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## **ERiK methodological report III. Conceptualisation and design of the ERiK-surveys 2022**

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# Methodological Report III

Conceptualisation and Design of the ERiK-Surveys 2022

Forschungsverbund



Deutsches Jugendinstitut  
Technische Universität Dortmund



Deutsches  
Jugendinstitut



# **ERiK-Methodological Report III**

Conceptualisation and Design  
of the ERiK-Surveys 2022





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Conceptualisation and Design of the ERIK-Surveys 2022

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Technische Universität Dortmund



Deutsches  
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## Researching children, youth, and families at the intersection of science, policy, and professional practice

The German Youth Institute (DJI) is one of the largest social science research institutes in Europe with an experience of 60 years. The DJI conducts empirical studies into the life situations of children, young people and families, and provides policy advice to the German national government, the German federal states and local authorities as well as key impulses for professional practice.

Founded in 1963, the governing body of the institute is a non-profit association with members from the fields of politics and science as well as from child, youth and family welfare institutions and organisations. The DJI receives the majority of its funding from the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, and the German federal states. The Federal Ministry of Education and Research, the European Commission as well as foundations and other science funding institutions provide additional funding.

Currently, about 500 staff members work and conduct research at the two locations in Munich and Halle (Saale).

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# 1. Preface

The ERiK Methodological Report III is the third methodological report in the project ‘An indicator-based monitoring of structural quality in the German early childhood education and care system’ (ERiK).

The ERiK Methodological Report III was written by 15 staff members of the ERiK project. Although the changes in the sampling and survey designs between the two ERiK-Surveys were mainly designed and implemented by the authors, the entire ERiK team of the German Youth Institute (DJI) contributed to the changes by providing valuable feedback. Special thanks go to the members of the ERiK steering group, Prof. Dr. Bernhard Kalicki, Prof. Dr. Nicole Klinkhammer and Dr. Christiane Meiner-Teubner as well as the members of our cooperation project ‘Child day-care – indicator-based continuous monitoring with official data’ (K-iDA) at the TU Dortmund University.

The project also benefited from the manifold exchanges with colleagues from department 513 of the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, from the federal states ministries as well as the ERiK expert panel.

Furthermore, we would like to thank Prof. Dr. Ulrich Pötter, Prof. Dr. Christian Aßmann, Dr. Matthias Sand, Prof. Dr. Helmut Küchenhoff, Prof. Dr. Hans-Günther Roßbach and Dr. Heike Wirth for their survey methodological feedback on the sample and survey designs of the ERiK-Surveys 2022.

Our thanks also go to the many colleagues at the DJI who helped prepare and conduct the ERiK-Surveys 2022 and will ultimately make the data available to the public. With regard to the data transfer, special mention should be made of Holger Quellenberg, who will make all data sets in the DJI Research Data Centre available to the public in 2023. Regarding the DJI Childcare Study (KiBS), many thanks to Dr. Johannes Wieschke,

who provided us with more in-depth insights into the implementation and weighting of the study. With regard to the implementation of the ERiK-Surveys 2022, we would like to thank the two survey institutes that not only conducted the surveys but also enriched the entire process with their expertise, namely the infas Institute for Applied Social Sciences and the SOKO Institute for Social Research & Communication.

We would like to thank Dr. Ludovica Gambaro for her review and critical appraisal of the ERiK Methodological Report III. Her excellent feedback once again helped to make all the survey methodological details in this report more comprehensible.

In addition to the professional guidance, the report has benefited from the practical support of many people. Our special thanks go to Nina Kuljian, Theresa Kunz and Judith Kaiser for the important organisational support. We would also like to thank Phoebe Bostan-Engel, Gitta Metzger, Eugenia Zimmermann as well as the student assistants in the ERiK team. Finally, we would like to thank wbv Publikation for publishing the report and for the effort involved.

Munich, December 2022

Diana D. Schacht – *Deputy Head of the ERiK project and Head of Survey Methodology and Data Management in the ERiK project, DJI*

Jakob J. Gilg – *Research Associate for Survey Methodology in the ERiK project, DJI*

Benjamin Gedon – *Research Associate for Data Management in the ERiK project, DJI*

As well as the following (former) members of the Department of Children and Childcare and the Department of Social Monitoring and Methodology at the DJI: Martin Brusis, Janette Buchmann, Doris Drexler, Tony Hoang, Alexandra Jähnert, Susanne Kuger, Magdalena Molina Ramirez, Michael Müller, Melina Preuß, Susanne Rahmann, Lisa Ulrich, Felix Wenger.



## 2. Introduction

On 1 January 2019, the Act on the Further Development of Quality and the Improvement of Participation in Day-Care Facilities and in Child Day-Care (in German: KiTa-Qualitäts- und -Teilhabeverbesserungsgesetz, KiQuTG) came into effect. The aim of monitoring the KiQuTG is to observe the development of the framework conditions in the system of Early Childhood Education and Care (ECEC) based on selected informative indicators. These indicators were developed in accordance with the framework of the ERiK Research Report I (in German: ERiK-Forschungsbericht I; Klinkhammer et al. 2021) with reference to the ten qualitative fields of action of the Act as well as the measures to reduce parents fees (§ 2 section 2 KiQuTG).

The project ‘An indicator-based monitoring of structural quality in the German early childhood education and care system’ (in German: Entwicklung von Rahmenbedingungen in der Kindertagesbetreuung – indikatorengestützte Qualitätsbeobachtung, ERiK) funded by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (in German: Bundesministerium für Familie, Senioren, Frauen und Jugend, BMFSFJ) analyses the annual data of the official child and youth welfare statistics (KJH statistics; in German: Kinder- und Jugendhilfestatistik; Federal Statistical Office 2020) as well as the annual data of the ‘DJI Childcare Study’ (in German: DJI-Kinderbetreuungsstudie, KiBS; Lippert/Anton/Kuger 2023).

In addition, cross-sectional surveys are conducted as part of the ERiK project.

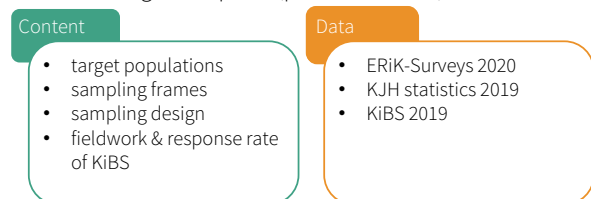
- › In 2020, the first nationwide ERiK-Surveys (the ERiK-Surveys 2020)<sup>1</sup> were conducted of day-care centre directors and pedagogical staff, of family day-care workers and youth welfare offices and of providers of day-care centres in Germany.

- › In 2022, the corresponding nationwide surveys, the ERiK-Surveys 2022, will be conducted among day-care centre directors and pedagogical staff, family day-care workers and youth welfare offices, and providers of day-care centres in Germany. In addition, the ERiK project will conduct nationwide surveys of children aged 4 to 6 attending day-care centres in 2022.

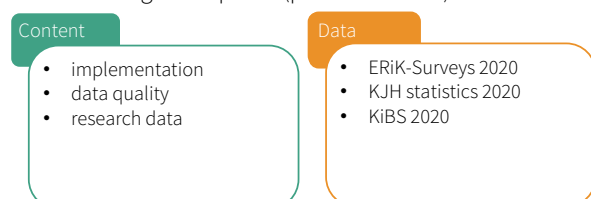
The ERiK-Surveys 2020 and 2022 are thus two repeated cross-sectional studies for five ECEC populations.

Figure 2.0-1: **Overview of the Contents of the ERiK Methodological Reports I, II and III**

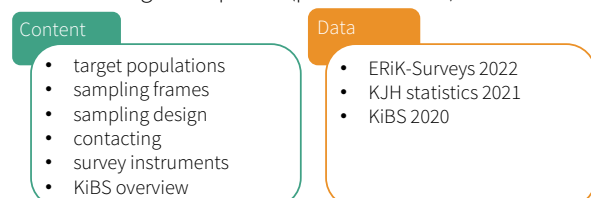
ERiK Methodological Report I (published 2021)



ERiK Methodological Report II (published 2022)



ERiK Methodological Report III (published 2023)



The ERiK Methodological Report III refers to the design and preparatory work prior to the field-work period of the ERiK-Surveys 2022. In this respect, all information in this report refers to the planning status up until 31 December 2021 so that all changes that have occurred in practice after

<sup>1</sup> We prefer to use the phrase ‘ERiK-Surveys 2020’ for the surveys conducted in 2020, while we speak of the ‘ERiK-Surveys’ when referring to both the ERiK-Surveys 2020 and the ERiK-Surveys 2022. This should also be distinguished from the data publications of the ERiK-Surveys, which have their own data citations (e.g. Gedon et al. 2021).

this date will be part of the Methodological Report IV, to be prepared in 2023. The present report focuses in particular on the changes in the sampling and surveys designs of the ERIK-Surveys 2022 compared to the ERIK-Surveys 2020.

All original considerations on the sampling design of the ERIK-Surveys 2020 are described in the ERIK Methodological Report I (Schacht et al. 2021). This includes information on the target population, the sampling frames, the sampling design and a brief overview of the fieldwork and response rate for KiBS 2019. The implementation and numerous experiences from fieldwork, the evaluation of data quality and data preparation of the ERIK-Surveys 2020 are described in the ERIK Methodological Report II (Schacht et al. 2022).

The present report is similar in structure to the ERIK Methodological Report I in that it contains information on the target populations (see Chapter 3), the sampling frames (see Chapter 4) and the sampling designs (see Chapter 5) of the ERIK-Surveys 2022. Information on KiBS is also included again, with the reference year 2020 (Chapter 7). The chapters on the planned survey design (see Chapter 6) and the revision of the ERIK instruments (see Chapter 8) are new. The latter chapter is particularly important because it gives for the first time information on the ERIK survey instruments. The similarities and differences in the contents of the three ERIK Methodological Reports I, II and III are illustrated in Figure 2.0-1.

### 3. Target Populations

In the ERiK project, the perspectives of different target populations in the field of Early Childhood Education and Care (ECEC) are collected. For the ERiK-Surveys 2022, these target populations are directors of day-care centres, pedagogical staff in these centres, family day-care workers, youth welfare offices, providers of childcare centres, parents<sup>2</sup> and children. In the following, the different target populations are defined in more detail. Figure 3.0-1 briefly summarises the target population definitions in the KJH statistics, the ERiK-Surveys 2020 and the ERiK-Surveys 2022, thereby presenting the differences and similarities between the different data sources.<sup>3</sup>

#### 3.1 Target Population of Directors of Day-Care Centres

In Germany, directors of day-care centres are responsible for implementing guidelines set by the provider and for ensuring compliance with legal and structural regulations. The directors also manage and lead the pedagogical staff and, depending on their contract, work pedagogically with the children (Buchmann/Ziesmann/Drexel 2022).

**The 2020 definition of management teams and directors responsible for multiple day-care centres was clarified in the ERiK-Survey 2022.**

In the ERiK project, only day-care centres for pre-school children are surveyed. The ERiK project defines directors of these day-care centres as those who perform the majority of the management tasks in the centre. This basic definition was used in both the ERiK-Surveys 2020 and the ERiK-Surveys 2022 (for more information on the definition for 2020 see Schacht et al. 2021). How-

ever, the definition of the target population of directors was changed in two respects compared to the ERiK-Surveys 2020:

- › If two or more people share the management tasks equally (management teams), the person with the most recent birthday in the year was asked in the invitation letter (see Section 6.1) to participate in the ERiK-Survey 2022 on behalf of the day-care centre directors. In the ERiK-Surveys 2020, such a note was missing, so it was unclear on what basis the management teams decided which director would participate. Selection by most recent birthday was introduced in the 2022 survey as a simple selection mechanism to avoid selectivity in participation behaviour, such as only directors with more time participating. In the ERiK-Surveys 2020, about 5 % of the day-care centres were managed by management teams where such a selection bias might exist.
- › Directors who are responsible for more than one day-care centre were asked in the invitation letter (see Section 6.1) to participate in the ERiK-Survey 2022 for the day-care centre for which they were contacted (sampled).<sup>4</sup> In the ERiK-Surveys 2020, such a note was missing in the invitation letter, so it was unclear whether the directors answered the questions for a specific day-care centre and, if so, whether this was for the day-care centre they were sampled for. In the ERiK-Surveys 2020, about 2 % of the directors managed more than one day-care centre, for which there could be a measurement bias accordingly.

With these two clarifications, we hope to reduce potential selection in participation and response behaviour in the ERiK-Surveys 2022 compared to the ERiK-Surveys 2020.

<sup>2</sup> The ERiK parent surveys are linked to the annual 'DJI Childcare Study' (KiBS Lippert/Anton/Kuger 2023).

<sup>3</sup> The KJH statistics do not contain direct information on parents and children, therefore the two target populations are not listed or defined in the figure.

<sup>4</sup> If contacted for more than one day-care centre, the directors were asked to complete a separate questionnaire for each centre.

Figure 3.0-1: **Target Populations in the KJH statistics, ERIK-Surveys 2020 and ERIK-Surveys 2022**



Note: The population sizes (N) for the KJH statistics refer to the year 2020 and the ERIK population sizes (with the exception of the provider N) are calculated on the basis of the KJH N as described in Chapter 4. The KJH N for directors and pedagogical staff is depicted without centres exclusively for children attending school for better comparability with the ERIK-Surveys 2020 and 2022, where these centres are also excluded from the target population. SGB VIII: Book VIII of the German Social Code (in German: Sozialgesetzbuch Achtes Buch, Kinder und Jugendhilfe)

**In the ERiK project, all day-care centres have a director who is responsible for most of the management and leadership tasks in a day-care centre – in contrast, in the KJH statistics 8 % of the day-care centres have no official director.**

In the ERiK-Surveys 2022, the definition of the term ‘director’ differs from the definition in the KJH statistics, just as it does in the ERiK-Surveys 2020. In the official KJH statistics, only persons whose employment contract provides the most or second most time resources for management tasks are considered directors (part III.1 Federal Statistical Office 2013). This means that in some day-care centres, by definition, no person can be considered the director if it is not a major part of their contract. In 2020, 8 % of the day-care centres did not have a director according to the definition of the KJH statistics.

For planning the ERiK-Survey 2022 of directors, the population size of directors is assumed to be identical to the total number of day-care centres in Germany recorded in the KJH statistics for 2020 (N=53,742 excluding day-care centres exclusively for school children), as every day-care centre has one director according to ERiK definition<sup>5</sup>

### 3.2 Target Population of Pedagogical Staff in Day-Care Centres

In the ERiK-Surveys 2022, pedagogical staff were defined as persons who

- › work in a day-care centre for children not yet attending school,
- › provide early childhood education and care,
- › do not perform management tasks, and
- › do not work as volunteers.

In this respect, the definition of the target population of pedagogical staff still includes non-professionals employed to provide educational and care services, such as trainees, interns and apprentices. At the same time, the definition excludes employees with mainly non-pedagogical tasks, such as administrative staff, janitors and

kitchen staff – just as in the ERiK-Surveys 2020 (for more information on the definition for 2020 see Schacht et al. 2021).

**In contrast to the KJH statistics, the definition of pedagogical staff in the ERiK-Surveys 2020 and 2022 explicitly excludes directors from the target population.**

However, we also implemented some minor changes in the definition of the target population of pedagogical staff compared to 2020. First, in contrast to the ERiK-Surveys 2020, persons who perform full-time or pro-rata management tasks were explicitly excluded from the definition of pedagogical staff, as their perspective will be taken into account in the ERiK-Survey 2022 of directors (see Section 3.1). In the ERiK-Surveys 2020, directors could take part in the survey of the pedagogical staff if they were members of a team of directors or a deputy director, which applied for about 14 % of the pedagogical staff in the ERiK-Survey 2020. This may have distorted the population estimators if the directors’ perspective varied systematically from that of the pedagogical staff. The clearer distinction between the target groups of directors and pedagogical staff in the ERiK-Survey 2022 should minimise this bias.

**Compared to the ERiK-Survey 2020, the target population of pedagogical staff was adjusted to strengthen multiperspectivity and achieve a more exact weighting.**

Secondly, in contrast to the ERiK-Survey 2020, the ERiK-Survey 2022 of pedagogical staff also excludes volunteers, in line with the definition in the KJH statistics. By aligning the definition of the target population with the definition of the KJH statistics, a more accurate weighting of the data collected in 2022 is possible.<sup>6</sup>

Despite these two changes to the target population definition, the same target population size is assumed for the weighting of the ERiK Survey 2020 and for the sampling design of the ERiK Sur-

<sup>5</sup> Since the ERiK-Surveys 2022 start in January 2022, the KJH statistics 2021/22 were not available for the sampling of the day-care centres. Therefore, the KJH statistics 2020 were used as a reference for the population size.

<sup>6</sup> For more information on the weighting of the ERiK-Surveys 2020 see Methodological Report II (Schacht et al. 2022)



vey 2022, which comprises an N of 583,888 pedagogical staff.<sup>7</sup>

This N is from the KJH statistics for 2020. At the time of planning the sample design of the ERiK-Surveys 2022, no more recent data was available from the KJH statistics than for 2020, which was also used for the weighting of the ERiK-Surveys 2020. Therefore, the same target population sizes are used for the weighting of the ERiK-Surveys 2020 and the planning of the ERiK-Surveys 2022.

### 3.3 Target Population of Family Day-Care Workers

The ERiK-Surveys 2020 and 2022 of family day-care workers targeted family day-care workers in Germany who actively provide care for at least one child, assuming that every family day-care worker who provides ECEC according to § 22 and § 23 SGB VIII holds a permit for family day-care granted by the responsible youth welfare office. These permits (in case of compliance with the requirements regulated in § 43 section 2 SGB VIII, e. g. relevant expertise and the associated personality) are granted for a period of five years (§ 43 section 3 SGB VIII) by the youth office in the district the family day-care worker lives in. Under the terms of § 43 section 1 SGB VIII, family day-care workers need a permit when:

1. They do not supervise the child(ren) within the dwelling of their parents (legal guardians).
2. They supervise the child(ren) during the day for more than 15 hours per week.
3. They receive a salary for more than three months.

In 2019 and 2020, the majority (around 68 %) of family day-care workers supervised children within their own home, whereas only around

9 % worked within the household of the supervised child(ren) (Müller/Tiedemann 2022; Ullrich-Runge/Lipowski 2019).

A family day-care worker is usually allowed to provide care for up to five children (§ 43 section 3 SGB VIII), while larger family day-care facilities (in German: Großtagespflegestelle or (Kinder-)Tagespflegegemeinschaft) operated with an average capacity of about nine children per facility in 2020 (Klinkhammer et al. 2022). In larger family day-care facilities, two or more family day-care workers can provide childcare for more than five children.<sup>8</sup> Eleven federal states allow supervision within larger family day-care facilities, namely Baden-Württemberg, Bavaria, Berlin, Bremen, Hamburg, Hesse, Mecklenburg-Western Pomerania, Lower Saxony, North Rhine-Westphalia, Saarland and Saxony.

**Like the KJH statistics, only family day-care workers actively providing day-care are part of the target population for the ERiK-Surveys 2020 and 2022.**

The annual official statistics on children and employees in publicly funded family day-care (Federal Statistical Office 2020) and the statistics on employees in larger day-care facilities and the children supervised there (ibid.) surveys all family day-care workers who are publicly funded and larger family day-care facilities in Germany as part of the KJH statistics. For example, information on the overall number of family day-care workers and the children in their care is collected. According to the KJH statistics, there were 44,782 family day-care workers and 4,486 family day-care facilities in 2020, which cared for about 154,230 children in total (Müller/Tiedemann 2022). The responsibilities of local youth welfare offices are regulated in § 23 sections 1 and 4 SGB VIII and include the public funding of family day-care workers and larger family day-care facilities. To be more precise, apart from financial funding, youth offices are responsible for:

- › the allocation of children to family day-care workers,
- › counselling for family day-care workers and parents,

<sup>7</sup> As the KJH statistics only provide the joint population of directors and pedagogical staff, the size of the pedagogical staff target population was calculated by subtracting the number of day-care centres from this joint population in the KJH statistics 2020. This is possible because the ERiK definition of directors in the ERiK-Surveys 2022 assumes that at least one person in each childcare centre takes on management tasks and is therefore considered a director in the ERiK-Surveys 2022 (see Section 3.1).

Because pedagogical staff, who are also responsible for managerial tasks, are excluded from the target population in the ERiK-Surveys 2022, there is a small (non-calculable) inaccuracy in the N of the target population. While these cases were included in the pedagogical staff definition in the ERiK-Surveys 2020, the target population definition was changed for the ERiK-Surveys 2022 in order to distinguish between the perspectives of the two populations more clearly. Thus, the share of pedagogical staff with managerial tasks, which amounted to about 17 % in the ERiK-Surveys 2020, was not taken into account in the ERiK-Surveys 2022.

<sup>8</sup> Distinct from these general regulations, larger family day-care facilities in Saxony are only allowed to care for only five children.



- › practical supervision of family day-care workers by the youth office,
- › qualification courses for family day-care workers and
- › additional services regulated by the respective federal state.

If parents and family day-care workers have a contract with each other without the involvement of the local youth welfare office, this arrangement is deemed as private and may therefore not be included in the KJH statistics. In addition, the KJH statistics do not cover family day-care workers who are solely funded by religious establishments or welfare/youth organisations.

In sum, the definition of family day-care workers in the ERiK-Surveys 2020 and 2022 focuses on their permit and in the KJH statistics on their funding according to § 23 sections 1 and 4 SGB VIII. However, it remains unclear whether and to what extent this distinction (1) covers different populations (data on the coverage of these populations is missing) and (2) is actually applied by the youth offices when forwarding the contact materials (see also Section 6.2).<sup>9</sup>

**In contrast to the ERiK-Surveys 2020, family day-care workers who exclusively look after school children were excluded from the ERiK-Surveys 2022.**

In contrast to the KJH statistics, the ERiK-Surveys of family day-care workers in 2020 and 2022 only target family day-care workers in Germany who provide care for children who are not yet attending school. The exact size of the ERiK population is not known, but will be somewhat lower than the 43,000 family day-care workers in the official statistics in 2021 (Federal Statistical Office 2021a).

The target populations of the ERiK-Survey 2020 and ERiK-Survey 2022 are basically identical (for more information on the definition for the ERiK Survey 2020 see Schacht et al. 2021). However, in contrast to the ERiK-Survey 2020, the questionnaire of the ERiK-Survey 2022 contained specific questions to identify persons who do not belong to the target population (see Section 8.2). These

questions determined whether family day-care workers:

1. exclusively look after school children,
2. hold a valid permit for day-care, and
3. are publicly funded or not.

During data collection, respondents that provide care exclusively for school children were not included in the survey because these family day-care workers are not part of the ERiK target population, but are still legally family day-care workers. This clarification in the definition of the target group of day-care workers is intended to ensure that statements are only made about the pre-school education sector based on the ERiK-Surveys 2022. The other two questions provide additional information to confirm that no coverage error occurs and respondents should still complete the questionnaire regardless of their answers.

For the ERiK-Surveys 2022, family day-care workers are essentially defined as persons who have a valid permit, who are publicly funded and who currently provide childcare for at least one child not yet attending school.

### 3.4 Target Population of Youth Welfare Offices

In accordance with § 79 SGB VIII, the ERiK-Survey 2022 of youth welfare offices is directed at all 575 local youth welfare offices in Germany, with a particular focus on their planning and management function.<sup>10</sup> The local youth welfare offices can be distinguished on the basis of four territorial authorities (see *ibid.*):

1. county youth offices (in German: Kreisjugendämter),
2. youth offices of cities not associated with a county (in German: Jugendämter kreisfreier Städte/Stadtjugendämter),
3. youth offices of cities/municipalities associated with a county (in German: kreisangehörige Jugendämter)
4. youth offices of districts of city federal states (in German: Bezirksjugendämter) (Berlin, Hamburg).

**There were unexpected changes to the youth welfare office target population in Hamburg.**

<sup>9</sup> Youth welfare offices are responsible for the information in the KJH statistics on family day-care workers and at the same time forward the questionnaires to the family day-care workers in the ERiK-Surveys 2020 and 2022. In this respect, there is probably only minimal deviation in practice.

<sup>10</sup> Questions related to the role of the youth welfare office as a childcare provider are included in the ERiK-Surveys 2020 and 2022 for childcare providers (see Section 3.5).

The responsibilities of the local youth offices<sup>11</sup> in Germany differ from those of the state youth welfare offices (in German: Landesjugendämter). The local youth welfare offices are responsible for the assignment of services in accordance with SGB VIII (including vocational training (§ 74 (6) SGB VIII)) and also for granting operating permits to family day-care workers (§ 87a section 1 SGB VIII). The state youth welfare offices, for their part, are responsible for managing the local youth welfare offices and for supraregional tasks. As they are less involved in the local management and coordination of child day-care, technically they should not be included in either the ERiK-Survey 2020 or the ERiK-Survey 2022 (for more information on the ERiK-Surveys 2020 see Schacht et al. 2021).

When the ERiK team updated the sampling frame of youth welfare offices at the end of October 2021 (for more information see Section 4.3 on the sampling frame), the total of 575 youth welfare offices in Germany did not change. However, after sending out the advance letters for the ERiK-Survey 2022 (see Section 6.2 on contacting), the ERiK team received feedback that in Hamburg only the central administration in the state youth welfare office had the necessary information to fill out the questionnaire on behalf of the seven youth offices in the city districts. It was only at this point that the ERiK team was informed that this procedure had already been used when filling out the questionnaires for the ERiK-Survey 2020, without notifying the ERiK team.<sup>12</sup>

In order to obtain the information necessary for the ERiK monitoring, this situation was dealt with as follows. The target population is clearly defined by the responsibility of a local youth welfare office. However, in the case of Hamburg these tasks are actually fulfilled by the state youth office. Thus, the population size has to be reduced by the seven youth offices of city districts in Hamburg and then increased by one for the state youth office. Resulting in a reduction in the number of youth welfare offices from 575 to 569 youth welfare offices in the target population. This change is also reflected in Figure 3.0-1, which shows the

corrected number of youth offices for the N of the ERiK-Survey 2022 with the original N in parentheses.

However, there were no changes between the ERiK-Surveys 2020 and 2022 in terms of the youth office staff that were contacted. For the ERiK-Surveys 2020 and 2022 of youth welfare offices, executives or employees of every youth welfare office (depending on the individual internal organisational structure) whose responsibility lie in the area of ECEC, were or will be contacted. Due to the wide range of tasks and responsibilities in the context of ECEC, the survey may in some cases be forwarded to several employees within a youth office.<sup>13</sup>

**The KJH statistics include fewer youth offices than the ERiK-Surveys 2020 and 2022.**

Since the target population definition varies between the KJH statistics and the ERiK project, the population size also differs. While the KJH statistics indicate one youth welfare office each for Berlin and Hamburg, the ERiK-Survey 2022 takes into account the respective twelve districts in Berlin (but not in Hamburg as outlined above). The inclusion of Berlin's city district youth offices in ERiK is based on the fact that they act independently from each other (and the state youth welfare office). Therefore, the institutional decisions can be examined in a more differentiated manner.<sup>14</sup>

### 3.5 Target Population of Providers of Childcare

Like the ERiK-Survey 2020, the ERiK-Survey 2022 targets all types of providers of childcare<sup>15</sup> holding a permit according to § 45 SGB VIII and whose day-care centres (also) care for children not yet attending school (ibid.).

**There are no changes to the provider target population.**

11 Throughout this report, we use the terms 'youth welfare office' and 'youth office' interchangeably.

12 Nevertheless, the seven youth offices of the city districts are still asked to forward the documents to family day-care workers; for more information on the indirect sampling of family day care workers in the ERiK-Surveys 2022, see Section 5.2.

13 This circumstance is taken into account in the youth welfare office questionnaire by structuring it in modules with certain topic blocks, so that all questions on child day-care workers are asked in one module, for example, and could thus be forwarded to a person in the youth welfare office who is responsible for this. More information on the questionnaire can be found in Section 8.2.

14 In the ERiK-Survey 2020, the seven city district youth offices in Hamburg were also included separately because, as outlined above, we only learned after the survey that they do not work independently like the ones in Berlin.

15 Throughout this report, we use the terms 'providers of childcare (centres)', 'childcare providers' and 'providers of day-care centres' interchangeably for the institutions described in this section.

Providers are legal entities (in German: Rechts-träger; Kalicki 2003) offering early childhood education and care services (Strehmel/Overmann 2018). Besides supplying childcare services, providers determine the working conditions of the pedagogical staff and the framework requirements for the pedagogical work in day-care centres (Peucker/Pluto/Santen 2017; Strehmel 2019). Furthermore, providers are the entities that are mainly in charge of quality assurance and development in day-care centres (Klinkhammer/Riedel 2018).

The provision of childcare services in Germany is highly decentralised (Hogrebe 2016) and characterised as a mixed economy (ibid.; Lloyd/Penn 2014).<sup>16</sup> A core distinction is made between public providers (in German: Träger der öffentlichen Jugendhilfe) and private providers (in German: Träger der freien Jugendhilfe) of ECEC services (Merchel 2018). Running more than two-thirds of the approximately 54,000 German day-care centres in 2020 (Preuß/Ulrich 2022), private providers range from non-profit entities, i.e. churches, welfare organisations and other associations, to private for-profit entities (Merchel 2018). The private-for-profit market accounts for 3 % of the day-care centres in Germany, which is rather small (Scholz et al. 2019) compared to some European countries, such as the UK (West/Blome/Lewis 2019) and the Netherlands (Akgündüz/Yusuf Emre/Plantenga 2014).

The pluralistic provider landscape to be covered in the target population is in line with the ‘principle of subsidiarity’ and the ‘principle of diversity’ (Scholz et al. 2019). According to the subsidiarity principle (§ 4 SGB VIII), private providers are assigned priority over public providers when establishing new services. Public providers (e.g. municipalities, youth welfare offices) are obliged to provide day-care centres if private providers do not sufficiently cover the existing demand (see § 4 SGB VIII). Therefore, it is not surprising that the private, non-profit sector dominates childcare provision in Germany (Oberhuemer/Schreyer/Neuman 2010; Spieß/Berger/Groh-Samberg 2008; West/Blome/Lewis 2019). The pluralistic provision structure also results from the principle of diversity of providers stipulated in § 3

SGB VIII, which refers to conceptual variety, differing values and orientation (Scholz et al. 2019) and “aims to guarantee a certain degree of choice for parents at the service level (...)” (ibid., p. 50).

**The target population of providers is only indirectly covered in the KJH statistics.**

In the KJH statistics, the providers of day-care centres are not recorded as a target population so that no comparison of the target population and the target population sizes is possible. A novel approach by Lisa Ulrich and Diana D. Schacht (2021) enables indirect statements about providers compared to the KJH statistics: The provider survey data is transformed to the level of child day-care centres and then calibrated to the KJH statistics.

In this context, Kirsten Fuchs-Rechlin and Birgit Riedel (2021) also recommend the creation of official statistics in order to obtain more detailed information on the provider landscape and its development.

### 3.6 Target Population of Children in Day-Care

The purpose of the ERiK-Survey 2022 of children is to capture how children experience different aspects of their everyday life in day-care and to integrate the children’s perspective into the monitoring of the KiQuTG. Including the view of children in the monitoring is important as children are the main addressees of day-care and at the same time competent agents who actively shape daily life in day-care centres.

So far, there have been only few standardised surveys of young children in the German ECEC context (see Schelle/Blatter/Michl 2019). In our survey, we do not only include children in their last year before entering school like some other studies do, but also give younger children the opportunity to express their views. For a discussion about the age at which children can be interviewed using standardised questionnaires see Vogl (2015).

**The ERiK-Survey 2022 of children focuses on children aged between four and seven years.**

The target population of the ERiK-Survey 2022 of children consists of children who are

<sup>16</sup> Within a mixed economy, elements of public, non-profit and for-profit provision of childcare co-exist (Hogrebe 2016; Lloyd/Penn 2014).

### 3 Target Populations

- › aged between four and seven years,
- › attending a day-care centre in Germany and
- › not yet attending school.

According to the official KJH statistics, in 2021<sup>17</sup> 1,906,243 children aged 4 years or older were attending day-care centres in Germany and not yet attending school (Federal Statistical Office 2021b).

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<sup>17</sup> Reporting date: 1 March 2021.

## 4. Sampling Frames

Once the target population has been defined, the next question to be addressed when drawing up a sampling design is the availability of a suitable sampling frame. A sampling frame that covers all elements of the target population is meant with this – in other words, possible variations between target populations and the sampling frame should be minimised (known as coverage error, Groves 1989). One strategy to reduce coverage error is to obtain sampling frames that are as complete as possible (or use a frameless sampling strategy where most or all of the target population has a positive chance of being included in the sample, e.g. Fricker 2008). In Germany, for example, adequate sampling frames for telephone surveys can be created by combining different telephone lists (S. Häder 2016).

However, the availability of suitable sampling frames for the field of ECEC in Germany is problematic (Schacht et al. 2021). First, there are no publicly accessible official sampling frames for five of the target populations studied in the ERiK project. Second, analyses with the ERiK-Surveys 2020 have shown that lists of day-care centres and providers acquired commercially are likely to be biased due to coverage errors. At the same time, the quality of the lists for the youth welfare offices was rated as comparatively high (for more information see ERiK Methodological Report II, Schacht et al. 2022).

This chapter presents the respective sampling frames of the target populations presented previously (see Chapter 3) and assesses their coverage in relation to the target population. Moreover, it clarifies whether the sampling frame contains supplementary characteristics that could be used as stratification variables.

### 4.1 Sampling Frame of Directors of and Pedagogical Staff in Day-Care Centres

In Germany, an official registry for day-care centres (also) caring for children not yet attending school does not exist. Thus, in the ERiK-Surveys 2020, the ERiK project used a sampling frame of day-care centres acquired commercially. The list comprised a total of 54,530 day-care centres. A quality check of the commercial list of day-care centres with address lists provided by some German federal states indicated that there was likely a considerable coverage error as the overlap between the two lists was less than 50 % (for more information see Schacht et al. 2021).

#### Sampling frames for the ERiK-Surveys 2022 provided by the German federal states

In order to improve the quality of the sampling frame for day-care centres in the ERiK-Surveys 2022, the ERiK project asked all German federal state governments to provide contact information for day-care centres (excluding day-care centres exclusively for school children; in German: reine Horte) and providers of childcare. All 16 federal states provided the corresponding address lists. These served as the basis on which the day-care centres were sampled in order to reach the target populations of directors and pedagogical staff employed there (see Sections 3.1 and 3.2).

The lists from the German federal states were collected between July and November 2021 and comprised information on a total of 60,078 day-care centres. The lists contained the names and postal addresses for all day-care centres and additionally provided the telephone numbers and e-mail addresses for some centres. The sampling frame of the ERiK-Surveys 2022 therefore for the first time allows a merging of the data of directors, pedagogical staff and providers (with the exception of Saxony). Table A.0-1 in the appendix



summarises which information was provided by each federal state.

**The sampling frame of the ERiK-Surveys 2022 allows for the merging of the data of directors, pedagogical staff and providers.**

In contrast to the commercial list used for the ERiK-Surveys 2020, the sampling frame of the ERiK-Surveys 2022 allows childcare providers to be matched to their corresponding day-care centres and vice versa (with the exception of Saxony).

Table 4.1-1 summarises the total number and the proportion of day-care centres which were excluded from the sampling frame after checking the entries for duplicates and their fit to the target population:

- › By comparing the names and postal addresses of day-care centres and the name of their providers, 17 day-care centre duplicates were identified and deleted. After adjusting for duplicates, the address list contained 60,061 day-care centres.
- › Furthermore, 55 day-care centres were manually deleted if the name or the postal address indicated that the day-care centre was a provisional one (e. g. if the name contained 'Provisorium') or the final centre was under construction (and thus no name was available yet).
- › Day-care centres offering care services exclusively for children attending school (in German: reine Horte) are not part of the target population (see Section 3.1). For this reason day-care centres were excluded if the centre's name contained 'Schulhort' or 'Schülerhort' or similar expressions containing both 'Schule' (in English: school) and 'Hort' (in English: day-care centres (exclusively) for school children). However, a centre was nevertheless included, if its name did contain an indication of the defined target population such as 'Kindergarten', the word stem 'Kindertages' (in English: day-care) or 'Krippe' (in English: day nursery). Based on this definition, 2,483 day-care centres were deleted from the sampling frame.

However, despite these efforts it is likely that some day-care centres remained in the list that should have been excluded because they are not part of the target population.

**Table 4.1-1: Sampling Frame ERiK-Survey 2022: Day-Care Centres**

	Total	Proportion
Number of day-care centres	60,078	100.00
Duplicate entries	17	0.03
Further exclusions, e. g. provisional day-care centres	55	0.09
Day-care centres (exclusively) for school children	2,483	4.13
Sampling Frame in 2022	57,523	95.75

Source: German federal state lists

Since the information on day-care centres' phone numbers was missing for 5,029 cases, the information was supplemented by the commercial database company Data M in January 2022. The provider type (necessary for weighting) for the sampled day-care centres in Saxony (n=1,053) was also supplemented because the sampling frame did not allow matching of childcare providers to their corresponding day-care centres.<sup>18</sup>

The final sampling frame of day-care centres (also) for children not yet attending school includes 57,523 centres. The day-care centres for the ERiK-Survey 2022 of directors were drawn from this frame. This is also the case for pedagogical staff, though indirectly, as the staff will be contacted through the directors.

## 4.2 Sampling Frame of Family Day-Care Workers

An official sampling frame of publicly funded family day-care workers does not exist. Therefore, the ERiK-Survey 2020 of family day-care workers used the youth offices to provide the sampling frame: Each youth office is able to contact all family day-care workers who belong to the ERiK target population in its own jurisdiction, as they provide funding and/or other services to publicly funded family day-care workers and large family day-care facilities (see Section 3.4). Since a valid alternative frame to directly sample and contact our target population of family day-care workers in Germany still does not exist, the ERiK project used the same approach in the ERiK-Survey 2022.

<sup>18</sup> After the collection of additional information, the merging of day-care centres and their providers is also possible in Saxony for those centres and providers that were sampled for the ERiK-Surveys 2022.

#### No sampling frame publicly available for family day-care workers

Thus, to gain access to this hard-to-reach population, the ERiK project asked youth offices to forward questionnaires to family day-care workers living in the respective youth office district in 2022. The KJH statistics use the same approach, however while participation in the survey of the KJH statistics is obligatory for the youth welfare offices (§ 102 SGB VIII) it is voluntary for the ERiK project.

With respect to the target population, the chosen sampling frame could produce coverage errors for two reasons: First, it is possible that the youth offices excluded some family day-care workers, who appeared irrelevant to the youth offices in this context for various reasons. Second, there is a chance that some youth offices list inactive or former day-care workers, such as family day-care workers currently on parental leave, some who have already retired or those who quit this job to work elsewhere. This may include those family day-care workers who have changed from a public to a privately funded work setting.<sup>19</sup> To address this issue the questionnaire of the ERiK-Survey 2022 expanded the screening questions covering the issue of the public funding of family day-care, hopefully enabling an identification of those cases. In addition, all inactive family day-care workers will be eliminated during data cleaning.

#### ERiK-Surveys and KJH: almost the same population of family day-care workers

As a result, the ERiK-Surveys 2022 are more similar to the KJH statistics than the ERiK-Surveys 2020 were. Nevertheless, both ERiK-Surveys only target family day-care workers and large family day-care facilities that currently provide care for at least one child who is not yet attending school. Those family day-care workers who do not fulfil these conditions will be excluded using the screening questions.

## 4.3 Sampling Frame of Youth Welfare Offices

The DJI can draw on some experience in conducting surveys of youth welfare offices. For the ERiK-Survey 2020, the ERiK-team received the contact details of youth welfare offices from the projects ‘Social Assistance in Transition’ (in German: Jugendhilfe und Sozialer Wandel, JHSW; Gendlgruber 2019) and ‘Quality in Child Day-Care’ (in German: Qualität in der Kindertagespflege, QuidKit; Burg/Hess 2017).

#### Same sampling frame as in the ERiK-Surveys 2020

According to this sampling frame, there were N=575 youth welfare offices in Germany in October 2021. This number excludes state youth welfare offices, which are not part of the target population. In October 2021, the contact information (institution name, state, postal address, youth office district and e-mail address) which was available after the ERiK-Survey 2020 was updated and minor inconsistencies (e.g. spelling errors, district names) were rectified. Over time, the number of youth welfare office districts may change minimally due to reforms and structural changes, but according to the research of the ERiK-team, it has remained constant since the ERiK-Surveys 2020.<sup>20</sup>

## 4.4 Sampling Frame of Providers of Childcare

In Germany, there is no nationwide register data of providers of childcare, so the total number of German providers who operate day-care centres for early childhood education and care is not unambiguously determinable (Schacht et al. 2021). Due to the lack of register-based sampling lists, ERiK acquired the information on providers and day-care centres for the ERiK-Surveys 2020 commercially. The sampling frame in 2020 comprised a total of 14,868 addresses of providers and pre-

<sup>19</sup> Completely privately funded family day-care workers are not usually registered with youth offices.

<sup>20</sup> Due to the decentralized organisation of the youth welfare offices in Hamburg, the central administration in the state youth welfare office must complete the questionnaire in 2022 on behalf of the seven district youth welfare offices (see Section 3.4). However, the seven district youth welfare offices will continue to be asked to forward the documents to the relevant persons as part of the survey of family day-care workers. Therefore, the sampling frame of 575 youth offices remains the same as in 2020.

Table 4.4-1: **Sampling Frame ERiK-Survey 2022: Providers of Childcare**

	Total	Proportion
Number of providers of childcare	22,514	100.00
Duplicate entries	577	2.56
Further exclusions, e.g. day-care centre is under construction	41	0.18
Providers of day-care centres for school children	272	1.21
Sampling Frame in 2022	21,624	96.05

Note: Providers of childcare who operate day-care centres in multiple federal states may be listed more than once.

Source: German federal state lists

sumably did not cover the entire target population (undercoverage error; for more information see Schacht et al. (2021)).

#### **Lists made available by the German federal states form the sampling frame of childcare providers in 2022.**

To improve the quality of the address data for the ERiK-Surveys 2022, lists were requested from and submitted by each of the 16 German federal states during the time period between July and November 2021. These lists form the basis for the sampling frame of providers and day-care centres (see Section 4.1) in 2022 and comprised the name of the provider and its postal address. For some of the providers listed, additional information was included: the type of providers, such as church-affiliated providers or public providers, phone numbers, e-mail addresses and the number of day-care centres managed by the provider. Table A.0-2 in the appendix presents an overview of the information given by the federal states.

Since basic information, i. e. e-mail addresses (about 12,900 cases), phone numbers (about 8,000 cases) and entries on the provider type (about 9,000 cases), are not fully included in the federal states' lists (see Table A.0-2), the lists were supplemented with data acquired commercially in early 2022.

The available cases were scanned for duplicates, further errors and providers whose day-care centres (exclusively) care for school children (out of target population, see Section 3.5). The results of the sampling lists revision are shown in Table 4.4-1.

#### **The sampling frame of childcare providers comprised 21,624 addresses.**

After excluding duplicates (577 cases), errors – e. g. day-care centre is currently under construction – (41 cases) and providers whose day-care centres care exclusively for school age children (272 cases)<sup>21</sup> (for detailed information see Section 4.1), a total of 21,624 addresses of providers<sup>22</sup> were available (see Table 4.4-1).

### **4.5 Sampling Frame of Children in Day-Care**

The sample for the ERiK-Survey 2022 of children targets children aged four years or older not yet attending school who regularly attend childcare in an institutional setting (see Section 3.6). To enable the linking of the children's data to the data of directors and pedagogical staff and thus establish multiperspectivity, the sample of the ERiK-Survey 2022 of children is based on the sample of day-care centres which participated in the ERiK-Surveys 2020.<sup>23</sup> To be included in the sampling frame of the ERiK-Survey 2022 of children, day-care centres had to meet specific conditions:

- › To ensure the multiperspectivity, the director as well as at least one member of pedagogical staff had to have participated in the ERiK-Surveys 2020. This was the case for 2,211 day-care centres.
- › The day-care centre is attended by children belonging to the approximated target population.<sup>24</sup> Therefore, day-care centres which (according to the director) do not provide care for children of the approximated target population, or where the information on children is missing, have been excluded (n=346).

<sup>21</sup> In Saxony, it was not possible to exclude any providers of day-care centres for school children, as it is not possible to match the centre data with the provider data.

<sup>22</sup> Providers of childcare who operate day-care centres in multiple federal states may be listed more than once.

<sup>23</sup> More information on the ERiK-Surveys 2020 of directors and pedagogical staff can be found in the ERiK Methodological Reports I and II (Schacht et al. 2021, 2022).

<sup>24</sup> The only information available on the centre level approximating the attendance of children belonging to the target population was: the number of children aged *three* years or older and not yet attending school. This information was used as a proxy for the target population being cared for in the centre here as well as in the next two conditions and is referred to as the 'approximated target population' in the text.



**The sampling frame of the ERiK-Survey 2022 of children comprises 1,850 day-care centres which already participated in the ERiK-Surveys 2020.**

These criteria are applied in order to sample day-care centres which are likely to be attended by children belonging to the target population in 2022 and for which data on children, directors and pedagogical staff can be combined. Since the sampling frame of children is based on the ERiK-

Surveys 2020 of directors and pedagogical staff which used an address list acquired commercially, this sampling frame has the same potential coverage error as the frame of these ERiK-Surveys 2020 (see Section 4.1 or *ibid.*). Furthermore, there is additional selection due to the restriction on centres where both the director and pedagogical staff participated and provided plausible information on the number of children. The resulting final sampling frame for the ERiK-Survey 2022 of children consists of 1,850 day-care centres.



## 5. Sampling Designs

As in the ERiK-Surveys 2020, we employed different sampling designs for the different target populations of the ERiK-Surveys 2022. The overall sampling designs were not changed substantially compared to the ERiK-Surveys 2020 but have been adjusted slightly for the ERiK-Surveys 2022.<sup>25</sup>

Specifically, the ERiK team updated the number of sampled cases per target population in each state to improve the validity and generalisability of statements for the 16 German states. The calculations leading to the new sample sizes are exemplified for two example states (Bavaria and Saarland) as well as for Germany overall in the tables in the following sections.<sup>26</sup> In addition, we made changes to the number of cases sampled for the different contact modes and questionnaire distribution options in the indirect sampling plans which are explained below for each target population.

As in the previous chapters, we begin by presenting the sampling design for the directors and pedagogical staff (see Section 5.1), and continue with family day-care workers and youth offices (see Section 5.2), before moving on to providers (see Section 5.3) and children (see Section 5.4).

### 5.1 Sampling Design for Directors of and Pedagogical Staff in Day-Care Centres

This section first explains the sampling design of the ERiK-Survey 2022 of directors before drawing the connection to and explaining the sampling design of the pedagogical staff in the ERiK-Surveys 2022.

#### Only minimal changes in the sampling design of directors compared to the ERiK-Survey 2020

The aim of the sampling design for day-care centres was to survey enough directors in the ERiK-Surveys 2022 to allow generalisable statements at the federal state level.<sup>27</sup> The sampling design did not change substantially compared to the ERiK-Surveys 2020. The sample of day-care centres is again stratified across the German federal states and randomly sampled in each state independently.

#### Infobox 5.1 Gross and Net Sample

The *gross sample* is the initial sample of a survey that includes all selected units (e. g. persons or institutions) that could potentially participate in the survey. It also includes people/institutions that cannot be interviewed due to various reasons such as difficult accessibility, illness or refusal to participate.

The *net sample* is what remains after deducting all non-participants from the gross sample. In other words, the net sample includes all responding units of the gross sample from which evaluable data is available (see e. g. Jacob/Eirmbter/Ludwig-Mayerhofer 2009).

However, we determined the number of centres to draw in each state separately instead of relying on broad categorisations of the state size as in the ERiK-Surveys 2020 (see Schacht et al. 2021). The calculations that led to the gross sample (see Infobox 5.1) of about 18,000 centres can be seen in Table 5.1-1 for Germany and the two example states.<sup>28</sup>

In the ERiK-Survey 2020 of directors, the number of valid questionnaires was too small in one

<sup>25</sup> In the case of the ERiK-Survey 2022 of children, there was no survey in 2020, so a comparison is not possible.

<sup>26</sup> These two states were chosen to represent a state with a large population and a large area (Bavaria) and one with a smaller population and a smaller area (Saarland). The complete calculations for all designs in all states can be found in Appendix A.

<sup>27</sup> A centre is assumed to have one director each, which means by sampling (and then contacting) centres we actually draw the director sample.

<sup>28</sup> The calculations for all states are depicted in Table A.0-3 in the appendix.

Table 5.1-1: **Sampling Design ERIK-Survey 2022: Directors (for two example states)**

Directors	Bavaria	Saarland	Germany
Size of the population in 2021 (N)	9,308	473	57,523
Sample sizes needed (z=1.96, moe=0.05, p=0.5)	384	212	5,097
Sample sizes needed +5 % (Covid-19 pandemic)	404	223	5,365
Gross sample needed in 2022	1,078	888	19,814
Share gross needed / size of the population (N)	12	188	76
Gross needed in 2022 (corrected for >100 %)	1,078	473	17,991
Sample sizes to expect (corrected for gross / share n 2020)	405	119	4,972
Mode:			
Paper and online questionnaire (80 %)	863	378	14,393
Only online questionnaire (20 %)	216	95	3,598

Note: Abbreviations: n: sample size; N: population size; z: permissible error probability; moe: margin of error; p: expected proportion value of a parameter. Due to rounding, some sums may not add up perfectly.

state to draw reliable, generalisable statements for all directors in the state (see Chapter 4.3 in Schacht et al. 2022). To avoid this problem in the ERIK-Surveys 2022, we first calculated the net sample sizes required to draw these generalisable statements in each state with Formula 5.1 (M. Häder/S. Häder 2014):

$$n \geq \frac{N \cdot z^2 \cdot p(1-p)}{z^2 \cdot p(1-p) + N \cdot e^2} \quad (5.1)$$

Here  $N$  is the size of the population,  $z$  is the permissible error probability (tabulated from the standard normal distribution),  $p$  is the expected proportion value of a parameter and  $e$  is the permissible absolute sampling error (or margin of error, moe). The values used for our calculations ( $z=1.96$ ,  $moe=0.05$ ,  $p=0.5$ ) are rather conservative<sup>29</sup> and can also be seen in the row labeled ‘Sample sizes needed’ in Table 5.1-1. For example, in Saarland this first calculation resulted in 212 cases.

The main Formula 5.1 assumes that the ERIK-Surveys 2022 involve more than 5 % of the finite population ( $n/N > 0.05$ ) sampled without replacement. However, to determine the required sample size, when the sample size is smaller ( $n/N < 0.05$ ) the following Formula 5.2 is often applied (ibid.):

$$n \geq \left(\frac{z}{e}\right)^2 \cdot p(1-p) \quad (5.2)$$

Thus, we used Formula 5.2 in the calculations for the ERIK-Surveys 2022 if the sample sizes were smaller than 5 % of the population. This was the case in Baden-Württemberg, Bavaria and North

Rhine-Westphalia for the directors survey and in all states except Bremen and Saarland for the pedagogical staff survey. In Bavaria Formula 5.2 led to 384 cases.

In a second step, as recommended by experts in the field of ECEC, we added 5 % of the calculated sample size needed on top (for each state) as a buffer in case the ongoing Covid-19 pandemic further decreases the willingness to take part in surveys. This raised the number of cases in the targeted net sample from previously  $n=384$  (sample size needed) to  $n=404$  directors in Bavaria.

**The gross sample for directors consists of around 18,000 cases.**

Taking into account the response rate in each state from the ERIK-Surveys 2020, we calculated the required gross sample size (how many directors would have to be contacted; see Infobox 5.1) to achieve the aforementioned net sample sizes in each state.<sup>30</sup> The calculated gross sample size in the federal states ranged from 813 in Bremen to 1,761 in Hamburg and reached a total of 19,814 in Germany.

However, in some states, such as Saarland, the number of existing centres in the population was lower than the calculated gross sample. Thus,

<sup>29</sup> For example,  $p=0.5$  assumes the most equal distribution of values on a parameter possible, which results in an increase of the necessary sample size.

<sup>30</sup> In contrast to the design of the ERIK-Surveys 2020 (for more information see the ‘ERIK Methodological Report I’ Schacht et al. 2021), we did not rely on the response rates of other studies with similar target populations in order to calculate the gross samples for the ERIK-Surveys 2022, but rather on the response rates of the ERIK-Surveys 2020. In order to be as conservative as possible in our estimation of the necessary gross sample, we used the minimum response rate (or AAPOR Response Rate 1) which counts only complete questionnaires as participation (American Association for Public Opinion Research 2016).

in these federal states<sup>31</sup> only the existing number of centres can be contacted which reduces the total gross sample to 17,991 centres (see line ‘Gross needed in 2022 (corrected for > 100 %)’ in Table 5.1-1). Since it is impossible to increase the gross sample size in these states to reach the required net sample size, we will need to increase response rates in order to make valid generalisable statements about our populations. This might be achieved by shortening questionnaires (see Section 8.2), improving contact materials, incentives or sending reminders (see Chapter 6).

**About 80 % of directors receive paper and online questionnaires, while 20 % receive the online version.**

We randomly split the gross sample into two subsamples that vary in questionnaire mode to conduct a method test and ensure the highest possible response rate without exceeding our budget for printing and mailing the questionnaires. About 80 % of the sampled directors in each state (14,393 in total) receive a paper questionnaire via post as well as a link to the online questionnaire. In this concurrent mixed-mode survey design the respondents can choose their preferred method which should increase participation (see e.g. Dykema et al. 2013; Olson/Smyth/Wood 2012). The other roughly 20 % of directors (3,598 in total) receive a link to the online version of the questionnaire.

To summarise, the sampling design for the ERiK-Survey 2022 of directors is a random sample stratified across federal states. From the gross sample of 17,991 we calculated an expected net sample of  $n=4,972$  directors.

As in the ERiK-Surveys 2020, the pedagogical staff in day-care centres was sampled indirectly in a two-stage process (Schacht et al. 2021). This means the sample of pedagogical staff depended on the sample of (directors of) day-care centres. Likewise, the sampled directors (first stage) were asked to forward questionnaires to their pedagogical staff (second stage), because no official list of pedagogical staff is available (see Section 4.1). Another reason for this procedure is the overall project goal of a multi-perspective view of ECEC

which we achieve for day-care centres by surveying staff in centres where we also survey a director.

**Pedagogical staff and directors are surveyed in the same day-care centres.**

To determine how many questionnaires directors should distribute to their pedagogical staff, we took a similar approach for directors: We first calculated the net sample sizes necessary to make generalisable statements on the state level (e.g.  $n=362$  in Saarland) and added a 5 % buffer on top (resulting in  $n=381$  in Saarland). Then the response rates per state of the ERiK-Survey 2020<sup>32</sup> were taken into account to compute the gross samples needed to reach the required net sample sizes. These gross sample sizes ranged from 1,584 in Rhineland-Palatinate to 4,931 in Hamburg and totalled 40,798 in Germany across all federal states. These calculations can be viewed in Table 5.1-2 for two example states and Germany in total and for all states in the appendix in Table A.0-4.

**The gross sample for pedagogical staff consists of about 40,800 cases.**

For the distribution of the questionnaires within the centres, two aspects were decided by the ERiK team:

First, we decided that each day-care centre sampled for the directors’ survey should contact at least one pedagogical staff member within the centre so that better multiperspectivity is ensured in comparison to the ERiK-Surveys 2020 (see ‘ERiK Methodological Report I’ *ibid.*). In other words, the simultaneous participation of a director and at least one pedagogical staff member should be achieved. Second, we decided that only as many centres as necessary according to the calculations for the director survey should be contacted and that there should be no centres where only pedagogical staff would be surveyed. This again aims at ensuring multiperspectivity. The gross sample of pedagogical staff should then be evenly distributed over this number of centres. This leads to differences in the number of questionnaires per centre (ranging from one to six pedagogical staff members).

31 These federal states are Bremen, Hamburg, Mecklenburg-Western Pomerania, Saarland and Saxony-Anhalt.

32 This response rate of the pedagogical staff also includes the approximated probability that the respective director in the centre forwarded the questionnaires to the pedagogical staff.

Table 5.1-2: **Sampling Design ERiK-Survey 2022: Pedagogical Staff (for two example states)**

Pedagogical Staff	Bavaria	Saarland	Germany
Size of the population in 2021 (N)	88,551	6,238	583,888
Number of centres in 2021	9,309	473	57,556
Size of the population per centre in 2021	10	13	11
Sample sizes needed (z=1.96, moe=0.05, p=0.5)	384	362	6,098
Sample sizes needed +5 % (Covid-19 pandemic)	404	381	6,419
Gross sample needed in 2022 (approx. combination of participation and DIR-distribution probability of 2020)	1,602	1,988	40,798
Centres needed in 2022 (= DIR gross)	1,078	888	19,814
Centres needed in 2022 (= DIR gross, corrected for >100 %)	1,078	473	17,992
Share gross needed / size of the population (N)	2	32	16
Share centres needed (corrected for >100 %) / number of centres	12	100	31
Number of questionnaires per institution:			
X questionnaires (Q) needed per centre (round down)	1	4	2
Centres with x Q	555	377	9,272
Centres with x+1 Q	523	96	8,722
Centres with 1 PST Q	555	0	2,868
Centres with 2 PST Q	523	0	10,583
Centres with 3 PST Q	0	0	2,324
Centres with 4 PST Q	0	377	1,370
Centres with 5 PST Q	0	96	766
Centres with 6 PST Q	0	0	80
Mode:			
Paper and online questionnaire (80 %)	1,281	1,590	32,638
Only online questionnaire (20 %)	320	398	8,160

Note: Abbreviation: DIR: directors; PST: pedagogical staff; Q: questionnaire(s); n: sample size; N: population size; z: permissible error probability; moe: margin of error; p: expected proportion value of a parameter. Due to rounding some sums may not add up perfectly.

For example, in Bavaria, there are 1,078 day-care centres that should be contacted according to the directors' surveys. In 555 of these centres, only one pedagogical staff member is to be contacted and in 523 centres, two pedagogical staff members are to be contacted. This results in a total of 1,601 questionnaires to be distributed to pedagogical staff, as previously calculated.<sup>33</sup> To reach the required gross sample sizes in smaller federal states each centre will be asked to contact more staff members. For example, in Saarland 377 centres will have to contact four pedagogical staff members each and 96 will have to contact five each.

When there are more pedagogical staff in a centre than should be contacted according to our design, as is usually the case, the directors are asked to randomise the distribution by forwarding the questionnaires to the staff members

whose birthdays was the most recent. This new distribution approach in the ERiK-Survey 2022 should reduce the arbitrary selection of pedagogical staff by directors. If the number of staff members to be contacted is greater than or equal to the number of pedagogical staff in the centre, a questionnaire should be forwarded to each of the existing pedagogical staff.

**About 80 % of pedagogical staff receive both paper and online questionnaires, while 20 % receive only the online questionnaire.**

The survey mode options for directors and their pedagogical staff were identical in each centre to facilitate questionnaire dissemination by the directors. Thus, the mode distribution for pedagogical staff is also 80 % with both paper and online options and 20 % with only online questionnaires.

In summary, the sampling design for the ERiK-Survey 2022 of pedagogical staff resulted in a stratified two-stage clustered sample, where the day-

<sup>33</sup> The minimal difference to the number of 1,602 depicted in Table 5.1-2 is due to rounding in previous steps.



care centres are the clusters and the federal states are the strata. From this sampling design which aims to distribute 40,798 questionnaires, we expect to reach our targeted net sample of  $n=6,419$  pedagogical staff members.

## 5.2 Sampling Design for Youth Welfare Offices and Family Day-Care Workers

This section explains the sampling design for youth welfare offices as well as the indirect sampling design for family day-care workers that is dependent on the youth offices.

The sampling design for the ERiK-Survey 2022 of youth welfare offices aims to survey enough youth offices to allow generalisable statements at the federal state level. The sampling design did not change compared to the ERiK-Surveys 2020 (see Schacht et al. 2021) but is based on a more thorough analysis of the necessary sample size:

As with the previous two populations, we first calculated the net sample size needed to make generalisable statements about youth welfare offices in the federal states (e.g. 77 in Bavaria).<sup>34</sup> Likewise, a 5 % buffer was added on top of the calculated required net sample sizes in the states (resulting in 81 in Bavaria). Taking the response rates of the ERiK-Surveys 2020 in the federal states into account, we calculated the gross samples needed for each state. However, these resulting gross samples were larger than the number of existing youth offices in all states. For example, in Bavaria the calculated gross sample was 123, while the number of existing youth offices was only 96. Thus, ERiK contacted all 575 youth welfare offices in the sampling frame, making the sampling design a complete survey of the target population, as it was in the ERiK-Surveys 2020.<sup>35</sup> The calculations used are depicted in Table 5.2-1 and in Table A.0-6 in the appendix.

### Complete population survey of all youth welfare offices as in 2020

The difference between the necessary sample size and the number of existing youth offices means

that we have to strive for increased participation rates or allow for greater uncertainty in our data analyses. To make participation as convenient as possible, all youth offices will receive a paper questionnaire via post as well as a link to an online questionnaire and can thus choose their preferred mode which should increase the response rate (see e.g. Dykema et al. 2013; Olson/Smyth/Wood 2012).

### All youth welfare offices receive a paper and online questionnaire.

In this complete population survey of youth welfare offices, the number of surveyed youth offices per state ranges from 2 in Bremen to 186 in North Rhine-Westphalia. From these totals and the response rate of the ERiK-Survey 2020, we expect a total net sample of 381 youth offices in the ERiK-Survey 2022.

The sampling design for family day-care workers is similar to that of the ERiK-Survey 2020 and the design for pedagogical staff: The ERiK project employed an indirect sampling strategy because a complete sampling frame does not exist (see Section 4.2). Since direct contact with family day-care workers is therefore not possible, the youth offices that have their contact information will be asked to distribute the questionnaire for the ERiK-Survey 2022 to family day-care workers. In contrast to the ERiK-Surveys 2020, our considerations – as outlined in this section – eventually resulted in a complete population survey of family day-care workers.

As the number of responding family day-care workers was too small in many federal states in the ERiK-Survey 2020, we increased the gross samples substantially to enable generalisable statements on the federal state level. The basis for the decision on the sample size was again the calculation according to Formula 5.1<sup>36</sup> in Section 5.1 which resulted in 346 cases in Bavaria and 4,446 in total. Adding the same 5 % Covid-19-related buffer on top, these required net sample sizes ranged from 134 in Saxony-Anhalt to 404 in North Rhine-Westphalia and resulted in  $n=4,680$  in total (see Table 5.2-2 for the calculations in the two example states and Germany as a whole).

<sup>34</sup> To this end, we again used Formula 5.1 as described in the previous Section 5.1.

<sup>35</sup> As mentioned in Section 3.4, it turned out that seven district youth offices in Hamburg could not answer the questionnaires but only the state youth office, which results in a reduced  $N$  of 569.

<sup>36</sup> As in the calculations for directors and pedagogical staff, we employed Formula 5.2 when the sample size in a state was smaller than 5 % of the population in the state. For the ERiK-Survey 2022 of family day-care workers, this was only the case in North Rhine-Westphalia.

Table 5.2-1: **Sampling Design ERIK-Survey 2022: Youth Welfare Offices (for two example-states)**

Youth Welfare Offices	Bavaria	Saarland	Germany
Size of the population in 2021 (N)	96	6	575
Sample sizes needed (z=1.96, moe=0.05, p=0.5)	77	6	474
Sample sizes needed + 5 % (Covid-19 pandemic)	81	6	499
Gross sample needed in 2022	123	9	752
Share gross needed / size of the population (N)	129	156	131
Gross needed in 2022 (corrected for >100 %)	96	6	575
Sample sizes to expect (corrected for gross / share n 2020)	63	4	381
Mode:			
Paper and online questionnaire	96	6	575
Only online questionnaire	0	0	0

Note: Abbreviations: n: sample size; N: population size; z: permissible error probability; moe: margin of error; p: expected proportion value of a parameter.

In the next step, the response rates in the federal states of the ERIK-Survey 2020 were taken into account to calculate the gross sample sizes necessary for each state. The resulting gross sample for Germany was n=25,842 in total.

However, in ten out of the 16 federal states the calculated gross sample exceeded the number of existing family day-care workers. In these cases the population size was used instead of the originally calculated gross number, which resulted in a reduced gross sample of n=20,457 (for the complete calculations of all federal states see Table A.0-5 in the appendix).<sup>37</sup>

#### **Complete population survey of all family day-care workers (around 44,700)**

Beyond these calculations, additional considerations were relevant: First, in order to improve the multiperspectivity in combination with the youth office survey, the ERIK team will ask all youth offices to distribute questionnaires to family day-care workers. Second, we decided to implement a simple forwarding process for the youth offices to avoid selectivity<sup>38</sup> at this stage. Therefore, each youth office will be asked to contact all of its family day-care workers, thus relieving the youth offices of the burden of drawing random samples. To further facilitate the forwarding process and thereby increase the willingness to

cooperate, each youth office will contact all its family day-care workers using the same mode. As a consequence, all youth offices will be asked to forward questionnaires to all family day-care workers in their respective districts, making this a complete population survey.

The youth offices in the federal states (and thus in extension, the family day-care workers in their districts) of our calculated gross sample (n=20,457) were randomly assigned to the first three distribution/mode options; the remaining 24,325 family day-care workers were allocated to option four. For a detailed description of the four mode options see Section 6.2. A brief overview is also depicted in Table 5.2-2. In relation to the total number of family day-care workers to be contacted, the allocation to the different options translates into 3 % having the choice between online and paper questionnaires, while 97 % can only participate online.

**About 3 % of family day-care workers receive paper and online questionnaires, while 97 % receive only the online version.**

Overall, these considerations resulted in a complete population survey whereby all youth offices (575)<sup>39</sup> are asked to forward questionnaires to all family day-care workers (about 44,700). From this, we expect a net sample of about 7,800 family day-care workers.

<sup>37</sup> This means that we have to increase the response rates or the rate with which the youth offices forward the questionnaires to family day-care workers in these states.

<sup>38</sup> For example, youth offices with less (technical) resources might be overstrained with the drawing of a random sample or differing forwarding modes and thus refuse to forward materials to family day-care workers completely.

<sup>39</sup> Due to the decentralized organisation of the youth welfare offices in Hamburg, the central administration in the state youth welfare office will answer the 2022 questionnaire on behalf of the seven district youth welfare offices. However, the latter will continue to be asked to forward the documents to the relevant persons as part of the survey of family day-care workers.



Table 5.2-2: **Sampling Design ERIK-Survey 2022: Family Day-Care Workers (for two example states)**

Family Day-Care Workers	Bavaria	Saarland	Germany
Size of the population in 2021 (N)	3,425	270	44,782
Number of youth welfare offices in 2021	96	6	575
Size of the population per YWO 2021	36	45	78
Sample sizes needed (z=1.96, moe=0.05, p=0.5)	346	159	4,446
Sample sizes needed + 5 % (Covid-19 pandemic)	364	167	4,680
Gross sample needed in 2022 (approx. participation probability 2020)	2,025	3,232	25,842
YWO needed in 2022 (approx. YWO distribution probability 2020)	57	72	524
Share gross needed / size of the population (N)	59	1,197	58
Share YWO needed / number of YWO	59	1,197	91
Gross needed in 2022 (corrected for >100 %)	2,025	270	20,457
YWO needed in 2022 (approx. Distribution probability 2020, corrected for >100 %)	57	6	298
Sample sizes to expect (corrected gross / share n 2020)	364	14	3,385
Mode:			
Option 1 YWO: Paper and online questionnaire (5 %)	1	1	16
Option 2 YWO: Only online questionnaire (by post) (49 %)	27	3	146
Option 3 YWO: Only online questionnaire (via e-mail) (45 %)	27	2	134
Option 4 YWO: Only online questionnaire (via e-mail) (supplement)	41	0	279
Option 1 FDW: Paper and online questionnaire (7 %)	36	45	1,365
Option 2 FDW: Only online questionnaire (by post) (49 %)	963	135	10,097
Option 3 FDW: Only online questionnaire (via e-mail) (44 %)	963	90	8,938
Option 4 FDW: Only online questionnaire (via e-mail) (supplement)	1,400	0	24,325
Sample sizes of FDW to expect ((corrected gross / share n 2020)+ option 4)	615	14	7,791

Note: Abbreviations: YWO: youth welfare office(s); FDW: family day-care worker(s); n: sample size; N: population size; z: permissible error probability; moe: margin of error; p: expected proportion value of a parameter.

### 5.3 Sampling Design for Providers of Childcare

This section presents the sampling design for providers of childcare centres in the ERIK-Survey 2022. The design did not change substantially compared to the ERIK-Survey 2020 and is again a complete survey of the known population. Table 5.3-1 provides an overview of all calculations and design decisions explained in the following.

As with the other populations, we first calculated the net sample sizes needed to make generalisable statements regarding the federal states<sup>40</sup> and added the same 5 % buffer on top. Based on that total and the response rates in the 16 federal states in the ERIK-Surveys 2020, we computed the gross samples needed for each federal state. However, in all but three states (Baden-Württemberg, Bavaria and North Rhine-Westphalia) the gross sample needed was larger than the number of providers existing in the state. For example, as depicted

in Table 5.3-1, the respective necessary gross samples would signify a share of 54 % of the population in Bavaria (gross n=2,446 out of N=4,570), but 558 % of the population in Saarland (gross n=547 out of N=98).<sup>41</sup> This makes it impossible to contact the necessary number of providers in the 13 affected states. Taking this limitation into account, the number of gross cases decreased from 33,884 to 18,978.

#### Complete population survey of all providers of day-care centres (around 21,600)

As stated in Section 4.4, the sampling frame for the ERIK-Survey 2022 includes around 21,600 providers. These are substantially more providers than the 14,868 cases contained in the sampling frame of the ERIK-Survey 2020 (Schacht et al. 2021). However, as already mentioned in the previous methodological reports and Section 4.4, the

40 With the same formula as for the other populations (see Section 5.1).

41 In the ERIK-Survey 2020, the response rate was low, ranging from 8 to 20 % in the federal states (13 % overall). Thus, the only option to achieve the required sample sizes in the smaller states was to increase the response rates compared to the ERIK-Survey 2020.

Table 5.3-1: **Sampling Design ERIK-Survey 2022: Providers of Childcare Centres (for two example states)**

Providers	Bavaria	Saarland	Germany
Size of the population 2021 (N)	4,570	98	21,624
Sample sizes needed ( $z=1.96$ , $moe=0.05$ , $p=0.5$ )	354	78	4,069
Sample sizes needed + 5 % (Covid-19 pandemic)	373	82	4,284
Gross sample needed in 2022	2,446	547	33,884
Share gross needed / size of the population (N)	54	558	157
Gross needed in 2022 (corrected for >100 %)	2,446	98	18,978
Sample sizes to expect (corrected for gross / share n 2020)	373	15	2,524
Mode:			
Paper and online questionnaire (5 %)	229	5	1,081
Only online questionnaire (95 %)	4,342	93	20,543

Note: Abbreviations: n: sample size; N: population size; z: permissible error probability; moe: margin of error; p: expected proportion value of a parameter. Due to rounding some sums may not add up perfectly.

sampling frame may be biased due to coverage error. As there is currently no way to assess the quality of the new sampling frame (e. g. there is no register of providers in Germany), a complete survey of providers will be conducted. Therefore, contrary to previous calculations, the gross sample size for the ERIK-Survey 2022 of providers was increased to 21,600 cases (a complete population survey in all federal states).

**About 5 % of providers receive paper and online questionnaires, while 95 % receive only the online questionnaire.**

As in the ERIK-Survey 2020, we included a method test: About 5 % (approx. 1,100) of the gross sample in each state were randomly selected and will receive a paper questionnaire and a link for the online version of the questionnaire by post. The other 95 % (approx. 20,500) will also be invited to participate by post but only have the option of responding online (see Section 6.3).

All in all, the sampling design for the ERIK-Survey 2022 of providers is a complete population survey with a gross sample of 21,624 cases. Based on the providers' response rate during the ERIK-Surveys 2020 we expect this design to yield about 2,500 net cases.

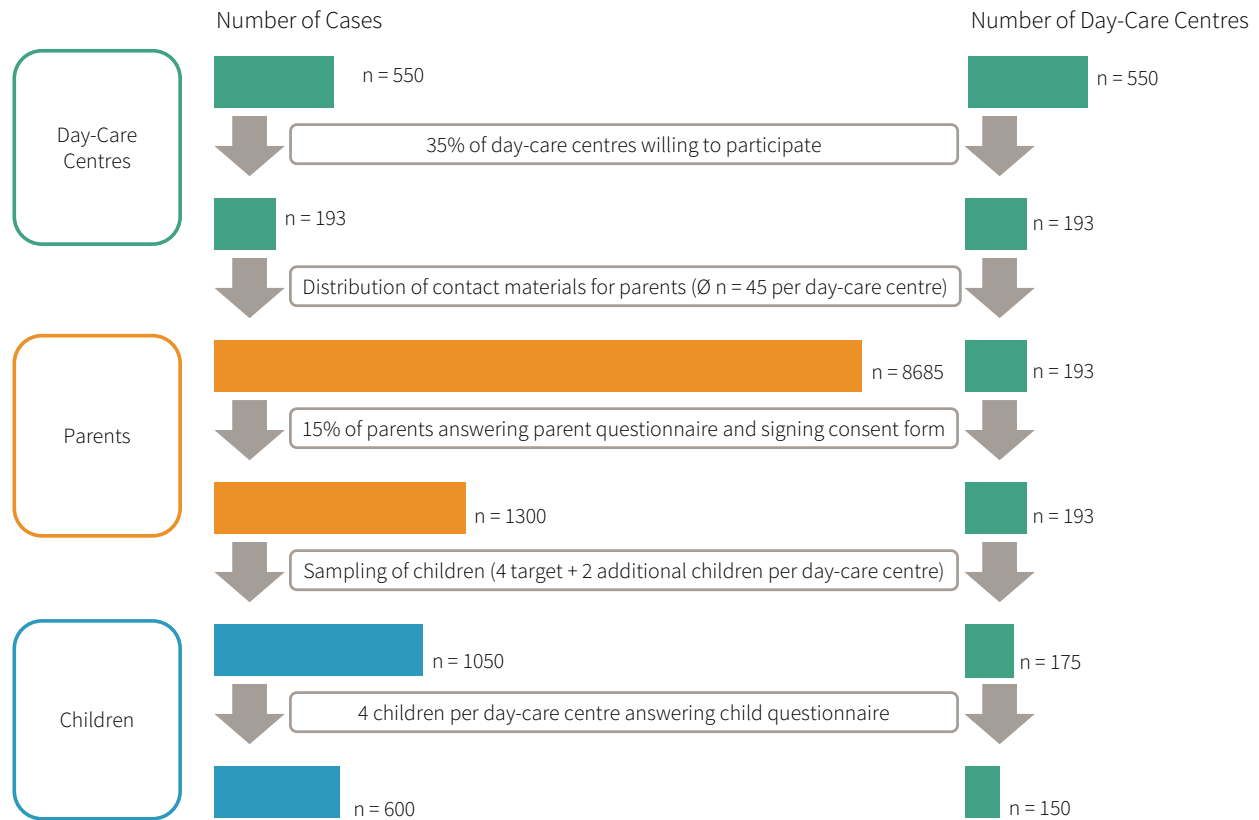
## 5.4 Sampling Design for Children in Day-Care

In the ERIK-Survey 2022 of children, a two-stage sampling design will be applied (see Figure 5.4-1).

First, day-care centres will be sampled. As mentioned previously, the sampling frame comprised  $n=1,850$  day-care centres. From these, a sample of  $n=550$  day-care centres will be drawn in proportion to the distribution of children aged three to five years stratified by federal state and the categorised size of the municipality. This total was, based on previous experience of the survey institute, assumed to be necessary to realise a net sample of 150 day-care centres where child interviews can be conducted. The sampling process is planned for January 2022.

### Two-stage sampling design applied in the ERIK-Survey 2022 of children

In March 2022, the sample of day-care centres will be contacted and their directors asked to answer a short questionnaire and to pass on contact materials to parents of children aged four years or older and not yet attending school. On average, day-care centres will receive 45 envelopes of contact materials for parents. Additional copies may be printed by directors or staff of the centres if the number of parents of children belonging to the target population exceeds the number of envelopes provided. Families with two or more children meeting the conditions to take part in the study (aged four years or older, attending the specific day-care centre and not attending school yet) will only receive one envelope. In this case, parents will be asked to refer to the youngest child meeting the conditions when answering the parent questionnaire and giving consent for the child to be interviewed.

Figure 5.4-1: **Sampling Design ERiK-Survey 2022: Children**

**The ERiK-Survey 2022 of children aims for 600 child interviews in 150 day-care centres.**

Following the parental survey, the sample of children will be drawn from all children whose parents completed the parent questionnaire and consented to their child being interviewed. It has to be considered that children are clustered in day-care centres. In order to increase diversification across day-care centres, the number of child interviews per day-care centre is limited

to four. Targeting a net sample of  $n=600$  child interviews, we consequently aim to conduct interviews with an average of four children in 150 day-care centres. Six children will be selected randomly per day-care centre. The aim is to interview four children while two additional children will be chosen to compensate for target children being absent or unwilling. The sampling of children will take place in April 2022; the child interviews will be conducted from May to July 2022.



## 6. Contacting and Survey Designs

This chapter explains the design choices for contacting target populations and samples during the ERiK-Surveys 2022. It describes the contact materials that the sampled individuals or institutions received, the contacting sequence, reminders and incentivisation. The contact materials are available online in the DJI-FDZ (<https://surveys.dji.de/>).

Carefully designed contact strategies are especially important in view of the general trend towards decreasing response rates (Beullens et al. 2018; Brick/Williams 2013; Leeuw/Heer 2002; Dixon/Tucker 2010; Kreuter 2013; Stedman et al. 2019). Shorter questionnaires (see Section 8.2) and increased fieldwork efforts may potentially help to counteract this trend and increase successful contact and response rates (Vehovar/Beullens 2018).

Table 6.0-1 gives an overview of the survey designs of the ERiK-Surveys 2020 and 2022. While there might be some changes to the implementation, most of the important considerations for the ERiK-Surveys 2020 still apply to the survey design of the ERiK-Surveys 2022:

- › Many respondents will still be able to choose between answering the questionnaire on paper or online (although the shares might have changed).
- › The directors and youth offices will again be asked to forward the questionnaires to pedagogical staff and family day-care workers in the ERiK-Surveys 2022.

gical staff and family day-care workers in the ERiK-Surveys 2022.

- › As in the ERiK-Surveys 2020, we planned to conduct nonresponse surveys of directors and providers.

One major change is that we did not plan a tranche concept for the ERiK-Surveys 2022 due to the experiences from the ERiK-Surveys 2020 and the shorter field period, thus starting the survey of all respondents simultaneously in 2022.<sup>42</sup> The fieldwork for the ERiK-Surveys 2022 was scheduled for the period between January and April. This simultaneous period was chosen to reduce seasonal influences on responses across populations and to fit the BMFSFJ reporting schedule and requirements. It also avoids potential day-care centre closures in the summer holidays. As in the ERiK-Surveys 2020, we will offer pre- and post-incentives to potential respondents, though the incentive scheme differs in the ERiK-Surveys 2022.

We used the experiences gained during the ERiK-Surveys 2020 to improve the contacting of the ERiK target populations. This required only minor changes, which are explained in the following sections for the different populations.

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<sup>42</sup> This does not apply to the survey of parents, as it is part of the KiBS project that does employ tranches.

Table 6.0-1: Survey Design for the ERiK-Surveys 2020 and 2022

	Directors		Pedagogical Staff		Family Day-Care Workers		Youth Welfare Offices		Providers	
	2020	2022	2020	2022	2020	2022	2020	2022	2020	2022
Field period	Apr.-Aug.	Feb.-Apr.	Apr.-Aug.	Feb.-Apr.	May-Sep.	Jan.-Mar.	May-Sep.	Jan.-Mar.	May-Sep.	Jan.-Mar.
Tranches	X	-	X	-	X	-	X	-	X	-
(Gatekeeper) advertisement	-	X	-	X	X	X	X	X	X	X*
Contact materials	X	X*	X	X*	X	X*	X	X*	X	X*
Reminder by post	X	X	X	X	X	X	X	X	X	X
Reminder by e-mail	-	-	-	-	X	X	X	X	-	X
Telephone contact/reminder	X	X	-	-	-	-	X	X	X	X
Pre-incentives	X	X	X	X	-	X	-	-	-	-
Post-incentives	X	X	-	-	X	X	-	-	-	-
Method tests (mode and (in)direct contacting)	X	X	X	X	X	X	X	X	X	X
Nonresponse survey	X	X	-	-	-	-	-	-	X	X

Note: X implemented; – not implemented; X\* changes implemented (more outreach/advertisement for the ‘(gatekeeper) advertisement’ and linguistic/graphic revisions of the contact materials).

## 6.1 Contacting of Directors of and Pedagogical Staff in Day-Care Centres

The ERiK-Survey 2022 of directors and pedagogical staff in day-care centres will be conducted by the infas Institute for Applied Social Sciences between 2 February and 17 April 2022. The survey duration was calculated to be one month shorter for the ERiK-Surveys 2022 because fewer pandemic-related challenges in field access and fieldwork were expected to occur than in 2020.

Because the survey period in the ERiK-Surveys 2022 is shorter, no tranche concept like in the ERiK-Surveys 2020 is planned. Instead the drawn sample of day-care centres will be contacted simultaneously.

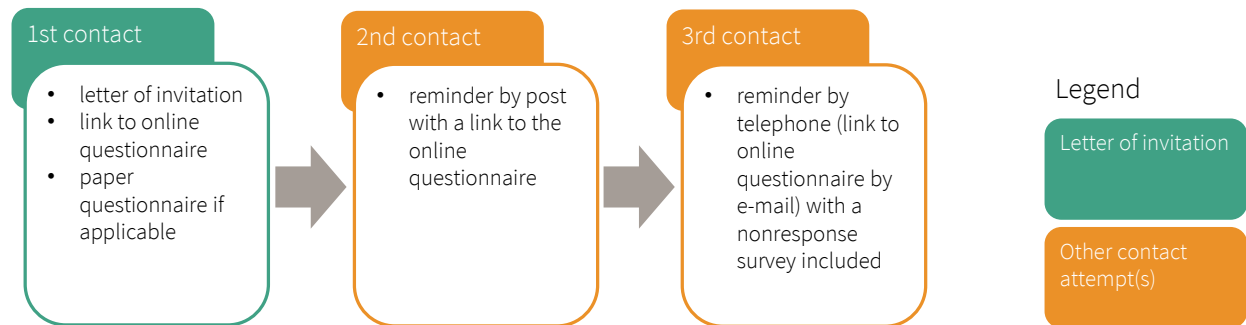
In order to raise awareness about the upcoming ERiK-Surveys 2022, the ERiK project asked representatives of the federal states and experts in the field of early childhood education and care for support in promoting the surveys. To announce the ERiK-Surveys 2022, the study will be presented in the most frequently distributed German journal for pedagogical staff ‘Kindergarten heute’ and its journal edition especially for directors of day-care centres ‘Kindergarten heute: Das Leitungsheft’ at the beginning of 2022. Furthermore, the website of the ERiK project will be updated to inform about the start of the ERiK-Surveys 2022.

**An indirect sampling design within day-care centres will be used.**

As in the ERiK-Surveys 2020, an indirect sampling design for pedagogical staff will be used: Directors will receive invitation letters asking them to fill in their questionnaires and to forward one to six questionnaires to the pedagogical staff in the day-care centre (number depending on the federal state, see Section 5.1). They will also be asked to forward reminders to the pedagogical staff. Thus, each of the presented field contacts in Figure 6.1-1 will address directors directly and pedagogical staff in day-care centres indirectly through the directors.

**Up to four fieldwork contacts: invitation letter, postal reminder, telephone reminder, thank-you card**

For the initial contact, a postal delivery is planned for 2 February 2022 that addresses the director of the day-care centre. This delivery will include letters of invitation and a questionnaire for the director as well as a prepaid return envelope (if applicable: depending on the randomly assigned questionnaire mode, see Section 5.1). It will moreover contain an ERiK information brochure, information on the ERiK data protection regulations and a small pre-incentive. As in the ERiK-Surveys 2020, directors will furthermore re-

Figure 6.1-1: **Contact Sequence: Directors and Pedagogical Staff**

ceive letters of support from the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ) and the Federal Association of Non-Statutory Welfare (in German: Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege e.V., BAGFW).

As already mentioned, the initial delivery will also include the envelopes for the pedagogical staff. These envelopes will contain the same materials as the ones for directors except for the letters of support and the pre-incentives.

#### Improved invitation letters compared to the ERiK-Surveys 2020

The contact materials from the ERiK-Surveys 2020 were reviewed and updated for the ERiK-Surveys 2022. Especially the initial letters were made more concrete by revising the descriptions of the target populations (see Section 3.1 and Section 3.2). Furthermore, the initial letters were revised linguistically and graphically because empirical evidence indicates that initial letters have an impact on survey participation (Greenberg/D. Dillman 2021). By way of illustration, the invitation letters of the ERiK-Surveys 2020 (top) and 2022 (bottom) for directors are depicted in Figure 6.1-2 and show for example the small pictograms added for 2022.

If no director or fewer than the sampled pedagogical staff members of a day-care centre have taken part in the ERiK-Surveys 2022 by the middle of February, the director will be sent a postal reminder. These reminders will include the invitation to the director to participate and to remind the pedagogical staff in the day-care centre to participate. In order to ease participation the reminder will again include an online access code for the directors survey. Further access codes for

the online questionnaire of the pedagogical staff can be requested if necessary.

If day-care centres still have not participated completely (director and at least one member of the pedagogical staff) by the end of February, directors will be reminded a second time by telephone (if a telephone number is available). As in the postal reminder, directors will be asked to fill in the questionnaire and to forward the invitation to the pedagogical staff. The option of sending further access codes will once again be offered for the online questionnaires if necessary. For this purpose, an e-mail address will be requested during the telephone call.


#### A nonresponse survey of directors will be integrated into the phone reminder.

If reminded directors decline to participate in the ERiK-Survey 2022, they will be asked to answer a few questions about the reasons for their non-participation during this call (ERiK-Surveys 2022: Nonresponse survey of directors). In order to improve participation in the ERiK-Surveys 2022 and the nonresponse survey of directors, the telephone reminder is planned for a duration of six to seven weeks until one week before the end of the survey period. The questions in the nonresponse survey of directors are based on the ones used in 2020 with only two additional questions that relate to previous participation in the ERiK-Surveys 2020.

As the usage of incentives is shown to increase response rates (Church 1993), day-care centres will receive small non-monetary pre-incentives regardless of whether or not they participate (herb and vegetable seeds; worth between one and three euros; depending on the required number



Figure 6.1-2: Comparison of Invitation Letters for the ERIK-Surveys 2020 and 2022: Directors and Pedagogical Staff



Infas, Postfach 240101, 53154 Bonn

\*7135/LFD\*

Name Kita  
An die Einrichtungsleitung  
Anschrift  
PLZ Ort

Bonn, April 2020

**Bundesweite Befragung von Leitungskräften und pädagogischem Personal**

Sehr geehrte Dame, sehr geehrter Herr,

Im Auftrag des Deutschen Jugendinstituts (DJI) führt das Infas Institut für angewandte Sozialwissenschaft eine wissenschaftliche Befragung in Kindertageseinrichtungen durch. Diese Befragung ist Teil einer Studie zur Entwicklung von Rahmenbedingungen in der Kindertagesbetreuung (kurz „ERIK“), die vom Bundesministerium für Familie, Senioren, Frauen und Jugend gefördert und finanziert wird. Nicht zuletzt die Corona-Pandemie macht deutlich, welchen wichtigen Stellenwert die Kindertagesbetreuung in Deutschland hat. Wir bitten Sie daher ganz herzlich, uns bei dieser Studie zu unterstützen, denn nur so können wir mehr über die Situation in der Kindertagesbetreuung im Allgemeinen sowie im Hinblick auf die aktuellen Herausforderungen der Corona-Krise erfahren.

**Worum geht es genau?**

Das am 01.01.2019 in Kraft getretene Gute-Kita-Gesetz verfolgt das Ziel, die Qualität der Kindertagesbetreuung weiter zu verbessern. Um die Rahmenbedingungen für gute Qualität in der Kindertagesbetreuung zu beobachten, wurde die ERIK-Studie ins Leben gerufen. In diesem Zusammenhang finden bundesweite Befragungen unterschiedlicher Akteure und Institutionen der Kindertagesbetreuung statt. Unser Vorhaben wird u.a. von der Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege ausdrücklich unterstützt.

**Warum wenden wir uns an Ihre Einrichtung?**


Nach einem statistischen Zufallsverfahren wurden in ganz Deutschland Einrichtungen der Kindertagesbetreuung ausgewählt. Auch Ihre Einrichtung gehört dazu. Ziel der ERIK-Studie ist es, die verschiedenen Perspektiven auf die regional sehr unterschiedlichen Voraussetzungen in der Kindertagesbetreuung zu erfassen. Ihre Angaben sind daher für die Studie „ERIK“ von größter Bedeutung. Ihre Teilnahme ist selbstverständlich freiwillig. Aus der Nicht-Teilnahme entstehen Ihnen keine Nachteile.

**Worum bitten wir Sie als Leitung?**


Wir wären Ihnen sehr dankbar, wenn Sie (bzw. die Fachkraft in Ihrer Einrichtung, die den höchsten Anteil an Leitungsaufgaben wahrnimmt) den **Fragebogen für Leitungen** sowie die Fragen zur aktuellen Situation im Hinblick auf die Corona-Pandemie beantworten. Dies geht am einfachsten online unter:

<<URLCAWI>>


Bitte nutzen Sie dazu Ihr individuelles Passwort: <<PWDCAWI>>



Gefördert vom:



Durchgeführt von:



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Alternativ zu dem Online-Fragebogen haben Sie auch die Möglichkeit, den beiliegenden schriftlichen Fragebogen auszufüllen und diesen innerhalb der nächsten 4 Wochen im ebenfalls beiliegenden portofreien Rückumschlag an das Infas-Institut zurückzusenden.

**Was hat es mit den beiliegenden Umschlägen für „Pädagogisches Personal“ auf sich?**

Die ERIK-Studie sammelt Daten und Einschätzungen aus ganz unterschiedlichen Perspektiven. Für uns sind daher auch die Angaben des pädagogischen Personals besonders spannend und wichtig. Bitte übergeben Sie die beiliegenden **Umschläge für das pädagogische Personal** zur Bearbeitung und zur eigenständigen Rücksendung an 5 ihrer Mitarbeiterinnen und motivieren Sie sie zur Teilnahme.

Versuchen Sie dabei, dass die Vielfalt und Unterschiedlichkeit des pädagogischen Personals in Ihrer Einrichtung möglichst gut abgebildet wird. Sowohl teilzeitbeschäftigte als auch vollzeitbeschäftigte Fachkräfte, sowohl Festangestellte als auch Auszubildende, sowohl lange der Einrichtung zugehörige als auch erst seit Kurzem dort tätige Personen und sowohl jüngere als auch ältere Mitarbeiterinnen dürfen einen Fragebogen erhalten.

Bitte nehmen Sie keine Einsicht in ausgefüllte Fragebögen des pädagogischen Personals. Die Fragen des Fragebogens können Sie im Internet unter [www.dji.de/erik](http://www.dji.de/erik) einsehen.

**Erhält Ihre Einrichtung etwas für die Teilnahme?**

Als Dankeschön hat Ihre Einrichtung jetzt schon eine kleine Auswahl an Kräutern und Gemüsesamen für Ihren („Fensterbrett“-)Garten erhalten. Allen teilnehmenden Einrichtungen schicken wir im Anschluss an die Befragung ein Mini-Garten-Set mit vielen weiteren tollen Kräutern- und Gemüsesorten.

**Wie steht es mit dem Datenschutz?**

Selbstverständlich werden alle Regeln des deutschen Datenschutzes und der EU-DSGVO eingehalten. Es ist absolut sichergestellt, dass alle Ihre Angaben streng vertraulich behandelt werden. Die veröffentlichten Ergebnisse lassen keinen Rückschluss auf einzelne Personen oder Einrichtungen zu. Wir versichern, dass mit dieser Studie in keiner Weise einzelne Einrichtungen bewertet werden. Der Datenschutz wird ausführlich erklärt auf dem beiliegenden Blatt: „Erklärung zum Datenschutz und zur absoluten Vertraulichkeit Ihrer Angaben“.


**Informationen zur Studie**

Haben Sie Fragen oder Rückmeldungen oder wünschen Sie nähere Informationen zur Studie, so steht Ihnen zu den üblichen Bürozeiten unter der kostenfreien Rufnummer **0800/73 84 500** ein Mitarbeiter oder eine Mitarbeiterin von infas zur Verfügung. Gerne können Sie sich auch per E-Mail ([erik@infas.de](mailto:erik@infas.de)) an uns wenden. Wir werden Ihre Anfrage so zügig wie möglich bearbeiten.

Weitere Informationen zum Gute-Kita-Gesetz und zur ERIK-Studie finden Sie im beiliegenden Flyer oder auf der Studienhomepage unter: [www.dji.de/erik](http://www.dji.de/erik)

Wir bedanken uns schon heute recht herzlich für Ihre Mitwirkung an dieser außerordentlich wichtigen Studie. Bleiben Sie und Ihr Team gesund!

Mit freundlichen Grüßen



Infas, Postfach 240101, 53154 Bonn

\*7135/LFD\*

Name Kita  
An die Einrichtungsleitung  
Anschrift  
PLZ Ort

Bonn, Januar 2022

**ERIK: Bundesweite Befragung von Leitungskräften und pädagogischem Personal**

Sehr geehrte Einrichtungsleitung,

wir möchten Sie herzlich einladen, Ihre Erfahrungen und Einschätzungen zur Kindertagesbetreuung mit uns zu teilen.

Unsere Befragung ist Teil einer wissenschaftlichen Studie zur Entwicklung von Rahmenbedingungen in der Kindertagesbetreuung (kurz: ERIK). Wir – das Deutsche Jugendinstitut und das Infas Institut für angewandte Sozialwissenschaft – befragen dazu Leitungskräfte und pädagogisches Personal in ganz Deutschland. Die Studie wird vom Bundesministerium für Familie, Senioren, Frauen und Jugend gefördert und finanziert.

Mit Ihren Informationen leisten Sie einen wichtigen Beitrag zum besseren Verständnis der Entwicklungen in der Kindertagesbetreuung. Bereits in 2020 haben wir dazu eine Befragung in Kindertageseinrichtungen durchgeführt. Wenn Sie damals auch teilgenommen haben, danken wir Ihnen nochmals ganz herzlich und hoffen, dass Sie uns nun erneut unterstützen.


**Worum geht es genau?**

Das am 01.01.2019 in Kraft getretene Gute-Kita-Gesetz verfolgt das Ziel, die Qualität der Kindertagesbetreuung weiter zu verbessern. Um die Rahmenbedingungen für gute Qualität in der Kindertagesbetreuung zu beobachten, wurde die ERIK-Studie ins Leben gerufen. In diesem Zusammenhang finden 2022 zum zweiten Mal bundesweite Befragungen unterschiedlicher Akteure und Institutionen der Kindertagesbetreuung statt. Unser Vorhaben wird u.a. von der Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege ausdrücklich unterstützt.


**Wie können Sie als Einrichtungsleitung an der Befragung teilnehmen?**

Wir wären Ihnen sehr dankbar, wenn Sie (bzw. die Person in Ihrer Einrichtung, die den höchsten Anteil an Leitungsaufgaben wahrnimmt) den **Fragebogen für die Einrichtungsleitung** beantworten.


Bei einer gleichwertig aufgeteilten Einrichtungsleitung bitten wir die Leitungsperson, die zuletzt (in diesem oder im vergangenen Jahr) Geburtstag hatte, den Fragebogen für Einrichtungsleitungen auszufüllen. Wenn Sie die Leitung mehrerer Einrichtungen innehaben, nehmen Sie bitte für jede angeschriebene Einrichtung an der ERIK-Befragung 2022 teil. Beziehen Sie sich bitte bei der Beantwortung des Fragebogens jeweils nur auf die im Anschreiben genannte Einrichtung.



Gefördert vom:



Durchgeführt von:



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Alternativ zu dem Online-Fragebogen haben Sie auch die Möglichkeit, den beiliegenden schriftlichen Fragebogen auszufüllen und diesen innerhalb der nächsten vier Wochen im ebenfalls beiliegenden portofreien Rückumschlag an das Infas-Institut zurückzusenden.

Ihre Teilnahme ist selbstverständlich freiwillig. Aus der Nicht-Teilnahme entstehen Ihnen keine Nachteile.

**Was hat es mit den beiliegenden Umschlägen für „Pädagogisches Personal“ auf sich?**

Die ERIK-Studie sammelt Daten und Einschätzungen aus ganz unterschiedlichen Perspektiven. Für uns sind daher auch die Angaben des pädagogischen Personals wichtig. Bitte übergeben Sie daher die beiliegenden **Umschläge für das pädagogische Personal** an [bdk] Ihrer pädagogisch tätigen MitarbeiterInnen. Für die Aussagekraft der Studie ist es wichtig, dass die Auswahl des pädagogischen Personals möglichst zufällig erfolgt. Um die TeilnehmerInnen für die Befragung möglichst zufällig auszuwählen, geben Sie bitte die Umschläge möglichst an die [bdk] KollegInnen, die zuletzt Geburtstag hatten.

Diese KollegInnen

- müssen pädagogisch tätig sein, aber
- dürfen nicht als Einrichtungsleitung beschäftigt sein und
- dürfen nicht ehrenamtlich in Ihrer Einrichtung tätig sein.

Aus datenschutzrechtlichen Gründen nehmen Sie bitte keine Einsicht in ausgefüllte Fragebögen des pädagogischen Personals.

**Erhält Ihre Einrichtung etwas für die Teilnahme?**

Als kleines Dankeschön hat Ihre Einrichtung jetzt schon eine kleine Auswahl an Kräutern und Gemüsesamen erhalten. Allen teilnehmenden Einrichtungen schicken wir im Anschluss an die Befragung außerdem ein Mini-Garten-Set mit vielen weiteren Kräutern- und Gemüsesorten.

**Hinweise zum Datenschutz**

Wir gewährleisten, dass alle Regeln des deutschen Datenschutzes und der EU-DSGVO eingehalten werden. Es ist sichergestellt, dass alle Ihre Angaben streng vertraulich behandelt werden und veröffentlichte Ergebnisse keinen Rückschluss auf einzelne Personen oder Einrichtungen zulassen. Es werden mit dieser Studie in keiner Weise einzelne Einrichtungen bewertet. Ausführliche Informationen entnehmen Sie bitte der beiliegenden „Erklärung zum Datenschutz und zur absoluten Vertraulichkeit Ihrer Angaben“.

**An wen können Sie sich bei Fragen wenden?**

Für Ihre Fragen, Rückmeldungen oder für nähere Informationen zur Studie stehen Ihnen zu den üblichen Bürozeiten Mitarbeiterinnen von infas telefonisch unter **0800/7384500** oder per E-Mail unter [erik@infas.de](mailto:erik@infas.de) zur Verfügung.





Weitere Informationen zur ERIK-Studie finden Sie im beiliegenden Flyer oder auf der Studienhomepage unter: [www.dji.de/erik](http://www.dji.de/erik)

Für den Erfolg der Studie ist Ihre Unterstützung entscheidend. Schon heute bedanken wir uns herzlich für Ihre Mitwirkung.

Mit freundlichen Grüßen

Dr. Nicole Klinkhammer  
Projektleiterin  
Deutsches Jugendinstitut e.V.

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Bereichsleiterin  
Infas Institut für angewandte Sozialwissenschaft GmbH



of pedagogical staff to participate, see Section 5.1). If a day-care centre participates<sup>43</sup> in the ERiK-Surveys 2022, it will receive a non-monetary post-incentive (a small garden set with further seeds; worth about eight euros) together with a thank-you card in May 2022. Thus, the ERiK-Surveys 2022 will offer participating day-care centres the same incentives as in the ERiK-Surveys 2020.

## 6.2 Contacting of Youth Offices and Family Day-Care Workers

The ERiK-Surveys 2022 of youth offices and family day-care workers are scheduled from 3 January to 31 March 2022. In contrast to the ERiK-Surveys 2020, the youth offices will not be contacted in several tranches due to the experiences of the first ERiK-Surveys and the shorter field period.

As in 2020, the youth offices will be closely monitored by the survey institute (SOKO Institute for Social Research and Communication) for at least three reasons. First, the participation is voluntary and the workload of the employees in youth office can be assumed to be rather high (especially during the Covid-19 pandemic). Hence it makes sense to put some effort into encouraging youth welfare offices to participate. Second, youth offices have a complex organisational structure of work areas and responsibilities. Finding the right contact person can be challenging. Third, the youth offices are asked to forward the questionnaires to the family day-care workers for which they need to be particularly motivated.

In order to inform the youth welfare offices about the upcoming ERiK-Surveys 2022 and to request their cooperation, the survey was presented and promoted to large city youth welfare offices at an event organised by the German Association of Cities (in German: Deutscher Städtetag) in October 2021. In addition, general information will be forwarded to the associations (in German: Verbände) participating in the ERiK expert panel (in German: Expertengremium) and the Federal Work Group for State Youth Welfare Offices (in German: Bundesarbeitsgemeinschaft Landesjugendämter, BAGLJÄ) in January 2022. General information about the surveys can also be found on the website [www.dji.de/erik](http://www.dji.de/erik).

Furthermore, advance letters were sent via e-mail in December 2021. In contrast to the ERiK-Survey 2020 in which the youth welfare offices received postal information letters in advance, the sending of e-mails is believed to increase flexibility, improve accessibility and reduce effort. We know from previous research that increased fieldwork, such as sending out advance letters, can increase response rates while decreasing non-contact rates (e.g. Vehovar/Beullens 2018). To reach the family day-care workers in a comparable form in advance as well, we will publish information about the upcoming survey in a professional journal for family day-care workers as we did in the context of the ERiK-Survey 2020. This is scheduled for February 2022.

Previous research shows that telephone contact in postal surveys can lead to a reduction in nonresponse (Nederhof 1988; D. A. Dillman 1991). Therefore, the contacting of all youth welfare offices via telephone is scheduled for the beginning of January 2022. Based on the experience gained during the ERiK-Surveys 2020, we considered it necessary to intensify the contacting of youth welfare offices. The aim is to reach all youth welfare offices within two weeks and to obtain the names and addresses of the persons responsible for participation in the survey at the respective youth office.<sup>44</sup> To ensure accessibility, the youth offices will be contacted on different days at different times with at least 15 contact attempts until termination.

**All youth offices will receive paper and online questionnaires.**

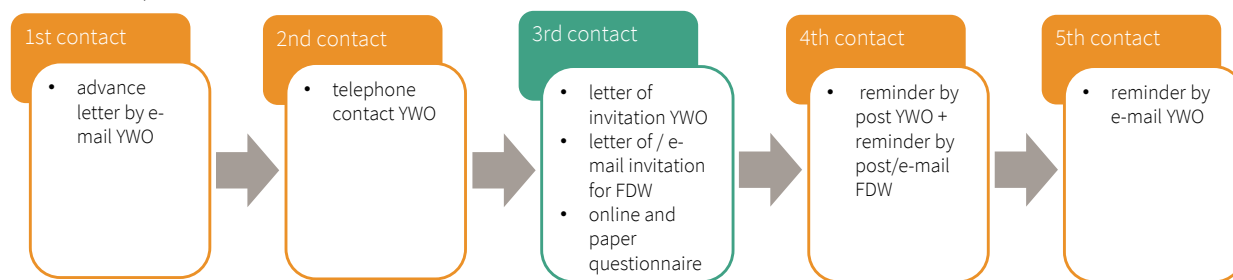
At the start of the field period, every youth office will be asked to fill in an online questionnaire (OQ) or a paper questionnaire (PQ). The letter of invitation for the youth offices contains, firstly, information on the project, a declaration on implementation of the survey, the paper version of the questionnaire as well as the link for the online questionnaire, a return envelope, letters of legitimation from the BMFSFJ as well as from the Federal Association of Municipal Umbrella Organisations (in German: Bundesverband der kommunalen Spitzenverbände) and information

<sup>43</sup> Participation of a day-care centre is defined as either the director or at least one member of the pedagogical staff participating.

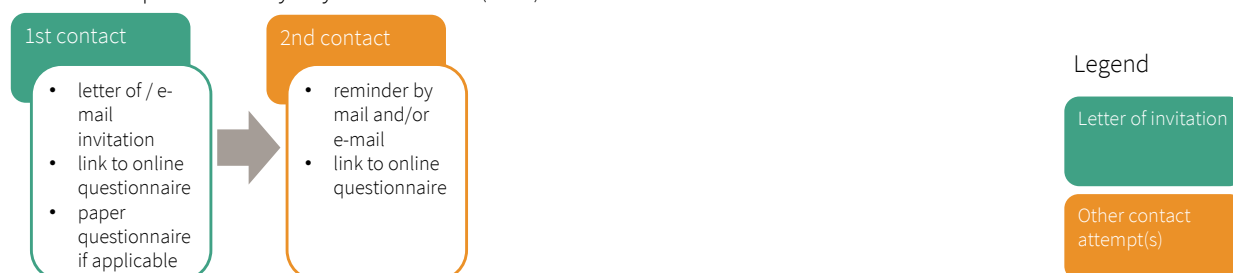
<sup>44</sup> The survey institute will first try to contact the same offices and persons within the youth office that were identified as the responsible actors in the ERiK-Survey 2020. But in general it is not known whether the persons answering the questionnaires in 2022 will be the same as in 2020.

Figure 6.2-1: **Contacting of Youth Offices and Family Day-Care Workers in the ERiK-Surveys 2022**

Contact Sequence: Youth Welfare Offices (YWO)



Contact Sequence: Family Day-Care workers (FDW)



on the ERiK data protection regulations. Secondly, the youth welfare offices receive forwarding instructions and the contact materials for the family day-care workers in their district. In order to maximize responses to the ERiK-Surveys 2022, all of the above materials were reviewed intensively, updated, revised linguistically and graphically and made more concrete. For example, small pictograms were added, similar to the ones displayed in Figure 6.1-2 for directors in the previous section.

**Family day-care workers will be contacted in four different ways: a complex design made more precise and simpler.**

We will apply four contact options for the distribution of questionnaires to the family day-care workers:

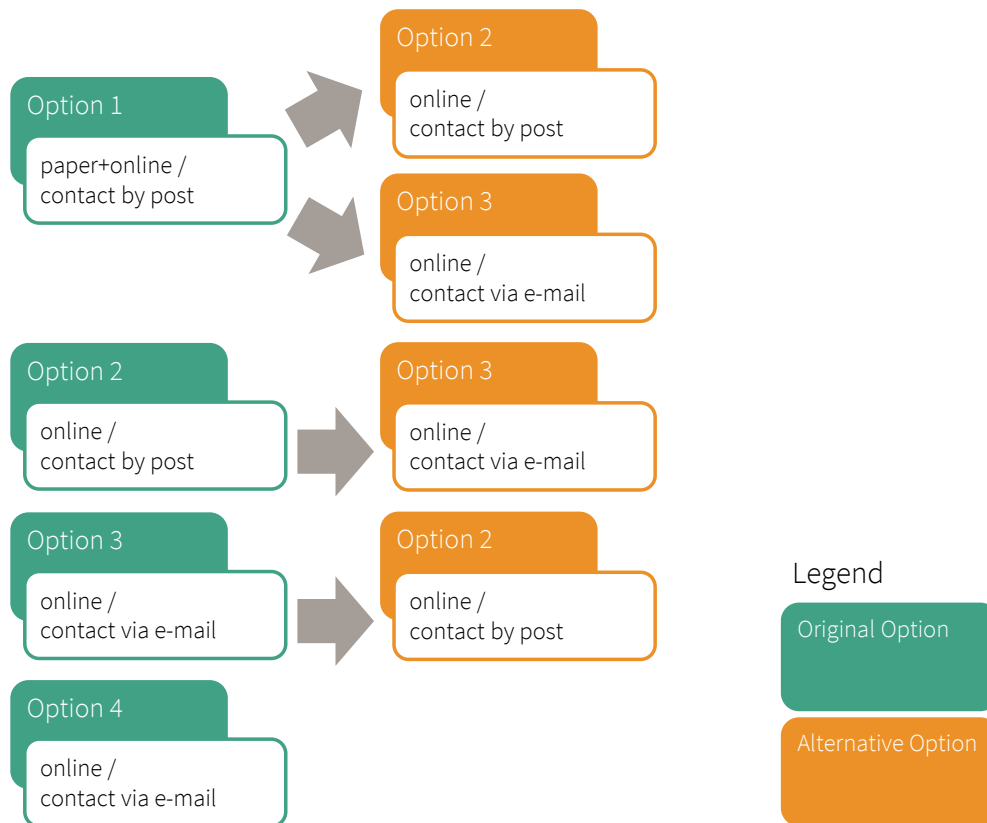
1. About 5 %, but at least one youth office in each federal state, were assigned to option one. The youth offices in this option will contact their family day-care workers by post with a paper questionnaire and the link to the online version of the questionnaire.
2. About 50 % in each federal state were assigned to option two. Here family day-care workers will receive a letter with the link to the online questionnaire from their respective youth office.

3. About 45 % in each federal state were assigned to option three, where the youth offices will invite their family day-care workers to participate in the survey via e-mail with the link to the online questionnaire.
4. All 24,325 remaining family day-care workers that it would not be necessary to contact according to our calculations were assigned to option four. Like in option three, these family day-care workers will receive only an e-mail with the link to the online questionnaire from their youth office. To reduce costs, this group will not receive a paper questionnaire.

Youth offices in options one, two and three will be allowed to switch between the distribution modes – youth offices in option four will not. Specifically, youth offices in option one will be allowed to switch to option two or three, those in option two to three and those in option three to option two as depicted in Figure 6.2-2.

In contrast to the ERiK-Survey 2020, these options simplify the contact paths to the family day-care workers by determining the possible contact option and changes between them beforehand. By applying these options, the whole process was expected to be considerably easier for the research institute and the youth office.

The contact materials for family day-care workers differ depending on the method of delivery.

Figure 6.2-2: **Contacting of Family Day-Care Workers via Youth Offices – Options in the ERiK-Surveys 2022**

If a youth welfare office forwards the materials by post, an invitation letter, the link to the online questionnaire or the paper questionnaire, a return envelope, the project flyer, the legitimization letter from the BMFSFJ, the letter of support from the Federal Association of Family Day-Care (in German: Bundesverband für Kindertagespflege) and the information on the ERiK data protection regulations will be included. If the youth welfare office forwards the materials to the family day-care workers via e-mail distribution list, a digital version of the above-mentioned materials (except for the paper questionnaire) will be enclosed.

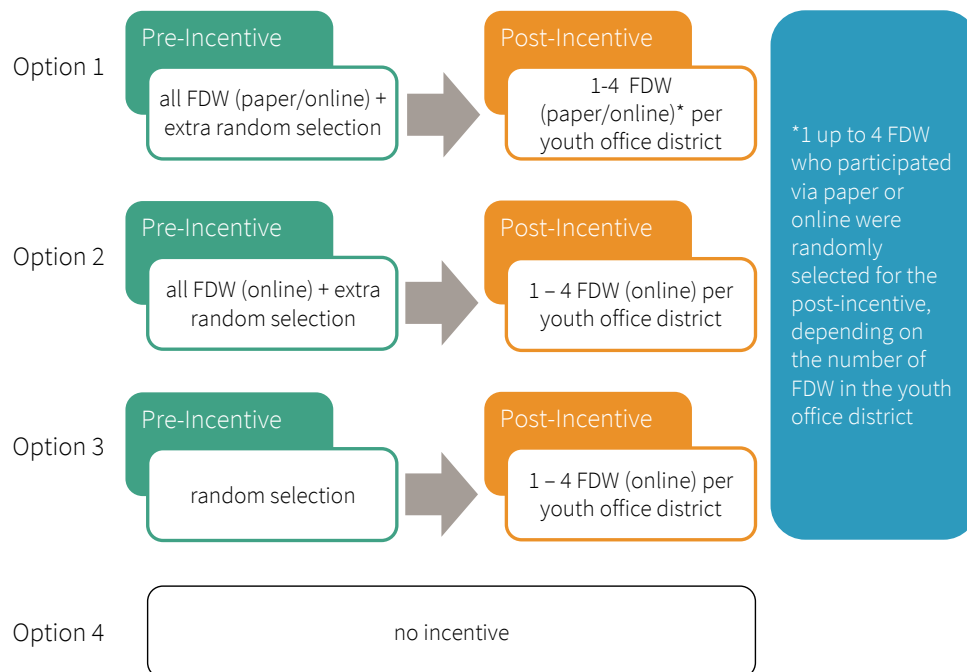
Two weeks after receiving the survey materials, all youth offices will receive reminder letters. They will also receive reminder letters to forward to the family day-care workers in their district, depending on the mode of invitation. A second reminder will be sent on 15 March via e-mail to those youth offices that have not participated in the survey by then. The family day-care workers will not be reminded of the questionnaires a second time. Figure 6.2-1 summarises the contact sequence for youth offices and family day-care workers.

#### **Four-step procedure applied: contact, reminder, pre- and post-incentives**

Incentives will be used to increase the response rate of the family day-care workers as depicted in Figure 6.2-3. Each family day-care worker in contacting options one and two (see Section 5.2) will receive a pre-incentive in the form of vegetable seed packets. Additionally, a randomly selected portion of the family day-care workers in options one, two and three (see Figure 6.2-2) will receive a pre-incentive in the form of a five euro Thalia voucher.

Furthermore, a random selection of family day-care workers from options one, two and three will receive a post-incentive worth ten euros after online participation, which can be chosen from a list (Thalia voucher, waiver or donation option: UNICEF Deutschland, Deutsches Kinderhilfswerk, Deutsche Krebshilfe, SOS Kinderdörfer, Viva con Agua). For financial reasons, the number of post-incentives (total  $\approx 1,000$ ) per youth office district was limited to a range of one to four depending on the number of family day-care workers in a youth office district (see Figure 6.2-3).

Figure 6.2-3: Incentives for Family Day-Care Workers in the ERiK-Surveys 2022



Respondents in youth welfare offices will receive no incentives because they are employed in public institutions and thus not allowed to accept such gifts or rewards (§71 German Bundestag 2009; Section I §3 Federal Ministry of the Interior and Community 2005).

### 6.3 Contacting of Providers of Childcare

The ERiK-Survey 2022 of childcare providers will be conducted from 3 January 2022 by the SOKO Institute for Social Research & Communication. The survey is planned to end on 31 March 2022 and will be implemented as a complete population survey (see Section 5.3). In contrast to the ERiK-Survey 2020 of childcare providers, no tranche concept was applied due to the relatively short field phase of three months.<sup>45</sup>

To draw attention to the ERiK-Survey 2022 of providers and to maximize participant response, we increased our outreach efforts compared to the ERiK-Surveys 2020. At first, in September 2021, we contacted umbrella organisations of childcare providers to promote the start of the ERiK-Surveys 2022 before commencing fieldwork. In addition, in October and November 2021 the ERiK-Survey

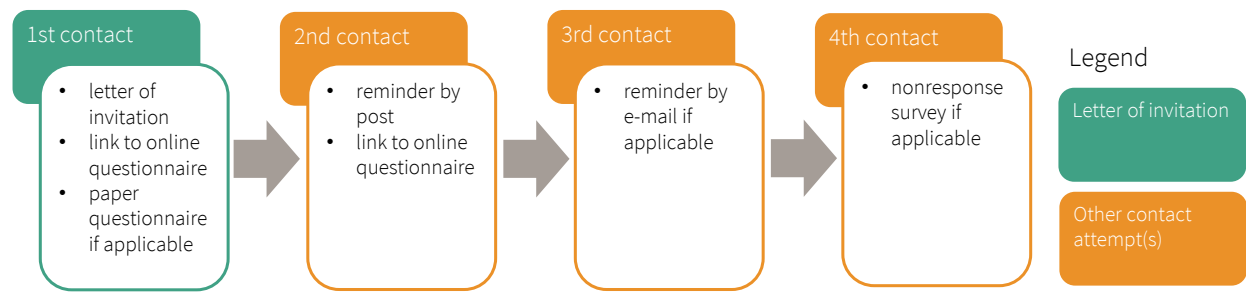
2022 of providers was presented and promoted to two welfare associations, namely the German Red Cross (in German: Deutsches Rotes Kreuz) and the German Association of Non-Affiliated Charities (in German: Deutscher Paritätischer Wohlfahrtsverband). In December 2021, we then invited representatives from the federal states to promote the start of the ERiK-Surveys 2022. Finally, the website [www.dji.de/erik](http://www.dji.de/erik) informed interested readers about the survey in 2022.

#### More outreach for and promotion of the ERiK-Surveys 2022

The fieldwork is planned in four phases, as shown in Figure 6.3-1 and outlined in the following. Initially, the target population will be sent a (non-personalised) letter providing information about the survey of childcare providers and an invitation to take part in the survey. For a more effective use of financial resources, 95 % of the sample will receive only the link to the online questionnaire (OQ) with this invitation. For the remaining 5 % of the cases, this letter will contain a paper questionnaire (PQ) and a link to the online version (OQ) to increase survey response.<sup>46</sup>

<sup>45</sup> The ERiK-Survey 2020 of providers was scheduled from May to the end of September 2020.

<sup>46</sup> In 2020, 50 % of the sample members were randomly allocated to the paper questionnaire (PQ) and online questionnaire (OQ) simultaneously while the other 50 % received only the link to the online option (OQ) (Schacht et al. 2022).

Figure 6.3-1: **Contact Sequence: Providers of Childcare (PRO)**

Like the first survey, the initial letter will be accompanied by pre-addressed, stamped return envelopes for the paper questionnaires as well as a leaflet explaining the ERiK project in more detail and presenting some results based on the ERiK-Survey 2020. Moreover, the invitation letter will contain information about the ERiK data protection regulations and letters of legitimation signed by the BMFSFJ and the Federal Association of Non-statutory Welfare (in German: Bundesarbeitsgemeinschaft der Freien Wohlfahrtspflege e. V., BAGFW) endorsing the ERiK-Surveys 2022. The invitation letter used for the ERiK-Survey 2020 was revised linguistically and graphically to increase response rates (analogue to the example depicted in Figure 6.1-2 for directors).

In phase two, follow-up reminders will be sent by post four weeks after the first invitation. All providers who have not yet participated at this point and did not explicitly refuse to participate will be contacted. While the reminder letter will include a link to the study's online questionnaire, the paper questionnaire will not be mailed again.

Additionally, respondents who have not participated after another four weeks will receive a second reminder via e-mail (advantages of e-mail communication are described e. g. by Cernat/Lynn 2018). The second reminder will be restricted to providers whose e-mail contact information is available. We will add this second reminder to the ERiK-Survey 2022 in order to increase availability of respondents.

In phase four, a random sample of 300 nonresponding providers will be called directly to conduct a nonresponse survey. These providers will be invited to complete a short nonresponse questionnaire by phone during the first week of April 2022.

Similar to the youth welfare office survey (see Section 6.2) and the ERiK-Survey 2020 of providers, no incentives were used during the entire field period because institutions in Germany are not allowed to accept these.

## 6.4 Contacting of Children in Day-Care

Data collection from parents and day-care centres for the ERiK-Survey 2022 of children is planned to take place from March to April 2022. The sample of day-care centres will initially be contacted at the beginning of March 2022. Child interviews will take place from May to July 2022.

As described in Section 5.4, parents will be contacted through the day-care centres. If their parents consent, the children will then be interviewed in these centres. The contact materials for day-care centres will include an invitation letter, a letter concerning data protection, a booklet offering further information on the survey, a poster for parents providing more information on the survey as well as a short questionnaire for directors and a prepaid envelope to return this questionnaire. Furthermore, the contact materials for day-care centres will be complemented with a package of flower seeds as a pre-incentive. In addition, day-care centres will receive an average of 45 envelopes for parents. The directors will be asked to forward these envelopes to parents of children aged four years or older who attend the specific day-care centre and do not attend school yet.

**Contact materials for parents distributed by day-care centres**

Envelopes for parents will contain an invitation letter with login details to answer the parent questionnaire online, a letter concerning data protection, a booklet providing further information on the survey as well as a parental consent form to allow for the participation of the child. Parents were asked to return the completed form to the day-care centre. The parental consent forms will be collected by the director and handed to the interviewer on the first day of child interviews. All contact materials for centres and parents were reviewed after the pretest which led to some modifications (see Section 8.1).

Day-care centres which do not return the short questionnaire for directors and for which no participation of parents in the parent survey is registered will be reminded to complete the questionnaire or to forward the envelopes to parents. The affected institutions will be contacted by telephone and/or e-mail between the middle and end of March 2022.

For the child interviews, six children<sup>47</sup> per day-care centre for whom signed parental consent

forms are available will be randomly selected. These children are contacted personally in their day-care centre and invited to participate in a ‘warm-up phase’ to give them the opportunity to become accustomed to the interviewer. Subsequently, the target children are asked one by one to participate in the face-to-face interview. The interviews will be conducted by experienced and trained female interviewers.

#### **Incentives for day-care centres and children applied in ERiK-Survey 2022 of children**

During the interview, an animal figure will be used to move around a playing field depicting a day-care centre. As an incentive, children will be allowed to select an animal figure and to keep it after the interview. After completing the child interviews, each day-care centre that participated will receive an insect hotel as a post-incentive. A few months later, day-care centres as well as parents will be informed of a website presenting preliminary results by letter or e-mail respectively.

<sup>47</sup> These include four target children as well as two additional children who were asked to take part in the child interview if target children are absent or not willing to participate in the study.



## 7. ERiK Parent Survey

The ERiK parent survey is one part of the DJI Childcare Study (KiBS). Since 2012 (from 2012 to 2015 under the name KiföG<sup>48</sup> project), KiBS has been funded by the BMFSFJ and surveys parents with at least one child in a large-scale survey. Since 2016 it has been conducted as an annual state-representative survey of approximately 35,000 parents of children under the age of 15 (2016/2017) and 29,000 under the age of 12 (as of 2018).

In 2020, the ninth wave of KiBS surveyed parents of children up to eleven years old. The children can be divided into three groups: Children under the age of three (K0-2), children aged three years and older (not yet attending school) (K3-6) and primary school children. The ERiK module has formed part of KiBS since 2020 and been available to parents with children from birth to school age.

**Since 2020 the ERiK questions are part of KiBS.**

The main topics of the study are the current care situation, care needs and gaps, satisfaction with childcare and reasons for non-use. In 2020, KiBS was extended by the ERiK module comprising additional questions about the quality of day-care. These questions – forming the ERiK parent survey – were asked only of those parents whose child selected in the study attends some form of day-care but not yet a school.

### Target Population and Sampling Frame

The aim of KiBS is to assess parental childcare needs and the childcare situation of children up to the end of primary school. Therefore, the target population of KiBS consists of all parents living in Germany with a child in primary school or younger (Lippert/Anton/Kuger 2023). However, the ERiK parent survey only considers children up to school entry age attending some form of day-care.

**The KiBS sampling frame consists of children in the registers of local authorities.**

The target population is sampled through the children of these parents: the sample was randomly selected from addresses in the registers of local authorities (in German: Einwohnermeldeamt) where children of the relevant age group are registered. Due to the time lag between birth, registration, sampling and completion of the questionnaire, the probability of children aged two months or younger being included in the sample is very low. Accordingly, KiBS sampled parents of children aged three months to ten years who were registered in the official registers in 2020 (for more information see *ibid.*).

Finally, one parent who lives in a household with the selected child and has custody of that child (legal guardianship) is interviewed. In addition to information on the responding parent of the target child, data is collected on the other parent and the child itself.

As a parent may have more than one child, it is possible that parents with more than one child would be included in the sample multiple times. Duplicates of addresses and surnames were removed from the operational sample by the survey institute. In this case, a parent would be interviewed only once, which could leave parents of multiple children underrepresented.

The ERiK parent survey is based on the KiBS sampling frame but, as noted above, only includes parents of children attending day-care but not yet attending school. Due to the ERiK parent survey being part of KiBS, these restrictions to the target population could only be applied through filtering in the questionnaire.

### Sampling Design

The goal of the KiBS survey was to obtain a net sample of  $n=32,800$  children for each of which one parent was to be interviewed. Overall stratification took place according to two characteristics:

48 Short for Child Support Act (in German: Kinderförderungsgesetz).



federal states (with 16 strata) and age groups of children (with 3 strata). The target for each federal state was 800 children under the age of three, 500 children aged three to five and 750 children aged six to ten<sup>49</sup>.

Overall, the KiBS sample consists of two parts: a panel from previous waves and a refresher sample to supplement the panel cases. The gross sample consisted of n=119,248 cases, of which n=25,084 cases were drawn from the panel and n=94,164 cases were drawn as a refresher sample. Ultimately, KiBS contains valid interviews for 33,778 cases (for more information see Lippert/Anton/Kuger 2023).

### 17,300 parents received the ERiK questions.

Of this total, 17,300 parents of children attending day-care but not yet attending school received the questions of the ERiK parent survey. The ERiK-reporting in some instances also considers all parents of children who are not yet attending school regardless of their day-care attendance. About 22,550 parents of this population were part of KiBS.

## Contacting and Survey Design

The survey was conducted by the infas Institute for Applied Social Sciences between January and August 2020. The households for which a telephone number was available were first informed about the study via mail. This first postal contact was carried out in several tranches over a period of 19 weeks (January to May 2020). If the parents did not want to participate by phone (CATI), they were offered the opportunity to use the online questionnaire (OQ) instead. Households for which no telephone number was available received the invitation letter and the paper questionnaires (PQ) via mail. These letters also contained a link and a personal code for the online questionnaire.

### Sequential mixed mode survey: telephone interviews, online and paper questionnaires

Reminder letters were sent to the PQ users five weeks after the initial contact. A total of 33,416 reminder letters were sent out, resulting in the

completion of an additional 3,229 questionnaires. For more information about the fieldwork and survey design of KiBS see *ibid.*

## Fieldwork Results and Weighting

In both the refresher and panel samples, non-contact rates were relatively high. In the panel sample, this rate was 24 % and in the refresher sample 65 %. Overall, 591 children were considered ineligible for the survey because, in most cases, these children had already left primary school. The number of non-eligible children is probably much higher. However, because of the low contact rate, it is impossible to estimate this number reliably.

### No major changes compared to wave 8 (2019) in terms of fieldwork

Of the potential respondents who were asked to complete a paper questionnaire, very few explicitly refused to participate or indicated that they were no longer part of the target population (less than 1 %). This contrasts with the CATI samples. Here, 7 % of the panel sample and 21 % of the refresher sample refused to participate in the survey. Overall, the sample consisted of 51 % respondents from the refresher sample. Consequently, 49 % of the respondents came from the panel sample. The details can be seen in Table 7.0-1.

Table 7.0-1: Fieldwork Parent Survey

	Panel Sample		Refresher Sample	
	n	%	n	%
Gross sample	25,084	100	94,164	100
ineligible	494	2	97	0
Refusal	1,197	5	2,800	3
Non-contact	5,919	24	60,807	65
Nonresponse (other)	351	1	507	1
Unknown eligibility			13,382	14
Interview invalid	55	0	117	0
Interview valid	16,542	68	16,571	18
Of which		100		100
CATI	10,827	63	2,659	16
OQ	1,893	11	3,596	22
PQ	4,348	26	10,199	62

Note: Abbreviations: CATI: Computer Assisted Telephone Interview; OQ: Online questionnaire; PQ: Paper questionnaire. Percentages might not add up to 100 due to rounding.

Source: DJI, Childcare Study (KiBS) 2020, unweighted data

49 In Berlin and Brandenburg, children aged six to eleven.

At the time the samples were drawn, it was not known whether the children were already attending school or not. Due to this situation, it was not possible to calculate the response rate for the ERiK sample. However, children aged under six are mostly not enrolled in school yet. Therefore, Table 7.0-2 shows the approximated response rate for the ERiK sample considering only children aged under six years.

Table 7.0-2: **Approximated Response Rate (AAPOR) Parent Survey**

	Refresher	Panel	Refresher + Panel
	%	%	%
0 to 2 years old	19	68	25
3 to 5 years old	16	69	32
0 to 5 years old	18	68	27

Source: DJI, Childcare Study (KiBS) 2020, unweighted data

In order to be able to make valid generalisable statements about the care situation of children in Germany, the KiBS data were weighted. This weighting was done by calibrating the sample results to the official population distributions using iterative proportional fitting (raking) (Deming/Stephan 1940; Deville/Särndal/Sautory 1993; Kolenikov 2014). The variables used for calibration were:

- › the number of children in each federal state,
- › the age distribution in those states and
- › the proportion of children in day-care.<sup>50</sup>

More details on the weighting process in KiBS can be found in the forthcoming KiBS method report, which will closely resemble the 2021 method report (Kuger/Gedon 2021).

50 Different constructs were used depending on the age group (children under three years: proportion of children in day-care; children aged three to six: proportion of children in day-care for more than 35 hours per week; children attending elementary school: proportion of children attending an after-school or all-day school).



## 8. Survey Instruments

The main topics of the ERiK-Surveys are indicators covering the ten fields of action and measures to ease the burden of fees on families defined in the KiQuTG (for more information see ERiK Research Report II Klinkhammer et al. 2022). To strengthen this focus in the ERiK-Surveys 2022, the instruments were reviewed and revised to improve them compared to the 2020 materials. Since the ERiK-Surveys 2022 also include a survey of children for the first time, a pretest was conducted to evaluate and address the challenges of interviewing young children in day-care centres. In this chapter we first present this pretest of children (see Section 8.1) before going into details of the questionnaire revisions for the other ERiK-Surveys 2022 (see Section 8.2).

### 8.1 Pretest for Children

In order to test materials, questionnaires and data collection methods of the ERiK-Survey 2022 of children, a pretest was conducted by the infas Institute for Applied Social Sciences. In winter 2020, 13 day-care centres were recruited and asked to pass contact materials on to parents.<sup>51</sup> However, the Covid-19 pandemic forced day-care centres in Germany to close shortly thereafter and the pretest had to be stopped. In September 2021, the sample of day-care centres was contacted again and asked to complete the short questionnaire for directors and to pass contact materials on to all parents of children aged four years or older who did not yet attend school. One day-care centre refused to take part because at that time no external persons were allowed to enter the centre and carrying out child interviews therefore would not have been possible. Five questionnaires for directors were completed. For eight day-care centres participation of parents in the parent survey was registered. In total, 29 parents participated in the parent survey and 22 gave their consent for the

child to take part in the study. Child interviews were carried out in five day-care centres by three interviewers. These centres were selected on the basis of the highest numbers of parents giving permission for the child to be interviewed. Ultimately, 16 child interviews were conducted in October 2021.

**A pretest with 16 children in five day-care centres was conducted for the ERiK-Survey 2022 of children.**

Based on the results of the pretest, we made some changes to the materials. In the invitation letters and information booklets for the day-care centres and parents, the contents and time periods have been adapted to the main survey. Furthermore, the game plan, which serves as the basis for the children's survey, was changed: the fields that were previously shown for each individual question were replaced by fewer fields that represent the thematic blocks of the survey. This reduces the number of fields from 39 to 9. This is because it was difficult for most children to move one field after each question. In addition, the number of questions in the questionnaire was reduced from 39 to 26, with 8 open and 18 closed questions remaining. Questions that were found to be difficult for the children were simplified; for example, the questions asking children to answer with a frequency scale was rephrased to an open question (how often).

### 8.2 Questionnaire Revisions

The other ERiK-Surveys 2022 rely on the five instruments developed for the ERiK-Surveys 2020 that were thoroughly revised following extensive consultations with stakeholders in the ECEC policy community. This consultation process was prepared by a detailed screening of the 2020 ERiK questionnaires. Each question was analysed with respect to mean response durations, missing values, relevance for the ERiK indicators, interrela-

<sup>51</sup> Day-care centres were chosen by the infas Institute for Applied Social Sciences. In contrast to the sampling procedure pursued for the main survey, the day-care centres recruited for the pretest did not participate in the ERiK-Surveys in 2020.

tions with other ERiK survey questions and usefulness for the reporting program. In May 2021, the results of this screening were discussed with the network of ECEC scholars advising the implementation of the monitoring project. Additional reviews (known as ‘informal methods’ Campanelli 2009, p. 178) were given by:

1. senior civil servants from the BMFSFJ and the state-level ministries responsible for ECEC;
2. the research groups tasked with evaluating the impact of the KiQuTG Act;<sup>52</sup>
3. the survey institutes that had to conduct the surveys in the field.

Drawing on the insights from these consultations, the project team revised the questionnaires during June and July 2021. Questions covering the consequences of the Covid-19 pandemic were eliminated to streamline the questionnaire. In addition, cognitive pretests were conducted to examine how respondents understood the questionnaires (for a definition see e. g. M. Häder 2010). Although such pretests had been done prior to the 2020 surveys, the revised questionnaires for family day-care workers, youth welfare offices and providers were tested again in September 2021. The test focused on how respondents understood the revised questions and terms. In light of the pretest results, the questionnaires were modified as follows:

The questionnaire for family day-care workers was complemented by a check whether respondents belonged to our target population insofar as they do not exclusively provide care for school children. Two additional questions were included to check if their family day-care work was recognised by public authorities. This was done by asking whether they or their existing childcare contracts received public subsidies and whether they had a valid permit. The additional questions served to identify eligible survey participants more precisely. In the same survey, a sentence was included to ensure that family day-care workers did not misunderstand the term “preschool children” as a subcategory of “school children”

In the questionnaire for youth welfare offices, the term family day-care license was replaced by the more intuitive term family day-care per-

mit (in German: *Pflegeerlaubnis*). A short definition of socioeconomically deprived areas (in German: *belasteter Sozialraum*) was added in the surveys for youth offices and providers. In the provider survey, the term basic amount (in German: *Sockelbetrag*) was replaced by the more intuitive term proportionate time resources (in German: *anteilige Zeitressourcen*) in a question asking whether providers use contracts to determine the time for management tasks in day-care centres.

The pretests suggested that a question about the participation in the preceding ERiK-Surveys 2020 might be misunderstood. Participants in the tests tended to interpret subsequent questions as related to the 2020 survey. Hence, the respective question was placed at the end of the questionnaires. All five surveys were modified to avoid such misunderstandings. Additionally, the survey questions on vocational qualifications posed to directors, family day-care workers and pedagogical staff were expanded by an option to give an open answer.

#### Revisions led to the deletion of 2 to 45 questions.

The main goals of these consultations, pretests and revisions were to reduce the number of questions, to further specify questions and to include additional relevant questions in the monitoring. Screening questions were placed at the beginning of the questionnaires to avoid fatigue and learning effects due to later question placement (Krosnick/Presser 2010, p. 292). These revisions aimed to improve response rates, the validity of answers<sup>53</sup> and the consistency between survey answers and indicators included in the monitoring system (e. g. Burchell/Marsh 1992; Eisele et al. 2020). Table 8.2-1 shows several characteristics of the resulting ERiK questionnaires for 2022 in comparison to 2020.

In the ERiK-Surveys 2020, the number of questions ranged between 56 (pedagogical staff) and 103 (directors). The questionnaire for directors of centres was reduced by ten questions so that the questionnaire for the ERiK-Survey 2022 now comprises 93 questions, covering 24 pages and

<sup>52</sup> These groups were involved to avoid losing items and data needed for the evaluation.

<sup>53</sup> Respondents' answers can be considered valid if they fall within the range of plausible or meaningful answer options, indicating a proper understanding of the questions posed (Gideon 2012, p. 95).

Table 8.2-1: **Characteristics of the ERiK Questionnaires 2020 and 2022 (frequencies, with % in parentheses)**

	Survey Year	Directors	Pedagogical Staff	Family Day-Care Workers	Youth Welfare Offices	Providers
Questionnaire pages (incl. Covid-19-related questions)	2020	26	19	34	33	36
	2022	24	16	28	20	24
Questions, paper questionnaire (incl. Covid-19-related questions)	2020	103	56	96	84	90
	2022	93	54	81	57	55
Variables in programming template (incl. Covid-19-related variables)	2020	429	284	433	302	396
Variables in programming template	2022	343	243	272	221	345
Assigned to KiQuTG	2022	303 (88)	221 (91)	222 (82)	208 (94)	270 (78)
Of which:*						
- Core indicators	2022	90 (30)	85 (38)	91 (41)	35 (17)	60 (22)
- Multi-perspective	2022	234 (77)	169 (76)	180 (81)	125 (60)	258 (96)
Not assigned to KiQuTG	2022	40 (12)	22 (9)	50 (18)	13 (6)	75 (22)
Sociodemographics/ Metainformation	2022	18 (5)	15 (6)	42 (15)	4 (2)	5 (1)
Relevant for weighting	2022	3 (1)	2 (1)	5 (2)	0 (0)	19 (6)

Note: \* The shares in the following two lines do not add up to the total of the line above (or 100 %) because variables can also be both, core indicators and multi-perspective items or neither.

Table 8.2-2: **Duration of the ERiK 2020 Questionnaires and their Estimated Reduction for 2022 (in minutes; median, mean in parentheses)**

	Survey Year	Directors	Pedagogical Staff	Family Day-Care Workers	Youth Welfare Offices	Providers
Duration of complete interviews only	2020	52 (55)	31 (34)	56 (72)	81 (114)	47 (65)
Duration of partial and complete interviews	2020			52 (64)	63 (94)	38 (52)
Reduction (as calculated on question level)	2022	12 (16)	7 (10)	13 (20)	19 (49)	13 (28)

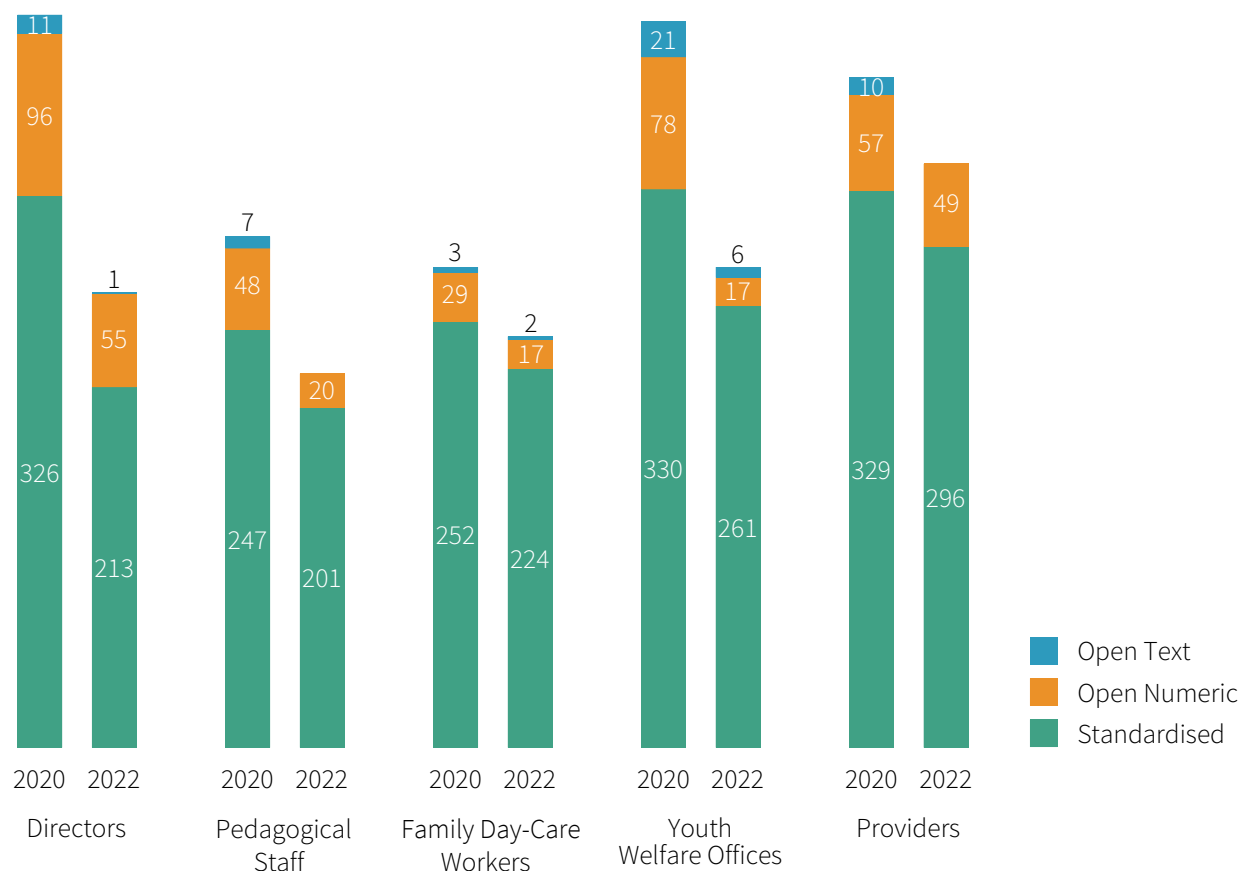
coded in 343 variables. Reductions in the questionnaire for pedagogical staff comprised two questions, 40 variables and two pages. As a result, the instrument for the ERiK-Surveys 2022 consists of 54 questions, 243 variables and 16 pages. The questionnaire for family day-care workers was shortened by 15 questions, from 96 to 81. Its 2022 version has 272 variables and 28 pages. In contrast, the questionnaire for the youth welfare offices was abridged more comprehensively, down to 57 questions, 221 variables and 20 pages, while the 2020 questionnaire still included 84 questions. The other instrument surveying institutions, providers of day-care centres, was similarly stream-

lined from 90 to 55 questions, which correspond to 24 pages and 345 variables.

#### Fewer open answers to reduce participation burdens

During the revision process, particular attention was paid to removing questions that required time-consuming open answers (see for a definition of open answers e. g. Züll/Menold 2014). For example, the ERiK 2020 questionnaire for directors stored open answers in 99 variables, of which only 23 were kept (17 for open numerical answers, such as numbers of children, and 6 for open text

Figure 8.2-1: Changes in the Number of Variables 2020-2022



answers). The total numbers of variables for open text answers now range between zero (youth offices and providers) and six (directors) whereas their number ranged between 4 and 21 in 2020. There are 17 to 49 variables for open numerical answers in the ERiK-Survey 2022 questionnaires, whereas the questionnaires of the ERiK-Surveys 2020 included 14 to 78 variables of this type (see Figure 8.2-1).

Since the durations of individual responses had been measured in the online surveys in 2020, it was possible to estimate the time savings resulting from the omission of questions. The largest savings were expected for the survey of youth welfare offices, where the number of omitted questions accounted for a median response time of 19 minutes (see Table 8.2-2). Estimated response time reductions for the other surveys ranged between seven and 13 minutes (median values). However, it should be noted that subtracting these time savings did not enable calculations of the prospective durations of the 2022 surveys. As the revision process also entailed adding new survey items and rephrasing existing items, the response

durations from 2020 provided only rough guidance for 2022.

The resulting questionnaires are more focused on the indicators selected for the monitoring: Variables measuring KiQuTG indicators account for 78 % (providers) to 94 % (directors) of the total variables per instrument as noted in Table 8.2-1. The percentages of indicator-related variables for the other three surveys fall within this range.

All five instruments feature questions referring to aspects that are also addressed in questionnaires for other populations. These interrelated questions are key components of the measurement approach developed in the ERiK project since they facilitate a multi-perspective analysis that integrates the views of the most important actors in ECEC. The share of multi-perspective variables differs across questionnaires, ranging from 60 % (youth offices) to 96 % (providers). Variables that collect sociodemographic characteristics of the respondents (e. g. gender, age, education and migration background) and information about how they answered the questionnaire make up 1 to 15 % of the questionnaires. Four surveys



Table 8.2-3: Policy Areas, Indicators, Sources and Variables in the ERiK-Surveys 2022 (Frequencies)

Field of Action	Indicators	Code Numbers	Sources	Variables
01 Need-based ECEC Provision	4	39	DIR, FDW, YWO, PRO, PAR, KJH	132
02 Good Staff-Child Ratio	3	8	DIR, PST, PRO, PAR, KJH	59
03 Qualified Staff	5	29	DIR, PST, YWO, PRO, PAR, KJH	236
04 Strengthening Leadership	4	20	DIR, FDW, YWO, PRO, KJH	186
05 Improving Room Design	1	5	DIR, PST, FDW, YWO, PAR, CHI	73
06 Developmental Support, Health, Nutrition and Physical Activity	4	11	DIR, PST, FDW, PRO, PAR, CHI, KJH	148
07 Linguistic Education	3	7	DIR, PST, FDW, YWO, PRO, PAR, KJH	66
08 Strengthening Family Day-Care	8	29	DIR, FDW, YWO, PRO, PAR, KJH	183
09 Improving ECEC Governance	5	14	DIR, PST, FDW, YWO, PRO, PAR	257
10 Coping with Substantive Challenges	6	24	DIR, PST, FDW, YWO, PRO, PAR, CHI, KJH	268
Alleviating the Burden of Childcare Fees	1	5	DIR, FDW, YWO, PRO, PAR	39

Note: DIR: Directors; PST: Pedagogical staff; FDW: Family day-care workers; YWO: Youth welfare offices; PRO: Providers; PAR: Parents; CHI: Children; KJH: KJH statistics

include questions asking for information that can be used to create survey weights (1 to 6 % of the variables).<sup>54</sup>

Table 8.2-3 shows how the policy areas defined by KiQuTG are covered by indicators, disaggregated indicators (in German: ‘Kennzahlen’), which surveys and whether official data are used to measure the indicators and how many variables relate to each policy area.

In the online surveys, respondents who do not respond to questions and try to continue the questionnaire are asked to give an answer. These confirmation requests were intended to reduce item nonresponse and to improve the clarity of responses (Schnell 2019; Toepoel 2008, p. 116). If this soft reminder is ignored by respondents, slightly different procedures have been implemented by the two survey institutes in 2020 and 2022. In the 2022 surveys of directors and pedagogical staff, nonresponding participants can only continue if they enter an answer or confirm their nonresponse by clicking on ‘No information’ or ‘Continue’. For the two introductory questions check-

ing respondents’ eligibility, substantive responses were made mandatory in 2022.

In contrast, the surveys of youth offices, providers and family day-care workers were implemented with a different software (Lime survey rather than a custom-built survey questionnaire tool). This technical choice limited the use of soft reminders to important questions (e.g. filter questions or questions related to weighting information). Nonresponding participants can proceed to the following question if they click on ‘Continue’. Respondents can continue the surveys even if they do not answer the introductory screening questions.

Nonresponse to filter questions is treated the same in all five surveys insofar as non-respondents are guided through the full set of follow-up questions. No filtering rules are applied after a respondent has refrained from answering the preceding filter question. This routing approach was chosen to collect as much information as possible and thus help preserve cases with item nonresponse.

<sup>54</sup> The survey of youth welfare offices relies on publicly available data for weighting.



## 9. Summary

In the ERiK Methodological Report III, the target populations, sampling frames, sampling design, survey design and the development of the questionnaires of the ERiK-Surveys 2022 have been presented. Particular emphasis was placed on the changes from the ERiK-Surveys 2020 documented in the ERiK Methodological Reports I and II (Schacht et al. 2021, 2022). In this chapter, these changes are briefly summarised.<sup>55</sup>

The definitions of the target populations (see Chapter 3) have not changed for youth welfare offices and providers, while minor adjustments have been made to the definitions for directors, pedagogical staff and family day-care workers in the ERiK-Surveys 2022. For directors, shared management arrangements were more clearly addressed; for pedagogical staff, the distinction between pedagogical staff and directors as well as volunteers was emphasised; and for family day-care workers, the care of pre-school children was more strongly emphasised.

For the ERiK-Surveys 2020, commercially acquired sampling frames (see Chapter 4) were used for day-care centres and providers; for the ERiK-Surveys 2022, corresponding sampling frames were acquired from the German federal state governments. In doing so, the ERiK team achieved its goal of improving the coverage of these target populations and to establish a new standard in surveying day-care centres and providers. The sampling frame for the youth welfare offices was compiled and updated by the ERiK team.<sup>56</sup>

The sampling designs (see Chapter 5) were adjusted slightly for the ERiK-Surveys 2022 compared to the ERiK-Surveys 2020 with regard to the targeted number of completed questionnaires per survey. This resulted in a varying number of

pedagogical staff being contacted per day-care centre and a complete population survey of family day-care workers (in addition to the complete population surveys of youth welfare offices and providers). In addition, some changes were implemented in the modes of contact and the distribution of questionnaires. To be precise, only in the youth welfare office survey was the mixed-mode implemented, while in the other surveys the proportion of questionnaires in the online only mode was increased, ranging from 20 % in the survey of directors and pedagogical staff to 95 % in the survey of providers and 97 % in the survey of family day-care workers.

The survey designs (see Chapter 6) for the ERiK-Surveys 2022 were also subject to minor adjustments compared to the ERiK-Surveys 2020. Specifically,

- › the tranche concept has been dropped in all surveys,
- › we aimed for shorter field periods, e.g. reach youth offices within the first two weeks after the start of field work,
- › the pre-contacting of youth welfare offices and providers of childcare was intensified for the ERiK-Surveys 2022,
- › the contact materials (e. g. the invitation letter) were intensively reviewed, updated, revised linguistically and graphically and made more concrete to improve participation (Greenberg/D. Dillman 2021) and
- › we changed the distribution and amount of post-incentives for family day-care workers slightly and introduced pre-incentives for this population.<sup>57</sup>

The survey instruments (see Chapter 8.2) were shortened to increase respondents' willingness to participate. Thus, the paper questionnaire has between two pages (directors) and 13 pages (youth welfare offices) less in 2022 than in 2020, for ex-

<sup>55</sup> As the ERiK-Survey 2022 of children will be conducted for the first time in 2022, a corresponding comparison for this survey is not possible with the ERiK-Surveys 2020 or the ERiK Methodological Report I (Schacht et al. 2021). In the ERiK parent survey, which is part of the DJI Childcare Study (KiBS), only changes with regard to the questionnaire have been implemented (see Kuger/Gedon 2021; Lippert/Hüsken/Kuger 2022).

<sup>56</sup> The family day-care workers and pedagogical staff are sampled indirectly, as no sampling frame is available for these populations (for more information see also the ERiK Methodological Report I, Schacht et al. 2021).

<sup>57</sup> Use of the same incentives is planned for the directors and pedagogical staff as in the ERiK-Surveys 2020.

ample. In KiBS, the ERiK module in the questionnaire was also shortened, but no changes were made to the sampling and survey design between 2020 and 2021 (see Chapter 7; for more information on KiBS see the methodological report; Lippert et al. 2022).

The ERiK Methodological Report III refers to the planning prior to the field period of the ERiK-Surveys 2022. The cut-off date was 31 December

2021, so any changes that occurred in the field after that date will be considered in the next methodological reporting of the ERiK project. The extent to which the design changes have been successful and the results they have produced will also be part of this report. The corresponding datasets of the ERiK-Surveys 2022 (Gedon et al. 2023) will be accessible at the DJI-FDZ from mid 2023.

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## A. Appendix



Table A.0-1: Address Lists of Day-Care Centres from the German Federal States

	Full Postal Address	E-Mail Address	Telephone Number	Municipality	Youth Office District	Mergeable to Provider List	Other Information
Baden-Wuerttemberg	X	13 % missing	9 % missing		X	X	CEN IDs, type of CEN
Bavaria	X		X		X	X	CEN IDs, district name and number
Berlin	X	X				X	age structure of children, type of CEN
Brandenburg	X	X	X	X		X	
Bremen	X	X	X			X	
Hamburg	X	X				X	CEN IDs, district name
Hesse	X	15 % missing	X	X	X	X	CEN IDs
Mecklenburg-Western Pomerania	X	X	X	X		X	number of places for children
Lower Saxony	X					X	date of opening
North Rhine-Westphalia	X	X	X	X	X	X	
Rhineland-Palatinate	X			X	X	X	
Saarland	X	X	X	X	X	X	CEN IDs
Saxony	X						CEN IDs
Saxony-Anhalt	X	15 % missing	X	X	X	X	CEN IDs, contact person, more information
Schleswig-Holstein	X	X	X	X	X	X	CEN IDs
Thuringia	X				X	X	CEN IDs

Note: X: Information available (missing in less than 5 % of cases); CEN: Day-care centre(s); ID: Identification number.  
Source: German federal state lists

Table A.0-2: **Address Lists of Providers of Childcare from the German Federal States**

	Full Postal Address	PRO Type Public/Private	Number of Centres	E-Mail Address	Telephone Number	Municipality	Youth Office District	Mergeable to Centre List	Other Information
Baden-Wuerttemberg	X	X	X	33% missing	9% missing	X	X	X	more detailed PRO type
Bavaria	X	X	X		X		X	X	more detailed PRO type
Berlin	X	X	X		X			X	more detailed PRO type, PRO IDs
Brandenburg	X	X	X	X	X	X	-	X	number of places for children across all centres
Bremen	X	X	X	X	X			X	more detailed PRO type
Hamburg	X	X	X	X				X	
Hesse	X	X	X		X		X	X	PRO IDs
Mecklenburg-Western Pomerania	X	X	X			X	-	X	more detailed PRO type, number of places for children
Lower Saxony	X	X	X					X	more detailed PRO type
North Rhine-Westphalia	X	X	X	21% missing	22% missing		X	X	more detailed PRO type, PRO IDs
Rhineland-Palatinate	X	X					X	X	more detailed PRO type, administrative office
Saarland	X	X					X	X	PRO IDs
Saxony	X								
Saxony-Anhalt	X	X		44% missing	44% missing	X	X	X	more detailed PRO type, PRO IDs, homepage, contact person, more information
Schleswig-Holstein	X	X	X	X	X		X	X	more detailed PRO type, PRO IDs
Thuringia	X	X	X				X	X	more detailed PRO type, PRO IDs

Note: X: information available; PRO: Providers of childcare; ID: Identification number.  
Source: German federal state lists

Table A.0-3: Sampling Design of the ERIK-Survey 2022: Directors

	BW	BY	BE	BB	HB	HH	HE	MV	NI	NW	RP	SL	SN	ST	SH	TH	Total
2020																	
Gross sample (number of questionnaires)	1.320	1.320	660	825	328	330	991	660	991	1.320	825	330	825	825	825	825	13.200
Valid questionnaires (n)	434	495	149	212	90	57	292	138	302	442	302	83	279	176	205	211	3.867
Share of n / gross (in %)	33	38	23	26	27	17	29	21	30	33	37	25	34	21	25	26	28
2022																	
Size of the population 2021 (N)	9.358	9.308	2.787	1.611	471	1.163	4.415	1.011	5.887	11.115	2.509	473	2.816	1.414	1.842	1.343	57.523
Sample sizes needed (z=1,96; moe=0,05; p=0,5)	384	384	338	310	212	289	353	279	361	384	333	212	338	302	318	299	5.097
Sample sizes needed + 5% (Covid-19-Pandemic)	404	404	356	327	223	304	372	293	380	404	351	223	356	318	335	315	5.365
Gross sample needed / size of the population (N)	1.230	1.078	1.575	1.271	813	1.761	1.263	1.402	1.246	1.208	958	888	1.053	1.491	1.347	1.230	19.814
Gross needed in 2022 (corrected for >100%)	13	12	57	79	173	151	29	139	21	11	38	188	37	105	73	92	76
Expected sample sizes (corrected for gross/share n 2020)	1.230	1.078	1.575	1.271	471	1.163	1.263	1.011	1.246	1.208	958	473	1.053	1.414	1.347	1.230	17.991
Mode:	405	405	356	327	130	201	373	212	380	405	351	119	356	302	335	315	4.972
Paper and online questionnaire (80%)	984	863	1.260	1.017	377	930	1.010	809	997	966	767	378	842	1.131	1.078	984	14.393
Only online questionnaire (20%)	246	216	315	254	94	233	253	202	249	242	192	95	211	283	269	246	3.598
Ideal Sample Size 2022 (Formula 1)																	
Ideal n with alpha=0,05; moe=0,05; p=0,5	369	369	338	310	212	289	353	279	361	371	333	212	338	302	318	299	5.054
Ideal n with alpha=0,05; moe=0,05; p=0,4	355	355	326	300	207	280	340	270	347	357	322	207	326	293	307	290	4.883
Ideal n with alpha=0,05; moe=0,05; p=0,3	312	312	289	269	192	253	301	245	306	314	286	192	290	263	275	260	4.357
Ideal n with alpha=0,05; moe=0,05; p=0,2	240	240	226	213	162	203	233	198	236	241	224	162	226	210	217	208	3.438
Ideal n with alpha=0,05; moe=0,05; p=0,1	136	136	132	127	107	124	134	122	135	137	131	107	132	126	129	125	2.041
Ideal n with alpha=0,05; moe=0,05; p=0,05	72	72	71	70	63	69	72	68	72	73	71	63	71	69	70	69	1.117
Ideal Sample Size 2022 (Formula 2 if n/N < 0,05)																	
deal n with alpha=0,05; moe=0,05; p=0,5	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	
Share of the population 2021 (n/N)	4	4	13	20	27	17	8	21	6	4	14	25	13	21	18	23	9

Share gross needed/N > 100% States where Formula 2 was used

Note: Abbreviations: BW: Baden-Wuerttemberg; BY: Bavaria; BE: Berlin; BB: Brandenburg; HB: Bremen; HH: Hamburg; HE: Hesse; MV: Mecklenburg-Western Pomerania; NI: Lower Saxony; NW: North Rhine-Westphalia; RP: Rhineland-Palatinate; SL: Saarland; SN: Saxony; ST: Saxony-Anhalt; SH: Schleswig-Holstein; TH: Thuringia; moe: margin of error; p: expected proportion value of a parameter; z: permissible error probability. Due to rounding some sums may not add up perfectly.



Table A.0-4: Sampling Design of the ERIK-Survey 2022: Pedagogical Staff

	BW	BY	BE	BB	HB	HH	HE	MV	NI	NW	RP	SL	SN	ST	SH	TH	Total
<b>2020</b>																	
Gross sample (number of questionnaires)	4.800	4.800	2.400	3.005	1.195	1.195	3.600	2.401	3.600	4.801	3.005	1.195	3.005	3.005	3.005	3.005	48.017
Valid questionnaires (n)	952	1.212	247	511	185	98	739	309	703	908	767	229	518	394	476	466	8.714
Share n / gross sample (n %)	20	25	10	17	15	8	21	13	20	19	26	19	17	13	16	16	17
<b>2022</b>																	
Size of the population 2021 (N)	87.556	88.551	31.435	16.935	5.277	16.503	47.145	10.254	53.502	113.918	30.490	6.238	27.843	14.697	19.265	14.279	583.888
Number of Centres 2021	9.358	9.308	2.787	1.611	471	1.163	4.415	1.011	5.887	11.115	2.509	473	2.816	1.414	1.842	1.343	57.523
Size of the population per institution 2021	9	10	11	11	11	14	11	10	9	10	12	13	10	10	10	11	11
Sample sizes needed (z=1.96; moe=0.05; p=0.5)	384	384	384	384	358	384	384	384	384	384	384	362	384	384	384	384	6.098
Sample sizes needed +5% (Covid-19-Pandemic)	404	404	404	404	377	404	404	404	404	404	404	381	404	404	404	404	6.419
Gross sample needed in 2022 (approx. combination of participation and DIR-distribution probability of 2020)	2.039	1.602	3.929	2.378	2.435	4.931	1.970	3.142	2.071	2.138	1.584	1.988	2.346	3.084	2.553	2.608	40.798
Centres needed in 2022 (= DIR gross)	1.230	1.078	1.575	1.271	813	1.761	1.263	1.402	1.246	1.208	958	888	1.053	1.491	1.347	1.230	19.814
Centres needed in 2022 (= DIR gross, corrected for >100%)	1.230	1.078	1.575	1.271	471	1.163	1.263	1.011	1.246	1.208	958	473	1.053	1.414	1.347	1.230	17.991
Share gross needed / size of the population (N)	2	2	12	14	46	30	4	31	4	2	5	32	8	21	13	18	16
Share centres needed (corrected for >100%) / number of centres	13	12	57	79	100	100	29	100	21	11	38	100	37	100	73	92	31
<b>Number of Questionnaires per Institution</b>																	
X questionnaires (Q) needed per centre (round down)	1	1	2	1	5	4	1	3	1	1	1	4	2	2	1	2	2
Centres with X Q	421	555	795	165	391	884	556	902	421	277	332	377	812	1.158	141	1.083	9.269
Centres with X+1 Q	809	523	780	1.107	80	279	707	109	825	930	626	96	241	256	1.206	147	8.722
Centres with 1 PST Q	421	555	0	165			556		421	277	332				141		2.868
Centres with 2 PST Q	809	523	795	1.107			707	902	825	930	626		812	1.158	1.206	1.083	10.580
Centres with 3 PST Q								109				377	241	256		147	2.326
Centres with 4 PST Q					391	884						96					1.370
Centres with 5 PST Q					80	279											766
Centres with 6 PST Q																	80
Mode:																	
Paper and online questionnaire (80%)	1.631	1.281	3.143	1.902	1.948	3.945	1.576	2.514	1.657	1.711	1.267	1.590	1.877	2.467	2.042	2.086	32.638
Only online questionnaire (20%)	408	320	786	476	487	986	394	628	414	428	317	398	469	617	511	522	8.160
<b>Ideal Sample Size 2022 (Formula 1)</b>																	
Ideal n with alpha=0.05; moe=0.05; p=0.5	382	383	380	376	358	375	381	370	381	383	379	362	379	374	377	374	6.015
Ideal n with alpha=0.05; moe=0.05; p=0.4	367	367	365	361	345	361	366	356	366	368	364	348	364	360	362	360	5.779
Ideal n with alpha=0.05; moe=0.05; p=0.3	322	322	319	317	304	317	321	313	321	322	319	307	319	316	317	316	5.070
Ideal n with alpha=0.05; moe=0.05; p=0.2	245	245	244	242	235	242	245	240	245	245	244	237	244	242	243	242	3.879
Ideal n with alpha=0.05; moe=0.05; p=0.1	138	138	138	137	135	137	138	136	138	138	138	135	138	137	137	137	2.195
Ideal n with alpha=0.05; moe=0.05; p=0.05	73	73	73	73	72	73	73	72	73	73	73	72	73	73	73	73	1.163
<b>Ideal Sample Size 2022 (Formula 2, if n/N &lt; 0.05)</b>																	
Ideal n with alpha=0.05; moe=0.05; p=0.5	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384
Share of the population 2021 (n/N)	0	0	1	2	7	2	1	4	1	0	1	6	1	3	2	3	1

States where Formula 1 was used

Note: Abbreviations: BW: Baden-Wuerttemberg; BY: Bavaria; BE: Berlin; BB: Brandenburg; HB: Bremen; HH: Hamburg; HE: Hesse; MV: Mecklenburg-Western Pomerania; NI: Lower Saxony; NW: North Rhine-Westphalia; RP: Rhineland-Palatinate; SL: Saarland; SN: Saxony; ST: Saxony-Anhalt; SH: Schleswig-Holstein; TH: Thuringia; moe: margin of error; p: expected proportion value of a parameter; z: permissible error probability. Due to rounding some sums may not add up perfectly.

Table A.0-5: Sampling Design of the ERIK-Survey 2022: Family Day-Care Workers

	BWBYBEBBHBHHHEHVMVNIWNWRPRLSNSTSHTH																Total
2020																	
Gross sample (number of questionnaires)	2.784	1.576	544	238	171	490	1.645	441	2.838	7.595	583	58	438	77	558	112	20.148
Valid questionnaires (n)	452	283	42	43	22	47	235	55	526	1.549	112	3	168	12	71	29	3.649
Share of n / gross (in %)	16	18	8	18	13	10	14	12	19	20	19	5	38	16	13	26	18
2022																	
Size of the population 2021 (N)	6.512	3.425	1.601	991	264	847	2.870	906	6.038	15.586	1.505	270	1.660	190	1.837	280	44.782
Number of youth offices 2021	46	96	12	18	2	7	33	8	54	186	41	6	13	14	16	23	575
Size of the population per WVO 2021	142	36	133	55	132	121	87	113	112	84	37	45	128	14	115	12	78
Sample sizes needed (z=1.96; moe=0.05; p=0.5)	363	346	310	277	157	265	339	270	361	384	306	159	312	127	318	162	4.446
Sample sizes needed + 5% (Covid-19+Pandemic)	382	364	326	292	165	278	357	284	380	404	322	167	329	134	335	171	4.680
Gross sample needed in 2022 (approx. participation probability 2020)	2.352	2.025	4.226	1.614	1.282	2.903	2.497	2.279	2.052	1.983	1.678	3.232	857	860	2.630	659	25.842
WVO needed in 2022 (approx. WVO distribution probability 2020)	17	57	32	29	10	24	29	20	18	24	46	72	7	63	23	54	524
Share gross needed / size of the population (N)	36	59	264	163	486	343	87	252	34	13	111	1.197	52	453	143	235	58
Share WVO needed / number of WVO	36	59	264	163	486	343	87	252	34	13	111	1.197	52	453	143	235	91
Gross needed in 2022 (corrected for >100%)	2.352	2.025	1.601	991	264	847	2.497	906	2.052	1.983	1.505	270	857	190	1.837	280	20.457
WVO needed in 2022 (approx. Distribution probability 2020, corrected for >100%)	17	57	12	18	2	7	29	8	18	24	41	6	7	14	16	23	298
Expected sample sizes (corrected gross / share n 2020)	382	364	124	179	34	81	357	113	380	404	289	14	329	30	234	73	3.385
Mode:																	
Option 1 WVO: Paper and online questionnaire (5%)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
Option 2 WVO: Only online questionnaire (via mail) (49%)	8	27	6	9	1	3	14	4	9	12	20	3	4	7	8	11	146
Option 3 WVO: Only online questionnaire (via email) (45%)	7	27	5	8		3	13	3	8	11	20	2	3	6	7	11	134
Option 4 WVO: Only online questionnaire (via email) (supplement)	30	41					5		36	162			5				279
Option 1 FDW: Paper and online questionnaire (7%)	142	36	133	55	132	121	87	113	112	84	37	45	128	14	115	12	1.365
Option 2 FDW: Only online questionnaire (via mail) (49%)	1.133	963	801	496	132	363	1.218	453	1.006	1.097	734	135	511	95	919	134	10.097
Option 3 FDW: Only online questionnaire (via email) (44%)	991	963	667	440		363	1.131	340	895	922	734	90	383	81	804	134	8.938
Option 4 FDW: Only online questionnaire (via email) (supplement)	4.160	1.400					373		3.986	13.603			803				24.325
Expected sample sizes of FDW ((corrected gross / share n 2020 + option 4)	1.057	615	124	179	34	81	410	113	1.119	3.179	289	14	637	30	234	73	7.791
Ideal Sample Size 2022 (Formula 1)																	Total
Ideal n with alpha=0.05; moe=0.05; p=0.5	363	346	310	277	157	265	339	270	361	375	306	159	312	127	318	162	4.446
Ideal n with alpha=0.05; moe=0.05; p=0.4	349	333	300	269	154	257	327	262	348	360	296	156	302	126	307	159	4.306
Ideal n with alpha=0.05; moe=0.05; p=0.3	308	295	269	244	145	234	290	238	306	316	266	147	270	120	275	150	3.873
Ideal n with alpha=0.05; moe=0.05; p=0.2	237	229	213	197	128	191	227	194	236	242	211	129	214	107	217	131	3.104
Ideal n with alpha=0.05; moe=0.05; p=0.1	135	133	127	121	91	119	132	120	135	137	127	92	128	80	129	93	1.900
Ideal n with alpha=0.05; moe=0.05; p=0.05	72	71	70	68	57	67	71	68	72	73	70	58	70	53	70	58	1.068
Ideal Sample Size 2022 (Formula 2 if n/N < 0.05)																	
Ideal n with alpha=0.05; moe=0.05; p=0.5	394	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384	384
Share of the population 2021 (n/N)	6	10	19	28	59	31	12	30	6	2	20	59	19	67	17	58	10

Share gross needed/N > 100% States where Formula 2 was used

Note: Abbreviations: BW: Baden-Wuerttemberg; BY: Bavaria; BE: Berlin; BB: Brandenburg; HB: Bremen; HH: Hamburg; HE: Hesse; MV: Mecklenburg-Western Pomerania; NI: Lower Saxony; NW: North Rhine-Westphalia; RP: Rhineland-Palatinate; SL: Saarland; SN: Saxony; ST: Saxony-Anhalt; SH: Schleswig-Holstein; TH: Thuringia; moe: margin of error; p: expected proportion value of a parameter; z: permissible error probability. Due to rounding some sums may not add up perfectly.

Table A.0-6: **Sampling Design of the ERIK-Survey 2022: Youth Welfare Offices**


	BW	BY	BE	BB	HB	HH	HE	MV	NI	NW	RP	SL	SN	ST	SH	TH	Total
<b>2020</b>																	
Gross sample (number of questionnaires)	46	96	12	18	2	7	33	8	54	186	41	6	13	14	16	23	575
Valid questionnaires (n)	33	63	9	11	1	4	18	2	37	127	26	4	8	11	6	21	381
Share of n / gross (in %)	72	66	75	61	50	57	55	25	69	68	63	67	62	79	38	91	66
<b>2022</b>																	
Size of the population 2021 (N)	46	96	12	18	2	7	33	8	54	186	41	6	13	14	16	23	575
Sample sizes needed (z=1.96; moe=0.05; p=0.5)	41	77	12	17	2	7	30	8	47	126	37	6	13	14	15	22	474
Sample sizes needed + 5% (Covid-19-Pandemic)	43	81	12	18	2	7	32	8	50	132	39	6	13	14	16	23	499
Gross sample needed in 2022	60	123	16	30	4	13	59	33	73	194	62	9	22	18	43	25	752
Share gross needed / size of the population (N)	131	129	136	165	210	181	178	414	135	104	150	156	166	130	270	109	131
Gross needed in 2022 (corrected for >100%)	46	96	12	18	2	7	33	8	54	186	41	6	13	14	16	23	575
Expected sample sizes (corrected for gross / share n 2020)	33	63	9	11	1	4	18	2	37	127	26	4	8	11	6	21	381
Mode:																	
Paper and online questionnaire (100%)	46	96	12	18	2	7	33	8	54	186	41	6	13	14	16	23	575
Only online questionnaire																	
<b>Ideal Sample Size 2022 (Formula 1)</b>																	
Ideal n with alpha=0.05; moe=0.05; p=0.5	41	77	12	17	2	7	30	8	47	126	37	6	13	14	15	22	474
Ideal n with alpha=0.05; moe=0.05; p=0.4	41	76	12	17	2	7	30	8	47	124	37	6	13	14	15	22	470
Ideal n with alpha=0.05; moe=0.05; p=0.3	40	74	12	17	2	7	30	8	46	118	36	6	13	13	15	22	460
Ideal n with alpha=0.05; moe=0.05; p=0.2	39	69	11	17	2	7	29	8	44	106	35	6	12	13	15	21	436
Ideal n with alpha=0.05; moe=0.05; p=0.1	35	57	11	16	2	7	27	8	39	80	32	6	12	13	14	20	377
Ideal n with alpha=0.05; moe=0.05; p=0.05	28	42	10	15	2	6	23	7	31	53	26	6	11	12	13	18	304

Share gross needed/N > 100%

Note: Abbreviations: BW: Baden-Wuerttemberg; BY: Bavaria; BE: Berlin; BB: Brandenburg; HB: Bremen; HH: Hamburg; HE: Hesse; MV: Mecklenburg-Western Pomerania; NI: Lower Saxony; NW: North Rhine-Westphalia; RP: Rhineland-Palatinate; SL: Saarland; SN: Saxony; ST: Saxony-Anhalt; SH: Schleswig-Holstein; TH: Thuringia; moe: margin of error; p: expected proportion value of a parameter; z: permissible error probability. Due to rounding some sums may not add up perfectly.

Table A.0-7: **Sampling Design of the Erik-Survey 2022: Providers of Childcare Centres**

	BW	BY	BE	BB	HB	HH	HE	MV	NI	NW	RP	SL	SN	ST	SH	TH	Total
<b>2020</b>																	
Gross sample (number of questionnaires)	2814	1.967	270	545	126	200	893	529	1.197	2.917	1.343	146	644	455	291	605	14.942
Valid questionnaires (n)	338	300	53	69	22	24	139	44	149	333	136	22	108	49	41	62	1.889
Share n / gross sample (in %)	12	15	20	13	17	12	16	8	12	11	10	15	17	11	14	10	13
<b>2022</b>																	
Size of the population 2021 (N)	3.194	4.570	1.223	701	221	526	1.534	407	1.966	3.530	1.125	98	861	366	810	492	21.624
Sample sizes needed (z=1.96; moe=0.05; p=0.5)	343	354	293	248	141	222	307	198	322	347	287	78	266	188	261	216	4.070
Sample sizes needed + 5% (Covid-19-Pandemic)	361	373	308	261	148	234	324	208	338	365	302	82	280	198	275	227	4.284
Gross sample needed in 2022	3.006	2.446	1.569	2.065	847	1.950	2.079	2.504	2.719	3.195	2.979	547	1.669	1.834	1.948	2.218	33.884
Share gross needed / size of the population (N)	94	54	128	295	383	371	136	615	138	91	265	558	194	501	241	451	157
Gross needed in 2022 (corrected for >100%)	3.006	2.446	1.223	701	221	526	1.534	407	1.966	3.195	1.125	98	861	366	810	492	18.578
Expected sample sizes (corrected for gross / share n 2020)	361	373	240	89	39	63	239	34	245	365	114	15	144	39	114	50	2.524
Mode - distribution to N (complete population survey):																	
Paper and online questionnaire (95%)	160	229	61	35	11	26	77	20	98	177	56	5	43	18	41	25	1.081
Only online questionnaire (5%)	3.034	4.342	1.162	666	210	500	1.457	387	1.868	3.354	1.069	93	818	348	770	467	20.543
<b>Ideal Sample Size 2022 (Formula 1)</b>																	<b>Total</b>
Ideal n with alpha=0.05; moe=0.05; p=0.5	343	354	293	248	141	222	307	198	322	347	287	78	266	188	261	216	4.070
Ideal n with alpha=0.05; moe=0.05; p=0.4	331	341	284	242	138	217	297	194	311	334	278	78	258	184	254	211	3.951
Ideal n with alpha=0.05; moe=0.05; p=0.3	293	301	255	221	131	200	267	180	277	296	251	75	235	172	231	195	3.582
Ideal n with alpha=0.05; moe=0.05; p=0.2	228	233	205	182	117	168	212	154	219	230	202	70	191	147	189	164	2.911
Ideal n with alpha=0.05; moe=0.05; p=0.1	133	134	124	116	85	110	127	103	129	133	123	58	119	101	118	108	1.822
Ideal n with alpha=0.05; moe=0.05; p=0.005	71	72	69	66	55	64	70	62	70	72	69	42	67	61	67	64	1.041

 Share gross needed/N > 100%

Note: Abbreviations: BW: Baden-Wuerttemberg; BY: Bavaria; BE: Berlin; BB: Brandenburg; HB: Bremen; HH: Hamburg; HE: Hesse; MV: Mecklenburg-Western Pomerania; NI: Lower Saxony; NW: North Rhine-Westphalia; RP: Rhineland-Palatinate; SL: Saarland; SN: Saxony; ST: Saxony-Anhalt; SH: Schleswig-Holstein; TH: Thuringia; moe: margin of error; p: expected proportion value of a parameter; z: permissible error probability. Due to rounding some sums may not add up perfectly.

# ERiK-Methodological Report III

## Conceptualisation and Design of the ERiK-Surveys 2022

The ERiK-Methodological Report III is the third in a series of methodological reports related to the ‘Entwicklung von Rahmenbedingungen in der Kindertagesbetreuung – indikatorengestützte Qualitätsbeobachtung (ERiK)’ study. The report focuses on the conception, sample selection, and survey designs of the ERiK-Surveys 2022. Together with the ERiK-Methodological Report I and II, that cover the ERiK Surveys 2020, it provides comprehensive background information on the ERiK-Surveys conducted in 2022 and describes their progression until December 31, 2021. The subsequent steps, such as implementing the ERiK-Surveys 2022, will be described in a later report.

### **Researching children, youth, and families at the intersection of science, policy, and professional practice**

The German Youth Institute (DJI) is one of the largest social science research institutes in Europe with an experience of over 60 years. The DJI conducts empirical studies into the life situations of children, young people and families, and provides policy advice to the German national government, the German federal states and local authorities as well as key impulses for professional practice.

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