs statistically significantly reduces behavioral disorders in children (Menting, de Castro, & Matthys, 2013; O'Neill, McGilloway, Donnelly, Bywater, & Kelly, 2010), thus reducing or preventing the adverse effects of behavioral disorders with early onset on education, health, addiction, delinquency and crime, teen pregnancy, child neglect, etc. IY improves

parenting skills; relationships within the family; the self-image of family members; social, emotional, and communication skills of children; willingness to learn; prevention of serious behavioral disorders; the interaction between children and parents; relationships and connections; parents' problem-solving skills; and children's social skills and emotional control, school-readiness, and readiness for problem-solving; and reduces children's behavioral and emotional problems (see Menting et al. 2013 for a review of studies).

Long-term and, to a large extent, measurable program benefits include social savings in the field of various health services (from the treatment of psychiatric disorders to chronic non-infectious diseases), at all levels of education, in social services, in the prevention of consumption of legal and illegal drugs and non-chemical addiction, and in the field of juvenile delinquency and crime (Menting et al. 2013). The program also contributes to children's better academic achievement and to a greater level of their economic activity in adulthood, thus reducing the need for compensation for unemployment and social transfers (Cleary, Fitzgerald, and Nixon, 2004; Colman et al. 2009; Scott et al. 2001).

2.2 Social Impact Measurement

In this paper, we understand "social impact" as an impact on society. Typically, the intended direct effect of an activity is a positive impact, so we also call it a "benefit" for society. There are many calls for more examples, especially studies that enable comparison in monetary terms either within or across organizations. Because the analyses need to include effects occurring for a range of stakeholders, such calculations are complex and demand considerable resources. Various approaches to social impact measurement share the aim of measuring and evaluating the impacts as consequences of activities on relevant target groups (stakeholders). We identified three areas in which methods were developed for capturing the impacts of activities creating social instead of purely monetary added value: economics, social accounting, and social impact assessment. In this section, we briefly summarize the main approaches.

Traditionally, economic evaluation methods such as cost-effectiveness, cost-utility, and cost–benefit analyses (CBA) have been used to assess the value-for-money of public programs, especially in the health sector. For example, CBA is based on the demand function and evaluates benefits in money terms, either by the willingness-to-pay or willingness-to-accept approach (Then, Schober, Rauscher, & Kehl, 2017). In the accounting field, social accounting emerged as a contemporary approach to value and measure social impacts (Richmond, Mook, & Quarter, 2003). This approach focuses on including stakeholder input among data analyzed for the accounting statements (Richmond et al., 2003) and on providing a common language and metric for comparing heterogeneous social impacts (Mook, 2013). Examples include the Global Impact Investing Ratings System (GIIRS, 2008) and the Impact Reporting and Investment Standards (IRIS, 2009).

The social return on investment method developed from traditional CBA and social accounting. The SROI approach originated from the social impact literature and was introduced in the 1990s by the Roberts Enterprise Development Foundation. In addition to some professional analyses, several academic studies produced different advanced analytical techniques for calculating the SROI (Adler, 2006; Gair, 2002; Hammitt & Haninger, 2011). The SROI has been promoted as a more "holistic" approach to demonstrating value for money (Banke-Thomas, Madaj, Charles, & van den Broek, 2015).

Both the SROI and CBA try to evaluate the effects of an activity or a program at the societal level. Accordingly, the purpose of undertaking a cost–benefit analysis is similar, if not identical, to that of undertaking an analysis of social return on investment (Cordes 2017). Some even define SROI as "a form of adjusted cost-benefit analysis that takes into account, more holistically, the various types of impact" that programs have (Arvidson et al., 2010). SROI also has been described as an extension of the CBA to incorporate in addition the broader socioeconomic and environmental outcomes (Banke-Thomas et al., 2015).

At the same time, several differences have been pointed out by the academic literature (e.g., Arvidson et al., 2010; Then et al., 2017). First, CBA differs from the SROI in the scope of the impacts considered. CBA has a narrower focus on the economic impacts with direct and indirect costs, and barely considers social, political, and cultural impacts. Compared with CBA, SROI analysis uses different terminology, focusing on the investment approach, including profit. In addition, there is a very strong explicit emphasis on stakeholders within SROI and the types of involvement they can have. Consultation with stakeholders and their importance is one of the strongest features of conducting a SROI. It appears within CBA but is given much less emphasis. This characteristic of "bottom-up" SROI (vs. "top-down" CBA) has been recognized by health economists (Edwards & Lawrence, 2021). SROI can be deployed as a management tool and integrated into organizational flows. Furthermore, SROI is presented as one way an organization may learn and use SROI to direct resources to areas with the most significant impact (Then et al., 2017). CBA is more likely to be conducted by external agents who report on the efficacy of particular proposals or interventions.

3 METHODOLOGY

3.1 The Analyzed Program

We analyzed the IY parenting program for parents of children aged 3–8, which was implemented in Slovenia in the 2017–2019 period. The effectiveness and transferability of the program have been studied for over 40 years in different cultural environments. The goals, structure, and implementation of the certified IY program are standardized across countries. The program includes mainly parents of children with behavioral issues who have been referred for or already are receiving treatment. In Slovenia, the IY pilot implementation started in the period 2015–2016 and, similar to other countries, yielded exceptional results. Consequently, in 2017, 10 IY centers were set up in five Slovenian regions. In the 2017–2019 period, funds were provided by the Ministry of Health and a consortium of partner institutions with the support of the local community and by the Ministry of Labor, Family, Social Affairs and Equal Opportunities. This study analyzed the costs of the program for the volume planned for 2018 and the benefits arising in a 10-year period after the implementation in 2018.

3.2 The SROI Analysis

The core of the SROI method is the "impact model," composed of several "impact chains"—one for each of the key stakeholders affected. In every chain, hypothetical relations between inputs, activities, and outputs are specified (Figure 1). Outputs are determined as directly measurable results of activities leading to the desired outcomes. Outcomes are understood as gross effects, of which only a part is a consequence of the program and represent the actual impacts (Then et al., 2017). Equivalently, the impact is defined as the difference between outcomes that would occur with and without the program (i.e., a net effect). Impacts for each of the stakeholders typically are determined first in natural units, but they also can be monetized. For economic evaluations, we strive to monetize as many impact chains as possible and sensible.

After each impact chain is evaluated in monetary terms, the impacts can be summed and compared to the inputs' cost. The comparison usually is expressed as the SROI value, which is a ratio of the total impact (sum of all impact chains) to the total input cost (Equation 1). For example, a SROI value of 5 means that each €1 spent in the program creates a value of €5 in social effects.

$$\text{SROI} = \frac{\sum_{i=1}^{n} \text{Impact}_i}{\sum_{j=1}^{m} \text{Cost of input}_j} \qquad (1)$$

These are the five elementary steps in the SROI analysis carried out for our case, the IY parenting program:

Step 1. Identify a broad set of potential stakeholders affected positively or negatively by the program.

Special care must be taken to ensure that as many direct and indirect effects on individuals, organizations, and institutions are identified, regardless of how directly they are involved in the program's activity. The impacts sometimes can be unintended or harmful for some stakeholders; such stakeholders must not be neglected in the analysis. The reviewed literature on early childhood interventions exposes several potential stakeholders. The expected positive impacts on the health and well-being of individuals and their immediate community are most apparent and, consequently, the child, parents, and families represent key stakeholders in this analysis. Moreover, the institutions from health-related, educational, and social sectors also are sources of potential stakeholders. Finally, society also can be considered to be a stakeholder.

Step 2. Identify key stakeholders, typically those for whom the most considerable effects are expected.

Careful consideration must be taken to avoid including too broad a range of those affected by the program, but to include those stakeholders for whom principal effects can be expected. In addition to the *child* and *parents*, we identified institutions from *pre-school* and *primary school education* (kindergartens and elementary schools) as key stakeholders. The IY program's effects on secondary and tertiary education are generated over a more extended period and are beyond the time horizon of our analysis. For the health sector, we treated *institutions* offering primary and secondary treatment of behavioral and emotional problems as crucial

Figure 1: Impact model in SROI analysis (one impact chain)
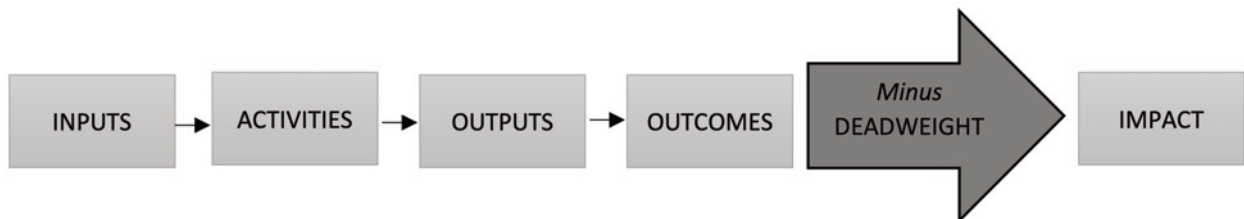
stakeholders. We also included *society* as a key stakeholder because some effects on the perceived level of safety and crime rate were expected within the study's time horizon.

Step 3. Set up the impact model by specifying (hypothetical) impact chains for each stakeholder.

The theoretical impact chains for children and parents are well substantiated by the literature (Menting et al., 2013). Hence, we expected that the inputs required by the IY program's activities will result in measurable outputs leading to the program's intended outcomes. For the immediate stakeholder group, *parents,* this means that by participating in the program's activities (attended weekly classes and special events are the outputs), they will improve their parenting skills and benefit from having a better family and professional life (outcomes and impacts). The *children* do not participate in the weekly sessions; however, they have short-term benefits in terms of fewer requirements for special assistance (hours of health services, educational services, and social workers' services are the outputs) as well as a happier and more productive life over the long term (outcomes and impacts).

Step 4. Collect empirical data to calculate the cost of inputs and the impact for each chain.

Figure 1 shows how the impact was determined by first understanding the program's outputs and outcomes. Usually, the outputs and outcomes are evaluated first in natural units, and then the impact is determined. Afterward, the non-monetary impacts of the program are given a monetary value. *Outputs* of the IY program are the services directly provided to participants (parents): class hours, advisory sessions, events, or similar directly countable results. The outcomes represent the intended and unintended consequences for the target group after the activities are carried out. Unintended consequences are the positive or negative effects that are not part of the program's mission. The *outcomes* of parenting programs usually are measured with diagnostic questionnaires filled in by participants before and after implementation.

Within the studied IY program, data were recorded only for the immediate stakeholders (children and parents) based on an initial interview with parents and with diagnostic questionnaires such as the Parenting Scale, Eyberg Child Behaviour Inventory (ECBI), the Warwick–Edinburgh Mental Wellbeing Scale (WEMBS), and the Development and Well-Being Assessment (DAWBA) diagnostic interview. Unlike certain IY programs (O'Neill et al., 2010), the children's need for health, social, and educational services before and after parents' involvement in the program was not measured [for example, using the Client Socio-Demographic and Service Receipt Inventory (Chisholm et al., 2000)]. For SROI analysis, data collected with such a questionnaire would be useful. Instead, as a proxy measure of outcomes (and hence, impacts), we used secondary data and interviews with the manager of the largest IY program provider in Slovenia, the head of the Department for Child Psychiatry of the Pediatric Clinic in Ljubljana, and the director of the IY programs in Slovenia.

Step 5. Calculate the SROI value for the program.

After evaluating the costs of inputs and monetizing impacts on the stakeholders, we calculated the SROI index as the ratio of the total value of the impacts to the value of inputs. In principle, a SROI index higher than 1 indicates a program producing social effects greater than its costs. Hence, such a program is not only socially desirable but also economically rational for society. However, we must emphasize that the SROI value does not encompass the whole "value" of the program impacts, because many of the impacts are not monetized, yet it is clear that they exist. Hence, the SROI index should serve mainly as a benchmark and starting point for discussion regarding how social value services are provided in society.

4 RESULTS

4.1 Steps 1 and 2

The initial steps of SROI require that we first identify potential stakeholders affected by the program, followed by pinpointing the key stakeholders. This program's target beneficiaries and stakeholders are (1) children and (2) their parents and extended families. We primarily assessed direct benefits for the parents,

and, similar to other studies in this field (O'Neill, McGilloway, Donnelly, Bywater, & Kelly, 2013), focused only on the key stakeholders for whom the effects of the program are the strongest and evident in the analyzed period, for which data are available. These stakeholders are (3) primary and pre-school education organizations, (4) healthcare organizations, and (5) society.

Due to non-available data, we only qualitatively describe the programs' impacts in the fields of delinquency, crime, and unemployment for the children of the participants, as well as the indirect benefits and other external effects of the program on third parties. Thus, the calculation of impacts included only a part of the program's actual positive effects, whereas costs of implementing the program were included in full. Such analysis is prudent and leads to underestimated impacts of the program per unit of cost.

4.2 Step 3

Table 1 presents the impact model, composed of seven impact chains. It shows the assumed (hypothetical) impact chains for seven identified key stakeholders: children, parents, pre-school (kindergartens), elementary schools, healthcare institutions, social service institutions, and, finally, society in its broadest sense. The program's expected *outputs* for the children are foremost better results in school, and lower incidence of conflicts with parents and other family members, friends, and teachers (educators). The expected *outcomes* are better quality of life, less likelihood for unemployment in adulthood, better health, higher education level, and less neglect and abuse. However, most of these effects can be quantified and monetized only after the children become part of the active population, which occurred beyond the time horizon of this analysis.

Table 1: Hypothetical impact model comprising seven individual impact chains

Stakeholder	Output	Outcome/impact	Monetized outcome and impact
Children	Improved results in school, lower incidence of conflicts with family, friends, and teachers	Improved quality of life (less unemployment), health, a higher level of education, less neglect or abuse	/
Parents/family	Lower incidence of conflicts with children, less parent absenteeism	Improved quality of life, health	Cost of absenteeismData: number of medical treatments, average salary
Preschool education institutions (kindergartens)	Lower incidence of conflicts, fewer hours of APA	Improved quality of learning environment	Cost of APAData: number of children eligible for APA, cost of issuing APA decisions, hours of assistance provided per week, salary cost of assistants to children
Primary education institutions (elementary schools)	Lower incidence of conflicts, fewer hours of APA	Improved quality of learning environment	Cost of APAData: number of children eligible for APA, cost of issuing APA decisions, hours of assistance provided per week, salary cost of assistants to children
Healthcare institutions	Fewer treatments required	Improved availability of service	Cost of medical treatmentsData: number of children in treatment for emotional and behavioral problems, estimated number of hours of treatment, cost of salaries of medical teams
Social work centers	Fewer services required	Improved availability of service	/
Society	Lower incidence of addiction and juvenile delinquency	Improved safety level, lower crime rates	Cost of treating addiction and juvenile delinquencyData: annual cost of Centers for the Prevention and Treatment of Illicit Drug Addiction, annual cost of social assistance programs in the field of illicit drugs, annual cost of residential juvenile delinquency treatment institutions

Note: APA = additional professional assistance

The program's expected *outputs* for the parents (participants in the program) mainly are a lower incidence of conflicts with children, and less absenteeism due to lower needs of the child for the services of the health system and the social service system. There are two primary *outcomes* for this stakeholder: a better quality of life, and better health. Due to data limitations, we focused only on the savings in the cost of absenteeism to monetize the expected impact. The expected *outputs* for preschool and primary education institutions are a lower incidence of conflicts and a lower need for additional professional assistance (APA). We did not have data on the incidence of conflicts in schools; hence, we monetized only the latter impact by estimating the savings in the cost of providing APA.

The expected *output* for the healthcare institutions and the social service institutions is a lower number of treatments in the former and less need for services provided by social work centers in the latter. The expected *outcome* in both cases is better availability of service for others. In the analysis, we quantified and monetized only the impact on the health sector institutions by evaluating the savings in the cost of treatments for children with emotional and behavioral problems. The expected impact on the social service system certainly is not negligible, but due to data unavailability, it was not quantified and monetized.

Finally, from society's perspective, the expected *outputs* from this parenting program are a lower incidence of addiction and juvenile delinquency. The expected *outcomes* are a greater level of safety and lower crime rates. We quantified and monetized these effects by evaluating the savings in the cost of treating addiction as well as savings in the cost of juvenile delinquency residential treatment.

4.3 Step 4

This section explains the monetization of impacts from Table 1 in more detail. We primarily assessed direct benefits and focused only on the stakeholders for whom the program's impacts were the strongest and most evident in the analyzed period, for which data were available. Other impacts of the program were defined in qualitative terms.

4.3.1 Measuring the Cost of Inputs

The cost of inputs included in the SROI analysis was estimated based on the 2018 IY implementation costs (€173,551). The funding was provided by the Ministry of Health of the Republic of Slovenia (95%) and by a group of consortium partners (5%) (Mala ulica, 2017).

The cost calculations are based on the projected average of 180 participants annually (Anderluh, 2017). The estimated program cost per participant (parent) and per child was calculated by assuming that one participant (parent) had one child, following Kuzma, Mirković, Svetina, and Anderluh (2017). Because most participants have more than one child, the program's benefits actually are available to more children. However, because both parents may participate, fewer children than participants possibly will benefit from the program. In the program's pilot, the total number of children impacted by the program was higher than the number of participants (343 parents and 438 children) (Kuzma et al., 2017). This indicates that our assumption (one participant equals one child) likely underestimates the number of children benefiting from the program.

Considering the projected participants' volume for 2018 leads to a cost per participant to €964.17 (€173,551/180). This is the first indicator for the assessment of the SROI value of the IY parenting program. The program will have a SROI value higher than 1 if the estimated program's social impacts exceed €964 per participant. If we apply the ratio of parents/children from the pilot implementation of the program, in which the number of children benefiting from the program exceeded the number of participants by 28%, the program's estimated annual cost per child would be €753.

4.3.2. Measuring the Value of Impacts

Regarding the IY parenting program's impacts, we first established that the program is a novelty in Slovenia, and there are no alternative programs with comparable effects. This means that the entire flow of the program's outcomes is incremental and arises due to the program's implementation. Hence, the outcomes of the program can be considered

equal to its impacts (net effects). Second, because this is a public preventive health program financed from public sources and is free of charge for participants, it does not have any direct monetary outcome in the market. Thus, the program's positive effects arise exclusively in non-monetary form as indirect effects due to the prevention of adverse effects on society.

The program's impacts were assessed within the 10 years for the projected volume of 180 participants in 2018, as specified in the program's application documents (Mala ulica, 2017). As mentioned previously, in terms of program impacts, we primarily assessed direct effects and focused on the fields in which the program's impacts were the strongest and were evident in the analyzed period, for which data were available. These fields are primary and pre-school education, healthcare, addiction, and juvenile delinquency. Other impacts of the program, such as effects on parents and families; to a limited extent delinquency and crime, higher education attainment, and the likelihood of employment; and external positive effects of the program were defined in qualitative terms.

The program indirectly leads to children being more successful in the educational field and attaining higher academic levels (Colman et al., 2009; Fergusson, Horwood and Ridder, 2005; O'Neill et al., 2010), and to reducing the probability and duration of unemployment. Because these effects rarely would occur within the analyzed 10-year period, we did not calculate their monetary value.

The impacts for the parents participating in the program were evaluated based on the savings in parent absenteeism costs (lower loss of income due to accompanying the child to medical treatments). It was assumed that these savings are generated throughout the analyzed 10-year period. These costs are incurred due to the time spent on transportation, waiting, and accompanying the child, and were estimated as 2 times specified number of hours of medical treatment per child (2 × 12.75 hours = 25.5 hours; see also the subsequent analysis for stakeholders in healthcare) times the average gross salary per hour in 2018, €11.31 (SURS, 2019). The annual cost of absenteeism per child thus amounted to €288.33, not including transportation costs. The

evaluation of the IY parenting program (Kuzma et al., 2017) shows that 14% of children from the program were included in medical treatment. Assuming the same share (14%), 25.2 of the 180 children from the program are included in medical treatment and must be accompanied by parents. The total costs of parent absenteeism are €7,266 (€288.33 × 25 children). We considered that the IY parenting program's effect will stand at 50%, which means that children from the program will need 50% fewer hours of medical treatment, and hence the savings in this field amount to €3,633 annually (€7,266/2). Therefore the monetized impact of the IY program for parents is at least €3,633 annually. The program further generates benefits for parents by reducing absenteeism and allowing them to spend leisure time attending to children or helping them with their school work. It also reduces the possibility of inappropriate actions, wrong parenting methods (Evans, Davies, Williams, & Hutchings, 2015), child neglect, or even abuse (Sethi et al., 2018). Consequently, it reduces the need for social services and social policy measures. The savings in this area were not quantified and monetized due to lack of available data.

For the stakeholders in pre-school education, it was assumed that children whose parents were included in the IY program in 2018 would require less APA. By Slovenian regulation, children have the right to 3 weekly hours of APA (individual supplementary tutoring by trained pedagogical specialists) if they have confirmed emotional and behavioral problems. APA's cost covers issuing decisions on APA (€210 per child) and implementing APA (specialists' work, €1,837 annually per child). APA savings due to lower needs emerge immediately after the implementation of the program. According to the head of the Center for Early Intervention in Child Mental Health and experience from the program provider Center for Child and Adolescent Mental Health, we assumed that the effect of parenting program stands at 40%, which means that 40% of participants' children (72 of the 180 children) would not require APA in kindergartens. Annual savings amount to €147,404, which is the program's impact on pre-school education stakeholders.

In addition to APA, in Slovenian primary education, children with severe emotional and behavioral disorders (for example, autism) have the right

to personal assistants during school hours. Similar to the case for pre-school, children of parents included in the IY parenting program in 2018 potentially need fewer hours of APA and fewer personal assistants. We assumed that these savings, on average, start in the third year after the implementation of the program, when children enter primary school. Three elements of savings were considered: the costs of issuing the decision on APA (€210 per child), the costs of implementing APA (€2,944 annually per child), and the costs of personal assistants to children with severe emotional and behavioral disorders (€9,905 annually per child). In line with observed program effects in the Celje Primary Healthcare Centre, the IY effect on APA needs was evaluated at 20%. This means that 20% of participants' children (36 of the 180 children) will not require APA, which leads to savings of €113,525. The need for personal assistants was estimated based on the share of children with an autism spectrum disorder in the population of children with special needs. Following the conservatism principle, our calculation considered that 1% (Kuzma et al., 2017) of parents in the program have children with an autism spectrum disorder (1.8 of the 180 children in the program). In reality, this percentage is higher, because the structure of the program does not reflect the population. We assumed that the need for personal assistants would decrease by 30% (0.54 children) due to the IY program. This means an annual saving of €5,349. The total savings for stakeholders in primary education attributable to the IY parenting program thus amounts to €118,874. Because we monetized only a part of the effects, the program's full impact is likely to be higher.

Impacts for the healthcare stakeholders were assessed based on the avoided costs of health services (fewer treatments needed at primary and secondary levels). We assumed that these savings are generated throughout the analyzed 10-year period due to fewer healthcare teams' services required at the primary and secondary level. We considered that the healthcare team at the primary level comprises one specialist (pediatrician) and one nurse, earning gross monthly salaries of €3,808 and €2,114, respectively (MJU, 2019). Furthermore, considering a 174-hour monthly workload and an equal division of work in the team, the primary healthcare team's labor cost per hour is €17.02. The secondary-level healthcare team comprises one specialist (pedopsychiatrist or psychiatrist) and one nurse. The same salaries were assumed as in the case of the primary healthcare team, but with different work division—90% specialist and 10% nurse—for a team labor cost per hour of €20.91. We assumed that a child with behavioral and emotional disorders needs, on average, three primary-level 15-minute appointments, a total of 0.75 hours of treatment at a primary level every year and a cost of €12.76 annually. At the secondary level, such children need, on average, 12 1-hour appointments per year, with a cost of €250.96 annually per child. Together with primary healthcare, this amounts to €263.73 annually per child. The secondary level costs also may include the costs for other specialists, such as a clinical psychologist, special education teacher, and speech and language therapist. However, these costs were not included in the calculation.

The evaluation study of the IY parenting program (Kuzma et al., 2017) showed that 14% of children of the program's participants are included in medical treatment. We assumed the same share for the program in 2018 (25.2 of the 180 children). Assuming the aforementioned costs, medical treatment for these 25 children amounts to €6,646 annually. We considered that the IY parenting program's effect will be 50%, which means that the children from the program will need one-half fewer hours of treatment by healthcare teams at the primary and secondary levels. Hence, the monetized impact of the program for stakeholders in healthcare is at least €3,323 annually. Compared with education, the estimated savings in healthcare are low, because the Slovenian pediatric mental health system capacities currently are very limited. At least one-third of the children of parents included in the IY parenting program meet the criteria for a clinical behavioral disorder (Kuzma et al., 2017), but only 14% of these children are included in medical treatment. If all children who meet the criteria for a clinical behavioral disorder were included in medical treatment (60 of the 180 children), the IY parenting program's positive effect in this field would be substantially higher, amounting to approximately €7,900 annually.

For society as the stakeholder, the program's *outcome* is a greater safety level and a lower crime rate. We estimated these *impacts* by monetizing the anticipated savings due to fewer cases of addiction and juvenile delinquency requiring institutional treatment, due to implementing the IY parenting program. The savings due to reducing addiction include only addiction to illicit drugs and are based on publicly available data on expenditures in 2015 (NIJZ, 2016), which amounted to €7,762,541 for 3,719 users, resulting in a cost of treatment of €2,087 per person. We assumed that due to the IY program, 1% of children of the 180 participants in 2018 (1.8 children) will not require treatment due to illicit drug addiction and that these savings occur only in the last year of the analyzed 10-year period, leading to a monetized impact of €4,052. These savings relate to illicit drugs addiction only, but no other effects, such as reducing alcohol addiction and non-chemical addiction, which can be substantial.

The literature review showed that parenting programs reduce juvenile delinquency. In this area, we assessed only the savings from the reduced costs of care in residential treatment institutions, which amount to €31,800 annually (MIZŠ, 2018). Assuming that one child (of the 180 participants) will not have to be placed in a residential treatment institution due to the parents' participation in the IY parenting program, annual savings amount to €31,800. The effect of reducing juvenile delinquency was considered only in the last year of the analyzed period; however, actual savings can occur for several years beyond the analyzed time horizon. Our analysis did not consider the program's effects on postponing referral to residential treatment institutions to a later year or the effects of shortening the average time spent in a residential treatment institution. The program's long-term impacts lead to lower crime and delinquency rates in adulthood. Impacts of the program thus include savings in court fees and costs of prison sentences. These costs are estimated to be exceptionally high (O'Neill et al., 2010). In Slovenia, the daily cost per prisoner in 2017 was €79.51 (Kosmač 2018), which is slightly more than €29,000 per prisoner per year. Therefore, we justifiably can assume that the savings calculated (€31,800) are underestimated and represent the lower limit for the actual monetary value of the program's impact in this area.

Further IY effects arise not only for the analyzed stakeholders but for the society as well. These effects were not included in the calculation of SROI. First, parenting programs also lead to indirect impacts on the society, such as a greater probability of an individual's economic independence, less need for social policy measures, and larger net contribution to the financing of public services (O'Neill et al., 2010). Second, the program's long-term effects include a higher level of attained education, better physical and mental health of children when they reach adulthood, a greater probability of employment, or shorter unemployment duration. Third, the improved welfare of children and families leads to healthier and more-responsible members of society, and, consequently, to improved welfare in society. Finally, less juvenile delinquency, addiction, and crime lead to greater safety levels in society.

Table 2 presents the monetized impacts for the identified stakeholders' groups, as well as the total value of impacts in the analyzed 10-year period. The actual value of impacts is likely to be even higher because we monetized only a part of the identified effects.

Table 2: Monetized impacts per stakeholder

Impacts over 10-year period per stakeholder (€)							Total impact
Child	Parents	Kindergartens	Elementary schools	Health system	Social service	Society	
*	36,329.31	279,687	786,757	33,229.36	*	35,852	1,171,854.72

* 10-year impacts for these stakeholders are described qualitatively and were not monetized.

4.4 Step 5

Figure 2 shows the impact chain and the results of the SROI calculation. The SROI value for the 2018 IY program is 10.13. This means that every €1 invested in the parenting program in 2018 generates positive effects for various stakeholders in the total amount of €10.13 within the following 10 years.

The program creates immediate effects by reducing the need for medical treatment or health services for these children, generated throughout the observed period. Immediately after implementing the program, the program's impact in pre-school education also is evident. When the children of these parents start primary school, the impact is transferred to that level. In the last year, the program creates savings in the fields of addiction and juvenile delinquency. Because only parts of the impacts were monetized, and they were analyzed for 10 years only, the actual SROI likely is higher. The summation of impacts across the identified impact chains for each of the stakeholders amounts to €1,171,855. The program's average annual impact is €117,185 and the average impact per participant in the 10-year period amounts to €6,510. As explained previously, our calculations did not include effects of the IY that occur after the observed 10-year period (for example, impacts in the field of un-

employment), or benefits that have been analyzed only qualitatively (for example, program benefits for participants' children). The estimated impact in the 10-year period (€1,171,855) is generated as the consequence of a single (1-year) implementation of the program in 2018 and thus needs to be compared to the costs of IY implementation in 2018, that is, €173,551. Each repetition of the program at the same scale generates impacts as calculated.

4.5 Robustness Check

Our calculation of SROI is based on several assumptions about the outcome parameters. To verify the results' robustness to the chosen assumptions, we used the sensitivity analysis presented in Figure 3. The baseline assumption on the value of costs was varied by as much as 50% up and down, and the corresponding SROI was calculated. Similarly, the program's impacts on stakeholders were examined to determine how SROI changes if the program's effect on each stakeholder group is increased or decreased by as much as 50%. Regardless of the direction of the change and the type of impact, all recalculated SROIs were greater than 1, which confirms the robustness of the conclusion that the IY program is socially valuable and economically sound.

Figure 2: Impact chain and results of the SROI analysis
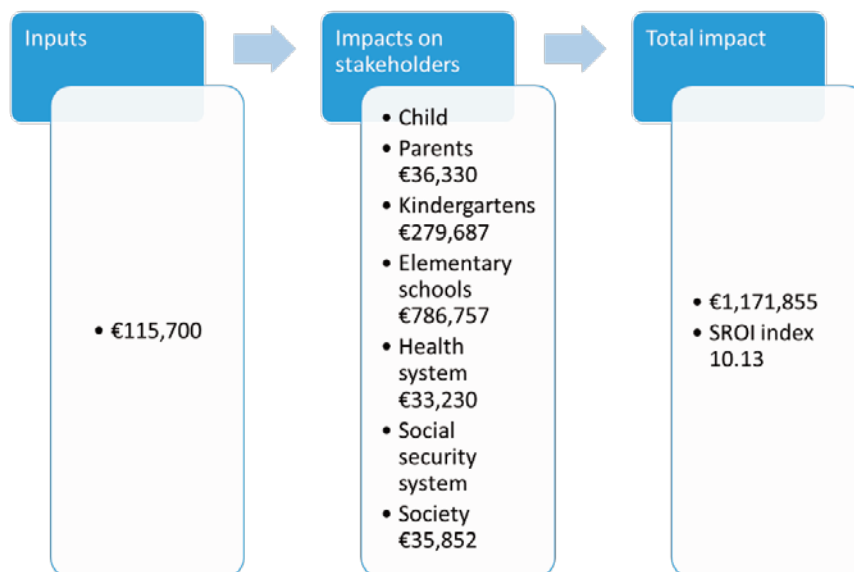
As shown in Figure 3, the SROI index is most sensitive to the assumption regarding inputs' value. Compared with the monetization of impacts, this value is relatively more accurate and reliable. Among impacts, the assumptions regarding the effects on elementary schools and kindergartens are more critical than others for the value of SROI. Nevertheless, even if individual effects are only half as large as assumed in our analysis (with other effects unchanged), the SROI value still is above 5.

Finally, we calculated the critical value of an individual effect (with the others remaining unchanged) for which SROI would equal 1. The annual program costs would have to increase by more than 900% (for the volume of 180 participants) to bring the SROI index value to 1.

The calculated critical values of assumptions regarding the impact on each stakeholder are negative. This means that the program has a SROI greater than 1 even if one of the stakeholder impacts does not arise, because the effects on other stakeholders are higher than the program costs. The negative critical values of assumptions also mean that the IY par-

enting program would have a SROI less than 1 only if it generated damage, i.e., had adverse effects on the analyzed stakeholders, which, as we established, certainly is not the case.

We further compared each particular stakeholder's impact and the entire costs of the IY program, and calculated the critical standalone impact size for each stakeholder. In pre-school education, a 40% effect was assumed, whereas to achieve a SROI index higher than 1, at least a 31% effect is sufficient (with the effect on other stakeholders equal to zero). In the field of primary education, a 19% effect would be sufficient. In other fields, the critical level of the effect, in the absence of all other effects, is higher than the value assumed in the analysis, because their impact is relatively small.

5   DISCUSSION AND CONCLUSION

Increasing requirements for disclosure of environmental, social, and governance information and policies are prompting companies and nonprofit organizations to consider the extent to which they are

Figure 3: Robustness of the SROI index to changes in the basic scenario assumptions about program costs and effects on stakeholders
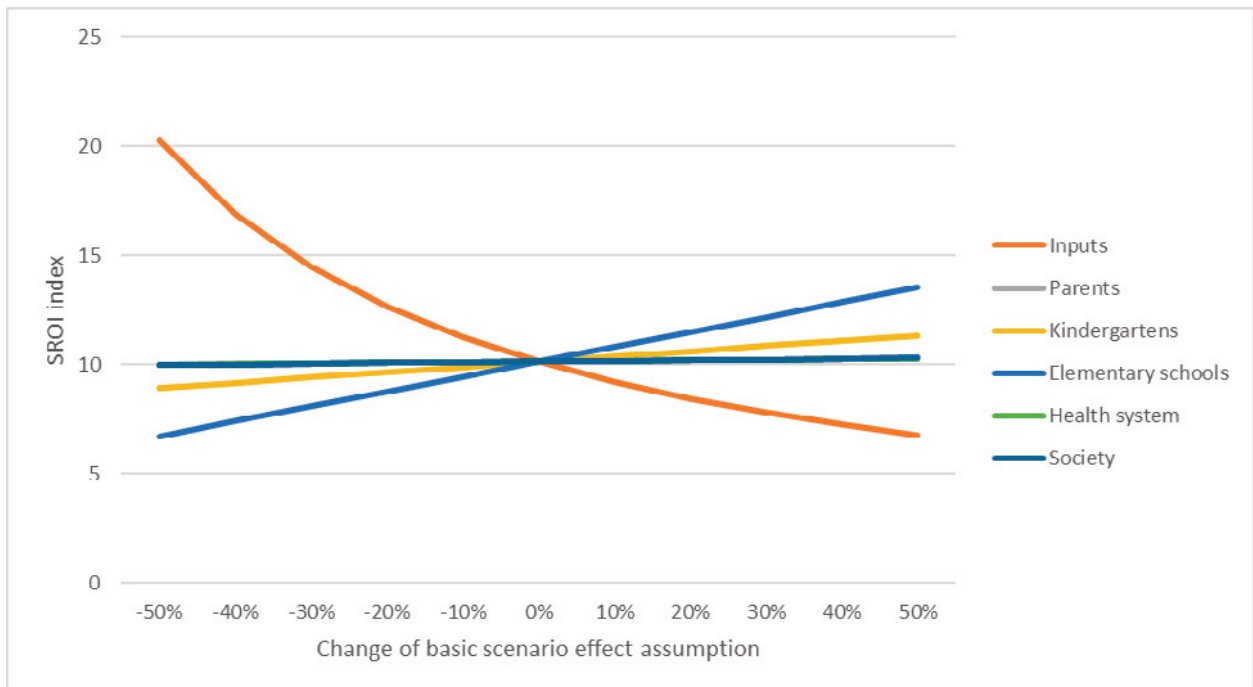
prepared to meet these expectations. Over the last decade, the identification, measuring, and reporting of environmental impacts has become relatively familiar, and is outlined by several frameworks. In contrast, guidelines for social and governance pillars, including a methodological framework for measurement, largely are yet to be developed. This paper illustrates how social impacts can be identified, measured, and even monetized using the SROI approach. Unlike other economic evaluation methods, such as the CBA, the SROI approach focuses on a wider set of affected stakeholders. Another distinguishing characteristic is that only the difference between the effects that would have occurred without and with a preventive program is considered to be an impact. We consider both characteristics to be a distinctive advantage of the SROI method as a methodological ground for identifying and measuring social impacts. In the previous literature, the difficulty of assigning a financial value to "soft outcomes" has been identified as a major problem (e.g., Banke-Thomas et al., 2015).

In our paper, we highlighted the importance of identifying the relevant stakeholders [and not necessarily all of them (e.g., Antonaras et al., 2011; Banke-Thomas et al., 2015)] and demonstrated how to address the critical decisions regarding the selection and collection of data. Trade-offs between having more or having the relevant data are to be expected, and a sensible compromise must be reached to finalize the analysis. Similar to previous SROI studies, we focused only on the impacts on those stakeholders for whom the program's effects are most substantial (Antonaras et al., 2011) and for which data were available: children, parents, preschool and primary education institutions, healthcare institutions, and society. The program also has impacts in other areas, which we assessed only qualitatively and not monetarily; for example, effects on parents and families, delinquency and crime, unemployment, and chronic physical and mental illness in adulthood.

Recent SROI guidance does not recommend comparing SROI metrics across different activities, whereas the CBA is designed to be comparable in such a way. The emphasis on stakeholder involvement leads to diverse sets of indicators, and therefore to difficulties in comparing like with like. This is the limitation of the SROI method, which Maier et al. (2015) referred to as commensuration, in which different entities are compared according to a common metric. Comparability between social investments is limited. However, in Maier et al.'s opinion, comparability could be increased if calculation procedures such as discount rates, deadweights, and proxies were standardized further, and the same scale or environment could be ensured.

Another critical part of the analysis is the choice of the period analyzed, as noted by Banke-Thomas et al. (2015). In this study, we used a 10-year period after the implementation because the most relevant effects were expected to occur within this time frame. However, a longer or shorter analytic horizon might lead to different conclusions. Therefore, as a contribution of our study, we highlight two principles that should be followed when selecting the time frame for the analysis: (1) choose the period conservatively, i.e., estimate the minimum time frame in which most, but not all, effects can be expected to occur; and (2) conduct a sensitivity analysis, i.e., use calculations to determine the critical assumptions that considerably affect the conclusions if the time frame is changed to be shorter or longer than the baseline.

Related to the preceding points is the decision about how thoroughly the negative vs. positive effects (or costs and benefits) should be included. Namely, implementing measures such as SROI is relatively feasible when information about program outcomes, cost, and revenue already is being collected by an organization (Cordes, 2017). In many situations, the information about the costs of activities is more familiar, available, and predictable than information about expected benefits. Thus, it is advisable that costs (or negative effects) are included fully in the analysis and caution is exerted in terms of expected positive effects. Such a conservative approach leads to an underestimated SROI value and safeguards against enthusiastic or overrated expectations of positive social returns. Of course, such a conservative stance may prevent some socially desirable activities from being implemented; therefore, a balance between both views is needed. The decision about how thoroughly the effects should be included is illustrated in our example, in which the

calculated total impact value comprised only a part of the program's actual positive effects, whereas program implementation costs were included in full.

Finally, the process and results of the SROI analysis can be exploited beyond the mere (one-time) demonstration or reporting of the organizational aggregate social impact to (potential) investors, funders, or other stakeholders (Flockhart, 2005). When the impact model is well understood, good groundwork has been set up for socially responsible management (Then et al., 2017). Through this analysis, organizations can identify, for example, which activities and issues could be problematic from the ESG perspective, or, conversely, where new opportunities might open up. The information gathered and processed in the SROI analysis also can feed into the organizational strategy development process and eventually also be incorporated into strategy implementation or performance management tools. SROI reduces complexity by condensing the difficult task of communicating value to one figure. This figure can be used as a tool to shape public opinion about distributive justice or to legitimize NPOs by communicating their impact to audiences who are less receptive to qualitative evidence (Maier et al., 2015).

Our experience shows that the scope of available data limits the quality of social impact analyses. This implies that organizations may need to increase the availability and range of available data to measure the outputs, outcomes, and impacts of programs (Meng & Shi, 2017). Therefore, future research in this area could focus on improving the availability of external data, such as shared databases of proxy data. However, because there is a significant deficit of existing examples of social impact analysis (benchmarks), many organizations often will discover the type and scope of data they need only ex post—after their first attempt to conduct such an analysis. Therefore, further research in this area could provide valuable examples of the type and range of data needed for SROI analysis in specific contexts. Furthermore, as is evident from our case, a longitudinal approach to data collection may be required to measure accurately the long-term effects and monitor the evolution of social impacts over time for different stakeholders.

Despite the aforementioned limitations, we believe that our study makes an important contribution to the literature in this area and provides a practical reference example for practitioners and researchers. The activities of many different organizations can be analyzed in a similar way whenever they are characterized by a broad range of indirect individual and social effects in addition to the intended direct effects for the target population. In particular, our account of measuring effects by estimating avoided costs can be generalized to other organizations and sectors whose activities aim to prevent adverse outcomes in society, such as education, sport and recreation, and social work.

EXTENDED SUMMARY/IZVLEČEK

Vse večje zahteve glede obvladovanja okoljskih in družbenih dejavnikov ter dejavnikov korporacijskega upravljanja (ang. Environmental, Social and Governance; ESG) spodbujajo podjetja in neprofitne organizacije k razmisleku glede njihove pripravljenosti na izpolnjevanje takšnih pričakovanj. Spodbude za merjenje in poročanje o družbenem vplivu podjetij prihajajo tako s trga, od kupcev kot konkurentov, kot tudi s strani regulatorjev. Namen tega prispevka je pomagati organizacijam, ki se soočajo z izzivom merjenja družbenega učinka svojih dejavnosti. V članku na primeru ponazorimo, kako je mogoče s pristopom SROI identificirati, izmeriti in denarju izraziti družbene učinke. Metoda SROI se osredotoča na obsežen nabor deležnikov, kot učinek pa šteje samo razlika med učinki, ki bi se pojavili brez analizirane aktivnosti in z njo. Za študijo primera uporabljamo program starševstva, katerega cilj je izboljšati starševske spretnosti in s tem zmanjšati čustvene in vedenjske težave otrok. Program vodi neprofitna organizacija, vendar je mogoče na podoben način analizirati tudi dejavnosti znotraj profitnega sektorja, kadar je zanje poleg predvidenih neposrednih učinkov značilen širok spekter posrednih individualnih in družbenih učinkov. V študiji smo ovrednotili družbene učinke v desetletnem obdobju po izvedbi programa, saj so bili v tem časovnem okviru pričakovani najpomembnejši učinki. V članku poudarjamo vlogo izbire dolžine obdobja merjenja učinkov ter natančnosti vključevanja stroškov izvedbe analizirane aktivnosti in njenih učinkov. Pri tem izpostavljamo pomen razpoložljivosti in obsega učinkov, ki jih zajamemo s podatki. Poudarjamo tudi, da so rezultati analize SROI uporabni ne le za poročanje o družbenem učinku organizacije vlagateljem in drugim deležnikom, temveč tudi kot dobro podlaga za družbeno odgovorno upravljanje preko vključevanja ugotovitev analize SROI v proces razvoja organizacijske strategije ter sčasoma tudi v orodja za obvladovanje uspešnosti.

REFERENCES

Adler, M. D. (2006). QALY's and Policy Evaluation: A New Perspective. *Yale Journal of Health Policy, Law and Ethics, 6*(1), 1–92.

Anderluh, M. (2017). Načrt delovanja Centra za dokazano učinkovite programe zgodnjih intervenc na področju duševnega zdravja otrok. Univerzitetni klinični center, Pediatrična klinika. (in English: Action plan of the Center for Proven Effective Early Childhood Mental Health Intervention Programs. University Medical Center, Pediatric Clinic)

Antonaras, A., Iacovidou, M., & Memtsa, C. (2011). Measuring social return on investment using the EBEN GR business ethics excellence model. *Verslo ir teisés aktualijos/Current Issues of Business and Law*, *6*(1), 69–89.

Arvidson, M., Lyon, F., McKay, S., & Moro, D. (2013). Valuing the social? The nature and controversies of measuring social return on investment (SROI). *Voluntary Sector Review, 4*(1), 3-18.

Banke-Thomas, A. O., Madaj, B., Charles, A., & van den Broek, N. (2015). Social Return on Investment (SROI) methodology to account for value for money of public health interventions: a systematic review. *BMC public health, 15*(1), 1-14.

Burdge, R. J. (2003). The Practice of Social Impact Assessment-Background. *Impact Assessment and Project Appraisal, 21*(2), 84–88.

Chisholm, D., Knapp, M. R. J., Knudsen, H. C., Amaddeo, F., Gaite, L., Van Wijngaarden, B., & EPSILON Study Group. (2000). Client socio-demographic and service receipt inventory–European version: development of an instrument for international research: EPSILON Study 5. *The British Journal of Psychiatry*, *177*(S39), s28-s33.

Cleary, A., Fitzgerald, M., & Nixon, E. (2004). *From child to adult: a longitudinal study of Irish children and their families*. University College Dublin (UCD).

Colman, I., Murray, J., Abbott, R. A., Maughan, B., Kuh, D., Croudace, T. J., & Jones, P. B. (2009). Outcomes of conduct problems in adolescence: 40 year follow-up of national cohort. *British medical journal, 338*, a2981.

Copeland, W. E., Shanahan, L., Costello, E. J., & Angold, A. (2009). Childhood and adolescent psychiatric disorders as predictors of young adult disorders. *Archives of general psychiatry*, *66*(7), 764-772.

Cordes, J. J. (2017). Using cost-benefit analysis and social return on investment to evaluate the impact of social enterprise: Promises, implementation, and limitations. *Evaluation and program planning, 64*, 98-104.

Edwards, R. T., & Lawrence, C. L. (2021). 'What You See is All There is': the importance of heuristics in cost-benefit analysis (CBA) and social return on investment (SROI) in the evaluation of public health interventions. *Applied Health Economics and Health Policy, 19*(5), 653-664.

European Commission (2022a). International Platform on Sustainable Finance. Retrieved 2022 May 18 from https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en

European Commission. (2014). *Non-Financial Reporting Directive 2014/95/EU*. Retrieved 2022, May 5 from https://eur-lex.europa.eu/legal-content/EN/TXT/-PDF/?uri=CELEX:32014L0095&from=EN_

European Commission (2020b). Sustainable finance – environmental, social and governance criteria (benchmarks). Retrieved 2022, May 5 from https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/-12019-Sustainable-finance-environmental-social-and-governance-criteria-benchmarks-_en

European Commission (2020c). Final report on EU taxonomy. Retrieved 2022 May 5 from https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/200309-sustainable-finance-teg-final-report-taxonomy_en.pdf

European Commission. (2022d). *Proposal for a Directive on corporate sustainability due diligence and annex*. Retrieved 2022, May 5 from https://ec.europa.eu/info/publications/210421-sustainable-finance-communication_en#csrd.

Evans, S., Davies, S., Williams, M., & Hutchings, J. (2015). Short-term benefits from the incredible years parents and babies programme in Powys. *Community Practitioner*, *88*(9), 46-49.

Fergusson, D. M., John Horwood, L., & Ridder, E. M. (2005). Show me the child at seven: the consequences of conduct problems in childhood for psychosocial functioning in adulthood. *Journal of child psychology and psychiatry*, *46*(8), 837-849.

Flockhart, A. (2005). Raising the profile of social enterprises: the use of social return on investment (SROI) and investment ready tools (IRT) to bridge the financial credibility gap. *Social Enterprise Journal, 1*(1), 29 - 42.

Freudenburg, W. R. (1986). Social Impact Assessment. *Annual Review of Sociology, 12*, 451–78;

Gair, C. (2002). A Report from the Good Ship SROI. http://www.redf.org/pub_nse.htm.

Gardner, F. E. (1987). Positive interaction between mothers and conduct-problem children: Is there training for harmony as well as fighting?. Journal of Abnormal Child Psychology, 15(2), 283-293.

Global Impact Investing Ratings System (GIIRS). (2018). The Rockefeller Foundation. http://giirs.org/.

Gosselin, V., Boccanfuso, D., & Laberge, S. (2020). Social return on investment (SROI) method to evaluate physical activity and sport interventions: a systematic review. *International Journal of Behavioral Nutrition and Physical Activity, 17*(1), 1-11.

Hammitt, J. K., & Haninger, K. (2011). *Valuing Morbidity Risk: Willingness to Pay per Quality-Adjusted Life Year*. Working paper for the 38th Seminar of the European Group of Risk and Insurance Economists, September 19–21, Vienna, Austria.

Hutchings, J., Bywater, T., Daley, D., Gardner, F., Whitaker, C., Jones, K., … Edwards, R.T. (2007). Parenting intervention in Sure Start services for children at risk of developing conduct disorder: pragmatic randomised controlled trial. *BMJ*, *334*(7595), 678-82.

Impact Reporting and Investment Standards (IRIS). (2009). IRIS Project Overview. http://iris.thegiin.org/.

International Committee on Principles and Guidelines for Social Impact Assessment (ICPGSIA). (2003). The Interorganizational Committee on Principles and Guidelines for Social Impact Assessment: Principles and Guidelines for Social Impact Assessment in the USA. *Impact Assessment and Project Appraisal, 21*(3), 231–50.

Kosmač, G. (2018). *Zapornik je leta 2017 davkoplačevalce stal slabih 80 evrov dnevno (In English: In 2017, a prisoner costed taxpayers just under € 80 a day)*. April 17th, 2018. Retrieved 2019, August 1 from https://www.rtvslo.si/slovenija/zapornik-je-leta-2017-davkoplacevalce-stal-slabih-80-evrov-dnevno/452225.

Kuzma, M., Mirković, A., Svetina M., & Anderluh, M. (2017). Evalvacija učinkovitosti programa NL. Norwvay Grants, Služba vlade RS za razvoj in evropsko kohezijsko politiko, Univerzitetni klinični center (in English: Evaluation of the IY program's effectiveness. Norwvay Grants, Government Office for Development and European Cohesion Policy, University Medical Center).

Layard, R. and Glaister, S. (1994) *Cost–benefit analysis*. Cambridge: Cambridge University Press.

Maier, F., Schober, C., Simsa, R., & Millner, R. (2015). SROI as a method for evaluation research: Understanding merits and limitations. *Voluntas: International Journal of Voluntary and Nonprofit Organizations, 26*(5), 1805-1830.

Mala ulica (2017). Prijava na javni razpis za sofinanciranje programov varovanja in krepitve zdravja za leta 2017, 2018 in 2019 (in English: Application for the public tender for co-financing of health protection and promotion programs for 2017, 2018 and 2019).

Meng, X.-L., & Shi, F.-G. (2017). A generalized fuzzy data envelopment analysis with restricted fuzzy sets and determined constraint condition 1. *Journal of Intelligent & Fuzzy Systems*, *33*(3), 1895–1905.

Menting, A. T., de Castro, B. O., & Matthys, W. (2013). Effectiveness of the Incredible Years parent training to modify disruptive and prosocial child behavior: A meta-analytic review. *Clinical Psychology Review*, *33*(8), 901-913.

Millar, R., & Hall, K. (2013). Social return on investment (SROI) and performance measurement: The opportunities and barriers for social enterprises in health and social care. *Public Management Review, 15*(6), 923-941.

MIZŠ – Ministrstvo za izobraževanje in šport (in English: Ministry of Education and Sports). (2018). Okrožnica MIZŠ 6034-113/2017/1.

MJU – Ministrstvo za javno upravo (in English: Ministry of Public Administration). (2019). Plačna lestvica in vrednost nominalnih osnov (in English: Salary scale and value of nominal bases). Retrieved 2019, 15 May from http://www.mju.gov.si/si/delovna_podrocja/place_v_javnem_sektorju/veljavna_placna_lestvica/

Mook, L., ed. (2013). *Accounting for Social Value.* Toronto: University of Toronto Press.

Nicholls, J. 2007. *Why Measuring and Communicating Social Value can help Social Enterprise become More Competitive.* London: Cabinet Office.

NIJZ – Nacionalni inštitut za javno zdravje (in English: National Institute of Public Health). (2016). Stanje na področju prepovedanih drog v Sloveniji 2016 (In English: Situation in the field of illicit drugs in Slovenia 2016). Retrieved 2019, 20 May from https://www.nijz.si/sl/publikacije/stanje-na-podrocju-prepovedanih-drog-v-sloveniji-2016

O'Faircheallaigh, C. (2009). Effectiveness in Social Impact Assessment: Aboriginal Peoples and Resource Development in Australia. *Impact Assessment and Project Appraisal, 27*(2), 95–110.

O'Neill, D., McGilloway, S., Donnelly, M., Bywater, T., & Kelly, P. (2010). A Cost-Benefit Analysis of Early Childhood Intervention: Evidence from an Experimental Evaluation of the Incredible Years Parenting Program. Economics, Finance and Accounting Department Working Paper Series. Department of Economics, Finance and Accounting, National University of Ireland - Maynooth

O'Neill, D., McGilloway, S., Donnelly, M., Bywater, T., & Kelly, P. (2013). A cost-effectiveness analysis of the Incredible Years parenting programme in reducing childhood health inequalities. *The European Journal of Health Economics*, *14*(1), 85-94.

Pardini, D., & Frick, P. J. (2013). Multiple developmental pathways to conduct disorder: Current conceptualizations and clinical implications. *Journal of the Canadian Academy of Child and Adolescent Psychiatry*, *22*(1), 20.

Richmond, B. J., L. Mook, and J. Quarter. (2003). Social Accounting for Nonprofits: Two Models. *Nonprofit Management & Leadership, 13*(4), 308–24.

Scott, S., Knapp, M., Henderson, J., & Maughan, B. (2001). Financial cost of social exclusion: follow up study of antisocial children into adulthood. *Bmj*, *323*(7306), 191.

Sethi, D., Yon, Y., Parekh, N., Anderson, T., Huber, J., Rakovac, I., & Meinck, F. (2018). *European status report on preventing child maltreatment.* Copenhagen, DK: WHO Regional Office for Europe.

SURS - Statistični urad RS (in English: Republic of Slovenia Statistical Office). (2019). *Povprečna bruto plača za december 2018 za 1,7 % nižja od plače za november 2018* (in English: The average gross salary for December 2018 is 1.7% lower than the salary for November 2018). Retrieved 2019, 20 June from https://www.stat.si/StatWebPDF/PrikaziPDF.aspx?id=7932&lang=sl

Thapar, A., Pine, D. S., Scott, S., Snowling, M. J., & Taylor, E. A. (Eds.). (2017). *Rutter's child and adolescent psychiatry*. Chichester, UK: John Wiley & Sons.

Then, V, Schober, C, Rauscher, O, & Kehl, K. (2017). *Social Return on Investment Analysis*. Palgrave Studies in Impact Finance. Cham, UK: Palgrave Macmillan.

United Nations (2015). *Transforming our world: the 2030 Agenda for Sustainable Development*. Retrieved 2019, 10 May from https://sdgs.un.org/2030agenda