

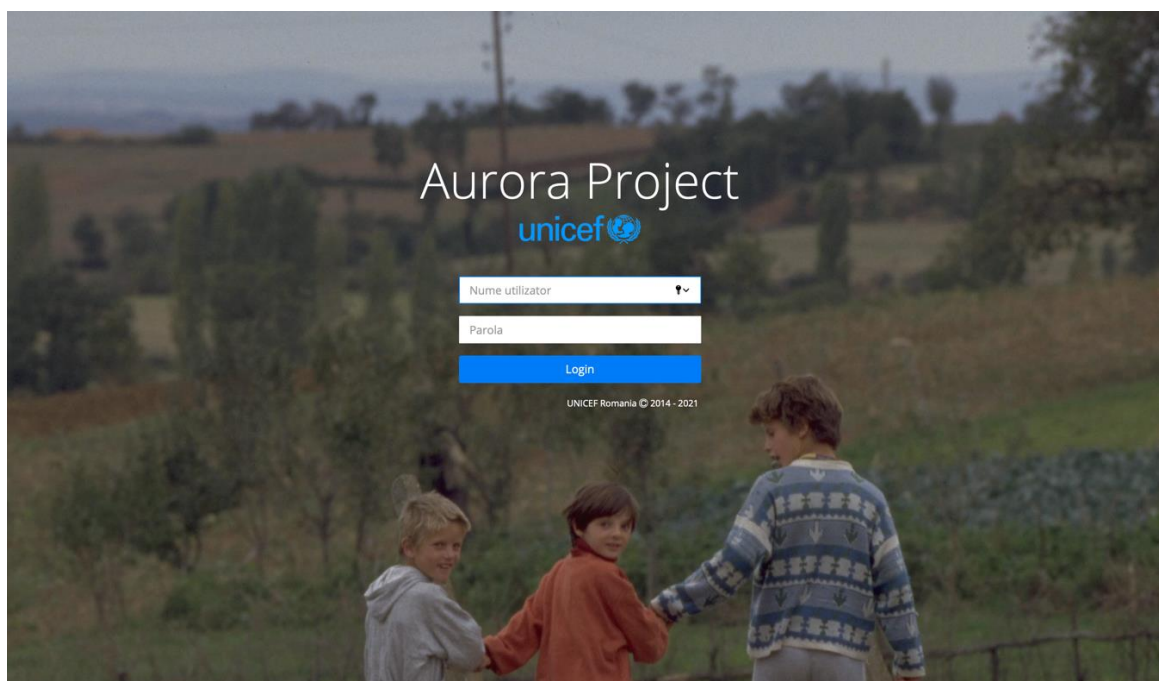


Direct registration

Case Work

Vulnerable children  
and their families

## Romania – Aurora Project



### Information system description

Aurora is a child protection platform developed by UNICEF Romania to support the implementation of the UNICEF Minimum Package of Services (MPS) model. The platform enables community workers in identifying vulnerable children, assess the vulnerabilities of children and their families, manage cases and services provided, and monitor and integrate social workers' and other community workers' activities at the local level.

### Initial challenge

Aurora was developed by UNICEF Romania in 2014 as an easy-to-use Android application and web platform that allows for the identification and case management of vulnerable children and their families (including the provision of basic services, monitoring and evaluation). The initial challenge was to better understand the threats faced by the "invisible" children from the poorest communities in Romania and to address them through an integrated response.

## Results

The CMIS was initially used in rural communities in 8 counties of North-East Romania. Starting in 2015, Aurora was deployed in **45 rural and urban localities** from Bacău County as supporting infrastructure in the Minimum Package of Services (MPS) model. Until now, in Bacău County, 48,247 households with a total of 118,197 persons, out of which 49,473 children have been assessed, supported and continuously monitored. As a result of successfully piloting the MPS model, in 2020 the Social Assistance Law No 292/2011 was modified by introducing the minimum package of services for children and families at the national level (taking over the UNICEF MPS model and Aurora). Currently, the legislative framework for the UNICEF MPS model (using Aurora) is adopted by law, but procedures, financing and actual implementation at the national level are still pending.

### ENTRY POINT: Direct registration performed by social workers

The entry point in Aurora is direct registration performed by the social workers. In the first phase, a community census of households with children is carried out. Information about all families with children is registered in Aurora. Based on the data collected, the children's and the household's vulnerabilities are assessed. Corresponding to the identified needs, the vulnerable children and their families receive a dedicated package of services (of basic, integrated services in health, education, and social/child protection).<sup>1</sup> Most services are targeted to children, yet some are addressed to parents or other adults in the household, such as pregnant women.

### LEVEL OF CASE MANAGEMENT: Case work

Aurora supports local teams of social, health, and education workers throughout their case management process. It facilitates assessment of risks faced by children and their families, provision of services (information, counseling, accompaniment, assistance), referral to additional/specialized services, monitoring of beneficiary families, and facilitation of multi-professional teams' intervention. It also integrates a second coordination layer with county supervisors and a national layer for monitoring and evaluation.

### POPULATION GROUP SERVED: Vulnerable children and their families

Aurora facilitates the case management of vulnerable children and their families, from needs assessment to providing a minimum package of services and monitoring and evaluation.

CMIS existing and active?

Yes, as a UNICEF pilot project (deployed currently in one county)

<sup>1</sup> Aurora is the platform that supports the implementation of the Minimum Package of Services (MPS) model developed by UNICEF Romania. MPS focuses on two elements: (1) basic (and in most cases preventive) services provided at the level of the community by the social worker, community nurse and the school counselor and (2) the integration of these services based on the strong cooperation of these three professionals (UNICEF, 2018, *Summative evaluation of the Minimum Package of Services component of the "Social inclusion through the provision of integrated social services at community level" modelling project in Romania, 2014-2018*).

<b>Year of launch:</b>	2015 <sup>2</sup>
<b>Registered operators (all unique users):</b>	about 300 community workers and professionals from 45 rural and urban communities in Bacău County <sup>3</sup> and in Braşov Municipality.
<b>Beneficiaries supported by AURORA:</b>	In Bacău County, 48,247 households with a total of 118,197 persons, out of which 49,473 children have been assessed. <sup>4</sup> The percentage of vulnerable children in 2021 is about 40% of all assessed children, declining from a high 70% reported in the 2018 AURORA project evaluation study. These vulnerable children targeted by the minimum package of services accounted, in 2018, 0.5% of the total population of children in Romania and over 15% of the total population of children in Bacău County.
<b>URL:</b>	<a href="https://www.auroraproject.ro/#/login">https://www.auroraproject.ro/#/login</a>
<b>URL for public access:</b>	<a href="https://www.auroraproject.ro/#/landing">https://www.auroraproject.ro/#/landing</a>

### CONTEXT FOR DEVELOPING AURORA

In 2011, UNICEF Romania launched the “First Priority: No More Invisible Children!” project to improve the impact of social services for the country’s poorest and most excluded children who are often “invisible” to the child protection system. In the early phases of the project, UNICEF Romania identified 5,758 such “invisible children” and sought to understand the threats facing them. Starting from these findings, in 2014, UNICEF Romania developed Aurora, an easy-to-use application and platform that allowed for the identification and case management of vulnerable children and their families (including provision of basic services, monitoring and evaluation) in an efficient and effective manner. The system was used initially in rural communities from 8 counties of the North-East Romania. Starting with 2015, Aurora was deployed in 45 communities (rural and urban) from Bacău County as supporting infrastructure in the Minimum Package of Services (MPS) model promoted by UNICEF. Starting with 2019, Aurora is used in a new modeling project covering 11 communities in Bacău County and Braşov Municipality, building up a new layer of specialized services organized in the Integrated Community Centre (ICCs) to which the community workers can refer the most vulnerable children.

As a result of successfully piloting the Minimum Package of Services (MPS) model in Bacău County, in 2020 the Social Assistance Law No 292/2011 was modified by introducing the minimum package of services for children and families at the national level (taking over the UNICEF MPS model and Aurora).

**Currently, the legislative framework for the UNICEF MPS model (using Aurora) is adopted by law, but procedures, financing and actual implementation at the national level are still pending.**

<sup>2</sup> AURORA was initially developed in 2014 as part of „Helping the invisible children” UNICEF project. Following an early pilot engagement in 2014 in 8 counties of the North-East, a major rollout occurred in Bacău County in 2015.

<sup>3</sup> The 45 communities are part of 38 localities, 4 urban and 34 rural.

<sup>4</sup> Out of the assessed population, as of November 2021, 10,652 households and 19,558 children are reported as being vulnerable. <https://www.auroraproject.ro/#/login>

## I. National context

### 1. Institutional context

<b>National level</b>	The Ministry of Labor and Social Protection (MMPS) The National Authority for the Protection of Children's Rights and Adoption (ANPDCA)
<b>County level</b>	The General Directorates for Social Assistance and Child Protection (DGASPC), as a public social assistance service having a legal personality, operates as subordinated to the county councils and, respectively, the local councils of the Bucharest districts. The responsibilities and the framework regulations for the organization and the operation of the DGASPC are approved by Government Decision. <sup>5</sup> The organizational structure, staff numbers and funding of the DGASPC is approved by decision of the county council/local council of the Bucharest district that has established the DGASPC.
<b>Local level</b>	Local public administration authorities carry out their responsibilities set forth by the law in the area of the protection and promotion of the rights of the child through the public social services (DGASPC at county and Bucharest district level, and SPAS at the level of municipalities, towns and communes).

### 2. Provision of social benefits and services

The **delivery of social services** in Romania mirrors the country's multi-level governance structure. Romania's more than 3,000 administrative-territorial units (municipalities) are responsible for providing social services. According to the law<sup>6</sup> every local authority needs to establish public social assistance services (SPAS). However, over one-third (34 percent) of local authorities in rural areas and 8 percent in very small cities (those with fewer than 10,000 inhabitants) had not set up the relevant services but had instead added the social assistance responsibilities to the existing staff (in some cases, professionals unrelated to social assistance). This proportion varies widely from 47 percent of small communes (those with fewer than 2,000 inhabitants) to 18 percent of the large ones (those with 5,000 inhabitants or more).<sup>7</sup>

According to the law, social services in Romania are provided by **professional social workers or social technicians**.<sup>8</sup> However, according to the National College of Social Workers data for the year 2021, while 10,235 social workers are registered in Romania, only 30% of them have specialized education in social

<sup>5</sup> Namely Government Decision no. 797/201 to approve the framework regulations for the organization and operation of the public social services and the indicative staff structure.

<sup>6</sup> Law 292/2011 on social assistance.

<sup>7</sup> Teșliuc et al. (coord.) *Background study for the National Strategy for Poverty Reduction and Social Inclusion, 2015-2020*, World Bank.

<sup>8</sup> Law 466/2004. Law 292 and Occupational Standard Social Work Technician COR Code 341201.

work.<sup>9</sup> Furthermore, there are significant disparities between rural and urban localities. This data is consistent with the WB census of SPAS information (2014) which showed that public social assistance services are severely understaffed, especially in rural and small urban areas. In most rural communities, there are just one or two staff members with social assistance duties (and very few professional social workers) to meet the needs of a population usually spread over 2 to 40 villages, which are often located many kilometers apart. In small urban areas (those with fewer than 20,000 inhabitants), SPAS typically consists of one professional social worker and an additional two to three social technicians.

In large cities with over 50,000 inhabitants, the average number of employees per SPAS increases. In fact, in all large cities, SPAS also includes a spectrum of social services, such as social canteens, daycare centers, shelters for homeless people, and social housing. Consequently, in rural and small urban areas, the lack of human resources and a limited local budget to finance social assistance activities means minimal capacity for assessing and developing social services.

In 2021, at the initiative of the National College of Social Workers and with the support of UNICEF, four major universities from Romania signed an agreement to increase the number of social workers, particularly in rural areas, and to make it easier for social workers already working to access specialized higher education. The main objective of the agreement is that, by 2030, the provision of complex social services be carried out only by social workers, as defined in Law 466/2004, to ensure the appropriate quality of these services.

On the **mapping of services** at the local level, there is not much information available. At the moment, there is no national mapping of the myriad of benefits and services offered at the local level. However, the list of accredited social service providers and social services licensed under Law No 197/2012 is available and updated monthly in the unique electronic register managed by the Ministry of Labor.<sup>10</sup> In addition, other efforts to map these services have been made in diverse and unrelated projects.<sup>11</sup>

### 3. Provision of Case Management Services

The UNICEF MPS model (using Aurora) is not yet used/implemented at national level.

Currently, in Romania, case management is applied mainly for:

- i. children in the child protection system and
- ii. for the protection of adult people with disabilities.
- iii. children that are victims of abuse, neglect, and/or exploitation, including victims of trafficking, labor exploitation, and sexual exploitation

The three areas are regulated by different normative acts.<sup>12</sup>

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<sup>9</sup> <https://www.edupedu.ro/patru-mari-universitati-au-incheiat-un-acord-pentru-cresterea-numarului-de-locuri-de-asistenti-sociali-cel-putin-500-de-locuri-vor-fi-disponibile-la-nivel-national-70-dintre-angajatii-din-sistemul-d/>

<sup>10</sup> <https://www.servicii-sociale.gov.ro/ro/registrul-electronic-unic>

<sup>11</sup> <https://servicii-sociale.gov.ro/ro/index>

<sup>12</sup> Order No 288/2006 approving the Minimum Mandatory Standards for Case Management in the field of Child Rights Protection and Order No 1218/2019 of 9 August 2019 for the approval of the Specific Minimum Mandatory Quality Standards for the application of the case management method in the protection of adults with disabilities and Standard Methodology of 19 January 2011 on prevention and intervention in multidisciplinary teams and networks in situations of violence against children and domestic violence.

Take, for example, the case management for children in the child protection system.<sup>13</sup> All children under protection, all disabled children registered with the complex evaluation service of the General Directorates for Social Assistance and Child Protection (DGASPC) at county level, and all child victims of abuse, neglect, and/or exploitation in the records of the DGASPC have a case manager assigned to them.<sup>14</sup>

The case manager (CM) is the professional who ensures coordination of social assistance and special protection activities carried out for the best interest of the child. The main purpose of these activities is to develop and implement:

- An individualized protection plan for children separated from their families;<sup>15</sup>
- A recovery plan for disabled children. For disabled children in special protection – namely children placed with the extended family, a substitute family (placement families and maternal assistants) or in residential services – the case managers shall fill in the individualized protection plan, which includes the recovery plan;
- Rehabilitation and/or social integration plan for child victims of abuse, neglect, and/or exploitation, including victims of trafficking, labor exploitation, and sexual exploitation for commercial purposes.<sup>16</sup> For these categories of children, the case managers shall fill in the individual protection plan, which includes the rehabilitation and/or social reintegration plan.

The case manager monitors the implementation of the individualized protection plan or, as applicable, the other plans specified in the law. He or she also monitors the progress in solving the child's situation. This continues until the assistance and/or protection process proves to be no longer needed. In addition, the case manager<sup>17</sup> together with the multidisciplinary team, re-evaluate the child once every three months (or whenever necessary) and revise the plan accordingly.

Social service providers must ensure the internal and external supervision of the CM. Internal supervision means that at least once a month, coordinators of the services organize internal supervision meetings with the CM, individually and in teams, as well as meetings upon their request. External supervision is performed by specialists with higher education in socio-humanities or medical domains, with at least five years' experience in child and family services, training in supervision, and at least two years more experience in child and family services than in the persons they provide supervision for.

#### 4. Supporting Tools for case management services and IT infrastructure

There are no integrated case management services and/or IT infrastructure serving case management in Romania. The social assistance processing system relies heavily on paper documents. The local

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<sup>13</sup> Information extracted from Stănculescu (coord.) 2021, *Public policy report on the improvement and diversification of alternative services in the child protection system*, World Bank.

<sup>14</sup> The responsibilities and the activities performed by case managers are detailed in Order no. 288/2006, approving the minimum mandatory standards for case management in the field of child protection.

<sup>15</sup> This is provided under art. 53 of Law no. 272/2004 on the protection and promotion of the rights of the child.

<sup>16</sup> As defined under art. 92 of Law no. 272/2004.

<sup>17</sup> In the situations in which a case manager is not available, the case is managed by a case responsible who takes over some of the case manager responsibilities.



authorities follow different guidelines and/or use different case management tools for various programs. These tools may be in paper or spreadsheet form, and in some cases, other software platforms may also support them. Thus, the picture is varied and largely unmapped.

A recent report (2018) released by the Ministry of Labor and Social Protection<sup>18</sup> showed that less than 45% of the Social Assistance Public Services use software to manage/keep record of the local social benefits and services provision. The type of software used varies from one locality to another and are not nationally integrated.

The need for an integrated social assistance system/platform (including to facilitate case management) is recognized by the public authorities at all levels (local, county, national). The World Bank provided recommendations starting with 2015 within the National Strategy for Poverty Reduction and Social Inclusion. The 2018 Ministry of Labor and Social Protection report cited above reinforces this recommendation.

## 5. Collaboration mechanisms (as related to case management)

Case management in Romania is used as a working method mainly for the children in the child protection system and for persons with disabilities. World Bank recent studies showed that, in general, the case management is applied in particular to children who benefit from a special protection measure and for institutionalized persons with disabilities and less frequently for children/persons with disabilities living in the community.

## 6. Information and technology

Currently, there is no unified CMIS for any national social program implemented in Romania.

SINA (National Integrated Systems for Adoption) is one of the projects that aims to integrate the social systems focused on children,<sup>19</sup> including the case management component/approach. This system is now in the public procurement phase. SINA is managed by the National Authority for the Protection of Children's Rights and Adoption and is expected to integrate with AURORA and use the lessons learned from the UNICEF pilot project, such as lessons around response and intervention to prevent the child's separation from the family at the community level. In this sense, in 2021 a Memorandum of Understanding was signed between the National Authority for the Protection of Children's Rights and Adoption, with the scope of handover of Aurora for national scale-up.

In parallel, a separate project funded through EU funds is prepared with the aim of developing an integrated management system for persons with disabilities. However, both projects target predominantly institutionalized children/persons with disabilities and only marginally those living in the community. Furthermore, even if progress is made in developing a CMIS in Romania for different social programs, the approach in systems development is still fragmented and uncoordinated.

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<sup>18</sup> [https://mmuncii.ro/j33/images/Documente/MMPS/Rapoarte\\_si\\_studii\\_MMPS/DPSS/2018\\_-SRSS\\_-Analiza\\_capacitatii\\_SPAS\\_privind\\_TIC\\_-\\_1\\_Raport\\_final.pdf](https://mmuncii.ro/j33/images/Documente/MMPS/Rapoarte_si_studii_MMPS/DPSS/2018_-SRSS_-Analiza_capacitatii_SPAS_privind_TIC_-_1_Raport_final.pdf)

<sup>19</sup> Unlike the currently available programs – such as CMTIS – that consider only the children in the child protection system, SINA will also record information about the children in the families that face multiple risks, including the risk of separation from their families.

Under the Recovery and Resilience National Plan, the Ministry of Labor and Social Protection is currently developing a social assistance hub, integrating all social protection national benefits and services while ensuring interoperability.

## II. Aurora in the national context

Based upon the UNICEF pilot project, in November 2020, Law No 231 was issued, which completes the Social Assistance Law No 292/2011 by introducing the minimum package of services for children and families at the national level. The normative act provides for the establishment of the minimum package of social services for children and families, delivered at local level. This minimum package of services includes basic and information services in health, education, and social protection, starting with the in-depth assessment of situations that may lead to marginalization or social exclusion. It further includes providing information, counseling, accompaniment, and assistance and monitoring.

The minimum package of services is to be provided under a national program, financed from two sources. The first source will be the state budget, through transfers to local budgets based on requests from local public administration authorities. The second source will be European non-reimbursable funds or European Economic Area (EEA) and Norwegian grants.

According to the law, the minimum package of services is provided by a mixed, multidisciplinary team, created at the locality level, made up of a social worker, a community health worker, and a school counselor. The team at the local level is supervised and methodologically coordinated by a team constituted at the county level of inspectors employed by the Public Health Directorates, the General Directorates of Social Assistance and Child Protection (DGASPC), the County School Inspectorates (ISJ), and the County Centers of Resources and Educational Assistance (CJRAE).

A dedicated and unitary online digital application will be used to register data about children and families at the level of each locality, as well as on the services provided to them within the minimum package of services. The online digital application will register the type of vulnerabilities of children in the community, the situation of their families, the individualized service plan, and how these services are provided.

However, at present, the procedures and methodologies for implementing this law is still under development. Thus, the Ministry of Labor and Social Protection, the Ministry of Health, the Ministry of Education and Research, and the Ministry of Public Finance are expected to develop:

- iv. the methodology for financing the minimum package of services for children and families;
- v. the methodology for granting the minimum package of services for children and families;
- vi. the methodology for setting up and operating the national interest program on the online application dedicated to the minimum package of services for children and families. The national program will take over AURORA as a technical solution and scale it up at the national level; as well as
- vii. the methodology for setting up and operating the service dedicated to the minimum package of services for children and families at the level of each county.

### How does the Minimum Package of Services model work?



The Minimum Package of Services (MPS) introduces an integrated model of basic services provided at community level, including health, education, social protection and child protection services for vulnerable children and their families.

The MPS requires at least one social worker, one community health worker, and one school counselor in each community. In the poorest communities, including those with a Roma population, the MPS may also include a school mediator and a health mediator (to facilitate work/collaboration with the vulnerable community). Together they identify, assess, and provide individualized support to vulnerable children and their families. These professionals work closely to support families with local actors such as the local public authorities, NGOs and other partners in the locality.

The initial identification of vulnerable children is carried out through a social census<sup>20</sup>. Information on living conditions, whether or not the child is registered with the family doctor, whether or not the child is vaccinated, whether or not the child goes to kindergarten or school, etc. and much more is registered in Aurora. Based on the identified vulnerabilities Aurora indicates the appropriate set of services and interventions (starting from a predefined list of services), facilitating the selection of services that comprehensively respond to the child's and family's needs, which can be provided by the team of professionals in the community, either through home visits or through individual and group activities in community centers, if they are available. The Aurora online platform also makes it possible to regularly monitor and re-assess the situation of children who have benefited from the Minimum Package of Services.

#### **In a nutshell:<sup>21</sup>**

- The integrated services target in particular vulnerable children and their families/primary careers.
- The working method used in the provision of integrated services is case management and involves coordination of the work of the community team in order to develop, implement, monitor the service plan; communication at the level of the community team but also communication with the professionals involved in the provision of integrated services; cross-sectoral cooperation of community workers and professionals involved in the provision of integrated services.
- The minimum package of services includes a set of seven categories of interventions provided at community level, namely: identification, needs assessment, information, counselling, accompaniment and support, referral, monitoring and evaluation.
- the service plan is drawn up within 30 days of the identification of the risk situation. The preparation of the service plan is a process that involves (i) multiple meetings of the community team members, including representatives of the local public authority (especially in the cases of children at risk of family separation), (ii) the selection of children and families from the list of identified cases to be provided with services for a specific period of time (the "active cases"), (iii) selection from the list of active cases of those cases for which the service plan will be drawn up, (iv) drawing up of the service plan by the community team (setting priorities, individual responsibilities and deadlines), (v) validation of the service plan with the family and with the Community Consultative Structure, (vi) approval of the service plan by the mayor in the case of SPAS (Public service of Social

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<sup>20</sup> In Braşov Municipality, a screening methodology was used for identification of vulnerabilities of children with disabilities and children with special educational needs.

<sup>21</sup> Based on the Intersectoral Methodology for the provision of the minimum package of services (local and county level) developed by UNICEF, <https://www.unicef.org/romania/media/4701/file/Metodologie%20de%20lucru%20integrat.pdf>

Assistance) and by the director of the institution in the case of DAS (Social Assistance Directorate).

- The service plan is implemented and monitored by a case responsible. The status of "case responsible" is assumed by the member of the community team who, by virtue of his or her professional competence, best corresponds to the specificity and/or complexity of the risk situation affecting the child and the family<sup>22</sup>. Within the framework of the service plan, the responsibilities of each community worker in relation to the provision of integrated services are determined according to: addressability and professional competences established by law and job description.
- In providing the minimum package of services at local level, the community team benefits from technical assistance and methodological support from county level.

### III. AURORA and its core modules

#### A. Core features/modules of Aurora at a glance

Standard modules/features	Aurora
Tenancy	38 local public authorities from one county and one large municipality are tenants
Operational modality	Online and offline. The offline mode is used for remote data registration (where internet is not available).
Device compatibility	Android devices (tablets) for mobile application. The Aurora platform can be accessed from any device with browser and connected to the internet.
User management	UNICEF
Logging and auditing of user actions	Every action performed on the platform is tracked.
Notifications (email, SMS)	No
Case management level	Case work
Screening	Yes, through the initial community census and/or screening. The families with children are targeted.
Profiling	No
Assessment	Yes, in-depth assessment (individual level and households for all families with children)
Intervention Plan	Yes
Meetings Management	No

<sup>22</sup> This is in line with Order No 288/2006 approving the Minimum Mandatory Standards for Case Management in the field of Child Rights Protection.

Evaluation	Every 9-months reassessment.
Referrals	Referral can be done to a list of specialized services which were mapped out in the county of Bacău. The services are outlined considering the proximity from the location of the beneficiary/ies and include contact details and other specificities (such as accessibility, etc.).
Tickets, ticketing	No
Catalogue of benefits and services	No
Upload of documents	No
Online training material	Yes, user manuals, video tutorials, e-learning modules
Help desk	Yes
FAQs	Yes

**Other standard functions:**

Beneficiaries' portal	No
Multilanguage support	No
Data warehouse	Advanced
Dashboard	Advanced

**System Architecture**

Aurora is a complex system, with multiple components that interact with each other, and was built to answer the need to monitor and evaluate the situation of children and their families, to plan the provision of services and to develop public policies to respond to the identified needs. The system was designed with both professionals working at the local level and decision makers at all levels in mind. The main components include:

1. **Mobile application** for community workers. The Aurora mobile application facilitates:
  - data collection about all members of a household – based on a questionnaire measuring widely-accepted indicators relevant to the situation of children and their families. This ensures an integrated view of the child. The assessment combines social, health, and education-related data and registers systematic information about all household members.
  - the diagnosis of vulnerabilities based on both national and international pieces of evidence and indicators, and also an integrated approach to social, health, and educational vulnerabilities.
  - the generation of the minimum package of services, a list of interventions to be carried out by community workers.
  - integrated case management, based on the entirety of data collected, so that an intervention plan may also consider the other relevant people who make decisions about and are responsible for the child.
  - real-time automatic synchronization of all data about households, people, services, and users.

The application uses GPS location to map the addresses of the households, thus providing a clear picture of households, children, and vulnerabilities distribution on the territory of the locality. It allows professionals and decision-makers to pinpoint areas based on the needs identified and to respond promptly.

The application communicates with the rest of the system via mobile internet (3G) and has offline capabilities to aid users working in areas with no internet or cellular coverage. As soon as the device reconnects to the internet, all pending data is automatically uploaded to the Aurora backend system.

## 2. **Aurora web platform:**

The web platform allows real-time access to data collected in the field at different access levels: local, regional or national. Each level has access to powerful visualizations and reports. The social workers and other community professionals (community nurse, school counselor, etc.) can access their data, plan interventions, and manage their workload with their team at the local level. The platform has case and system management functions. The case management function grants "view", "modify", and "update" functions for each case. The system management function runs various types of indicators and statistics and generates reports. Each type and level of access is allowed to perform specific tasks. The applications and the database are secured, access is granted based on user ID and password. All data collected and stored is confidential, since they are personal data of the people enrolled in and benefitting from the social and health systems. The platform allows users to export data for further, more in-depth analysis.

## 3. **Backend and infrastructure:**

The backend system is the core of Aurora and is responsible for storing data and serving it securely in various formats to other parts of the platform. It is built in Java using open-source, highly extensible, and scalable technologies. Spring Framework is at the base of the system, and its longevity and continuous development over the past 15 years have made it one of the go-to technologies for any Java-based system.

## 4. **Business Intelligence interface:**

The business analytics tool was integrated to explore the entire dataset collected (all 250+ indicators collected for a person) in various ways. The Business Analytics platform, Saiku, offers the possibility of analyzing data over time and aggregating it for more complex and customizable analysis.

## 5. **System security:**

Communication and exchange between the different modules and applications of Aurora are done securely using SSL Certificate. The system infrastructure is exclusively based on Docker containers. The system is protected from automatic attacks and possible vulnerabilities

generated by individual usage, and the database is continuously secured. Furthermore, all data available in the mobile application is encrypted on the device, with no possibility of being decrypted, thus ensuring data security in case of loss or theft.

Aurora provides all the necessary controls to capture and record user login information, manage the database of user identities, and manage the assignment and removal of access privileges. Thus, the system assures data security, and users can have different roles (that define the access privileges and available actions) and various access levels: local, county, and national. Moreover, there are other characteristics of the system that ensure security (i.e., users create strong passwords of minimum 8 characters with 2 symbols and 2 capital letters, applications force users to re-authenticate daily, etc.) that can be tightened based on the requirements and the capabilities of users.

## 6. Aurora Public:

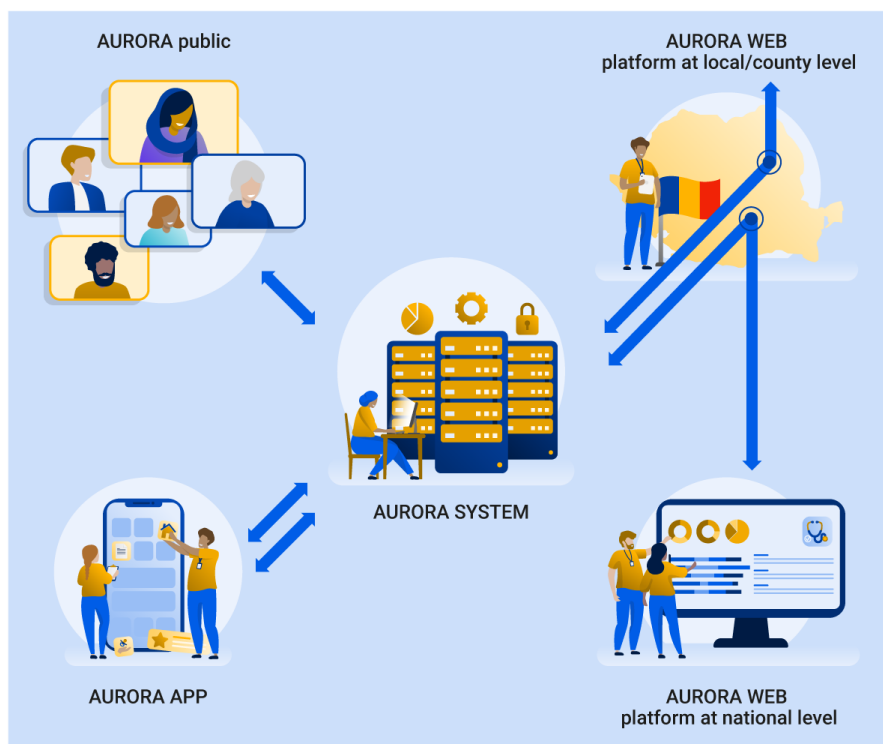
It is a web app that provides information to the general public. The data is anonymized and aggregated and can be used by scholars, NGO's and others interested.

### Aurora operational modalities

The core components of the Aurora System facilitating case management are:

- i. the mobile app
- ii. the web platform with access at the local/county and national level

All components use the Internet. The mobile application only works on portable hardware such as Android tablets. The web platform is developed to be accessible on any type of device, although, for the best user experience, it is recommended that users access Aurora from a desktop computer.



## Core features of Aurora

- case identification (in UNICEF pilots, a census at the community level was carried out)<sup>23</sup>
- needs and vulnerabilities assessment with information collected at the household level and about all households' members
- list of services/intervention plan
- case monitoring
- collaboration within the local team of specialists and with county coordinators
- data analysis and reports based on templates provided for in the national legal framework
- real-time access to aggregated and disaggregated information; internal dashboards.

## Aurora and case management

Aurora facilitates case management and supervision. On the one hand, with the help of the mobile app Aurora, the community workers

- i. identify and assess the needs of children and their families
- ii. and develop and provide basic services to address them

The information collected, the assessment results and the service plan are available on the mobile application and the web platform. On the other hand, the web platform makes the information available to the different specialists at the local, county, and national levels and reinforces collaboration and coordination for an integrated response to addressing vulnerabilities.

The UNICEF pilot project focused on establishing an enabling environment to ensure the transition from cash benefits to service provision (e.g., low-income families get help using the program for school supplies or the social voucher for kindergarten attendance, but they also receive training and guidance on parenting issues; or, in the case of families with children with special needs, they are referred to specialized institutions or services). It also supported specialists such as health community nurses and family doctors address specific problems more effectively. In addition, community workers help kindergarten or school teachers and counselors to be better informed about any children and family problems (e.g., the structure and size of the family; their socio-economic status; any present disabilities, violent behavior, or neglect; the quality of the relationship between mothers and children; the general family climate; the presence of family members with special educational needs or disabilities; levels of education and qualification; the presence of learning and reading opportunities at home, etc.).

Furthermore, the UNICEF pilot project promoted inter-sectorial work built on shared visions and action plans at the county level. In most Romanian communities, different sectors provide their services in isolation from one another. The MPS program supported by Aurora promotes an integrated services approach: various services combined to comprehensively meet an array of child development needs.

## Interaction with beneficiaries

Aurora supports the work of community workers in the interaction with beneficiaries – needs assessment, service plan, monitoring. However, beneficiaries cannot directly access Aurora.

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<sup>23</sup> In Braşov Municipality, a screening methodology was used for identification of vulnerabilities of children with disabilities and children with special educational needs.



## Data warehouse

AURORA is connected to a data warehouse hosted in the cloud hosted and administered by UNICEF.

## Dashboards

Aurora components – mobile app and web platform – allow users to register and monitor the cases individually and as aggregated indicators at different levels.

## Mobile application Aurora<sup>24</sup>

The mobile application Aurora is primarily used by the community worker in relation to the beneficiaries and is the primary tool for identification and case management.

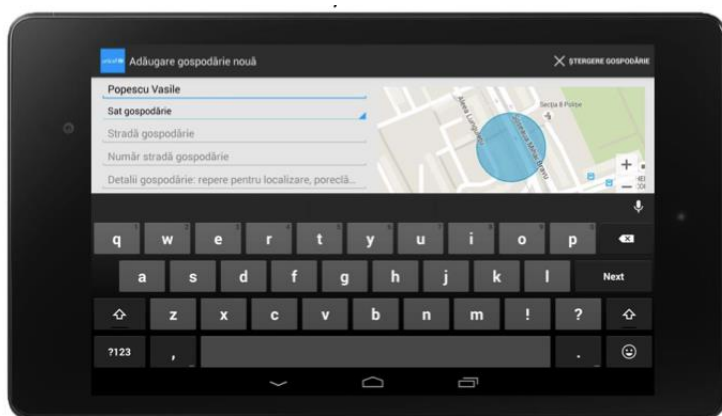
The mobile application is supported by a tablet and is connected to mobile 3G internet, allowing fieldwork – identification of children at risk and assessment of vulnerabilities – through home visits.

The AURORA mobile application supports the activity of the community workers by:

- Providing the list of households that the community worker manages. The card for the household includes the name, address, and total number of persons in the household, as well as the estimated distance from the community worker<sup>25</sup> to the address.



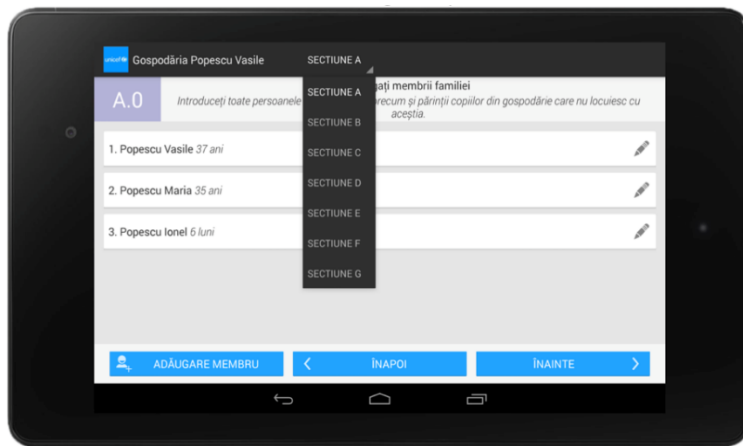
- Registering the GPS location coordinates of the household when a new case is open/registered.



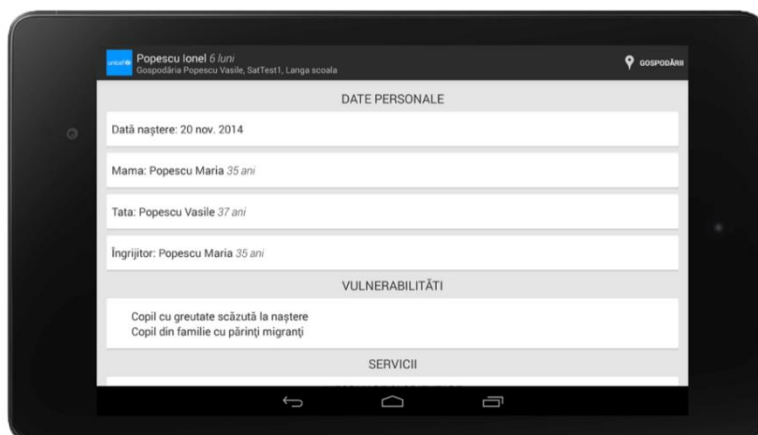
<sup>24</sup> Aurora mobile application screenshots are provided in Aurora user manual (UNICEF, 2016), <https://www.unicef.org/romania/media/4366/file/Manual%20Aurora.pdf>.

<sup>25</sup> Social worker, health worker, and/or school counselor, the professionals that are part of the team at local level.

- Structuring information to be collected about the members of the household. Each household member is introduced in the application, and socio-demographic information and specific indicators related to potential vulnerabilities are collected.



- Assessing the vulnerabilities of the children and their families. After all required information is introduced, the mobile app Aurora automatically generates the list of vulnerabilities for all the children in the household. The vulnerabilities reflect either a risk situation in which a child from the household finds itself (such as an unvaccinated child) or more general household characteristics applying to the adults (like migrant parents) or the general status of the household (child in a household in poverty).



- Generating the list of services. For each identified vulnerability in the household, the Aurora mobile app provides a list of services that should be provided. The services are targeted at children but also at the adult members of the household that need support. Cards represent services and offer the community worker a quick view of the type of service to be provided, the person in the household targeted by the service, a deadline to provide the service, and the status of delivering the specific service. Once a service is delivered, the community worker updates the delivery status as completed, and the service card turns green.



The mobile app Aurora integrates and analyses the information collected in the field and provides the assessment result and the necessary intervention for each child and household assessed. The data collected, the vulnerabilities, and the generated list of services are transferred to the web platform in real time.

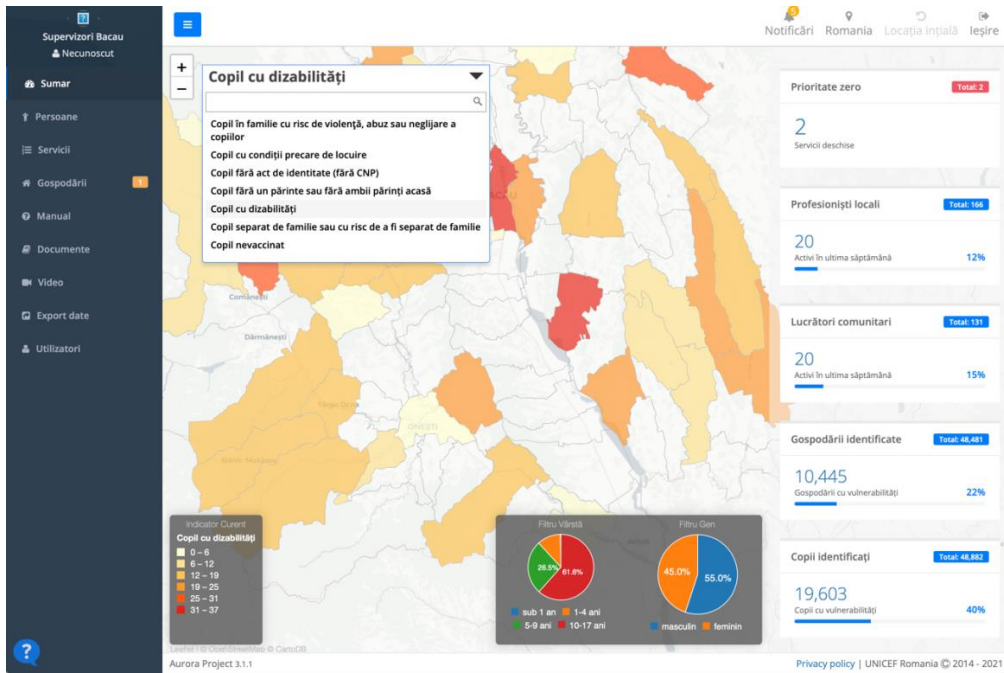
### **AURORA WEB Platform<sup>26</sup>**

The AURORA web platform feeds from the information collected through the mobile app. The platform serves the specific role for real-time monitoring of the situation in the field. It provides a space for collaboration between specialists and direct supervision/coordination (between local community workers and the county coordinators). The web platform integrates information about individuals (each person has a profile), households, and services.

Furthermore, the AURORA web platform offers information on:

- Aggregated indicators at locality/county and national levels. When accessing Aurora web, community workers can visualize a set of indicators related to the vulnerabilities of children identified in their community (summary). These indicators are also visible in aggregations at the county and national level (for different access levels/users in the platform).

<sup>26</sup> Aurora web platform screenshots were included in the present document with the agreement UNICEF team.



- List of households assessed and their geographical distribution in the locality/county.

**Gospodării**

Acasă / Gospodării

**Filtre gospodării**

911 gospodării filtrate dintr-un total de 48481 având următoarele caracteristici: Statut gospodărie (Active)

Listă gospodării cele mai noi actualizate apar primele

Data ultim chestionar	Nume gospodărie	Membri	Sat/Sector	Comună/Oraș	Județ	Creator
16 decembrie 2019 14:25		9/9	Bacău	MUNICIPIUL BACĂU	JUDETUL BACĂU	
26 ianuarie 2021 15:20		3/5	BACIOIU	CORBASCA	JUDETUL BACĂU	
23 iulie 2021 10:59		3/5	Moinești	MUNICIPIUL MOINEȘTI	JUDETUL BACĂU	
23 iulie 2021 13:20		2/3	Moinești	MUNICIPIUL MOINEȘTI	JUDETUL BACĂU	
23 iulie 2021 13:06		3/3	Moinești	MUNICIPIUL MOINEȘTI	JUDETUL BACĂU	
23 iulie 2021 13:38		2/3	Moinești	MUNICIPIUL MOINEȘTI	JUDETUL BACĂU	
23 iulie 2021 10:27		3/4	Moinești	MUNICIPIUL MOINEȘTI	JUDETUL BACĂU	
23 iulie 2021 12:41		6/7	Moinești	MUNICIPIUL MOINEȘTI	JUDETUL BACĂU	
04 august 2021 10:49		2/3	Moinești	MUNICIPIUL MOINEȘTI	JUDETUL BACĂU	
18 august 2021 13:41		4/4	DEALU MORII	DEALU MORII	JUDETUL BACĂU	

Hartă gospodării

- Profiles of the households assessed, with information disaggregated at the individual level (children and adults). The household card (the blue card) provides an overview of the household (number of household members, number of identified vulnerabilities, the number of services to be provided). It also provides information about the professionals that registered the household, the members of the team and the supervisor, and the date of the last changes executed for the household. The household profile also provides information about:

**Gospodarie**  
Acasa / Gospodarii / **GOSPODARIE IDENTIFICATA**

**Adresa:** BACAU, JUDETUL BACAU  
**Creat:** Carmen Diaconu - 26 octombrie 2017 13:08  
**Actualizat:** Angela Cruceru - 30 septembrie 2021 16:48  
**Responsabil echipa:** Angela Cruceru  
**Membrii echipei:** Popescu Simona, Ciocilă Monica Marinela

**7/9** **4** **100**

Questionare Membri Planuri servicii Activitate în gospodărie Anexă HG 691 Solicitări schimbări **Solucione**

Data	Chestionar	Actualizat de	Membri	Servicii	Vulnerabilitati	T	Compara
30 septembrie 2021 16:48	Chestionar 30 septembrie 2021 16:48		7/9	100	4	2	<input type="checkbox"/>
30 septembrie 2021 16:48	Chestionar 30 septembrie 2021 16:48		7/9	100	4	2	<input type="checkbox"/>
09 august 2018 11:48	Chestionar 09 august 2018 11:48		9/9	173	4	1	<input type="checkbox"/>
26 octombrie 2017 14:07	Chestionar 26 octombrie 2017 14:07		9/9	154	5	0	<input type="checkbox"/>

10 25 50 100

Compara

1. The number of in-depth assessment/evaluations performed in the household (the list of questionnaires completed and the raw information collected at each visit), enabling also the comparison between two different questionnaires completed in different moments, highlighting changes that occurred.

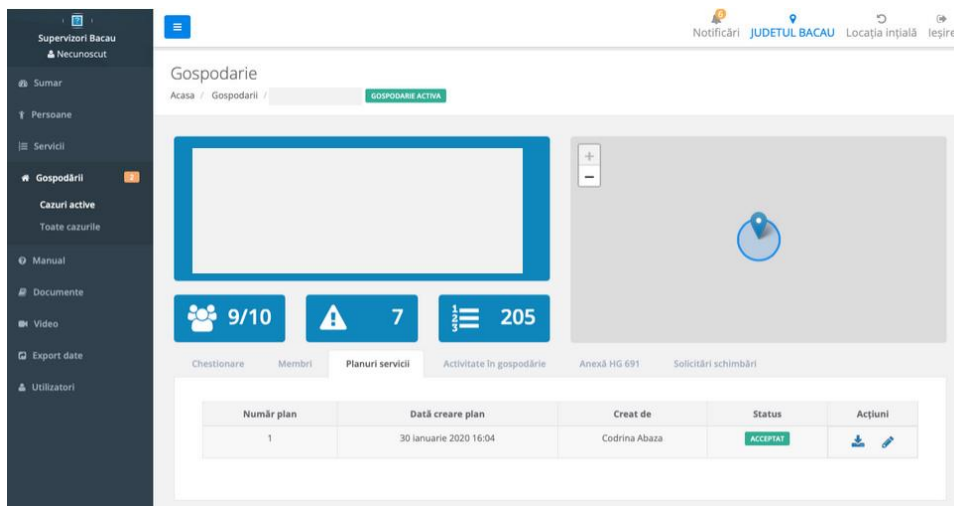
**Gospodarie**  
Acasa / Gospodarii / **GOSPODARIE ACTIVA**

**9/10** **7** **205**

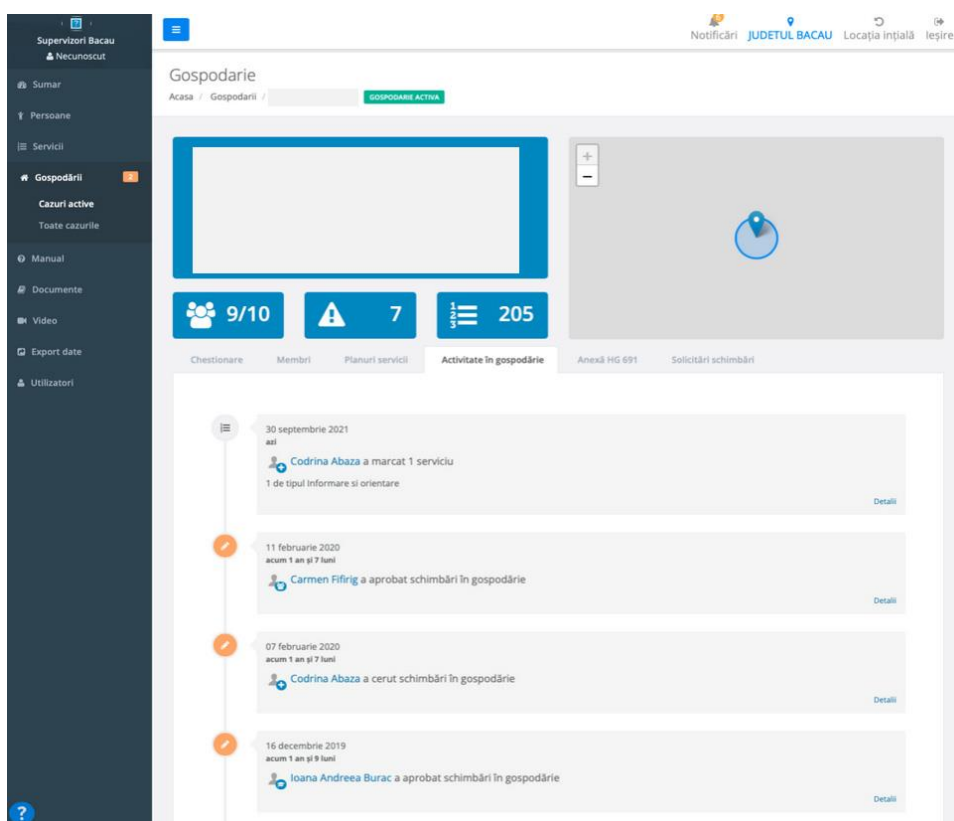
Questionare Membri Planuri servicii Activitate în gospodărie Anexă HG 691 Solicitări schimbări

ID	Nume	Data nasterii	Sex	Prezența în gospodărie
4875363		18 martie 1969 02:00	Masculin	Prezent
4875364		24 aprilie 2006 03:00	Feminin	Prezent
4875365		24 decembrie 2007 02:00	Feminin	Prezent
4875366		04 martie 2015 02:00	Masculin	Prezent
4875367		25 decembrie 2010 02:00	Feminin	Prezent
4875368		11 noiembrie 2004 02:00	Feminin	Prezent
4875369		25 iunie 2002 03:00	Masculin	Prezent
4875370		01 august 2000 03:00	Masculin	Prezent
4875371		01 februarie 1975 02:00	Feminin	Prezent
4882792		n/a	Masculin	Absent

2. The list of household members, with a summary including the date of birth, gender, and if they are present in the household. In addition, each family member's profile with additional information regarding the services they received can be accessed from this list.

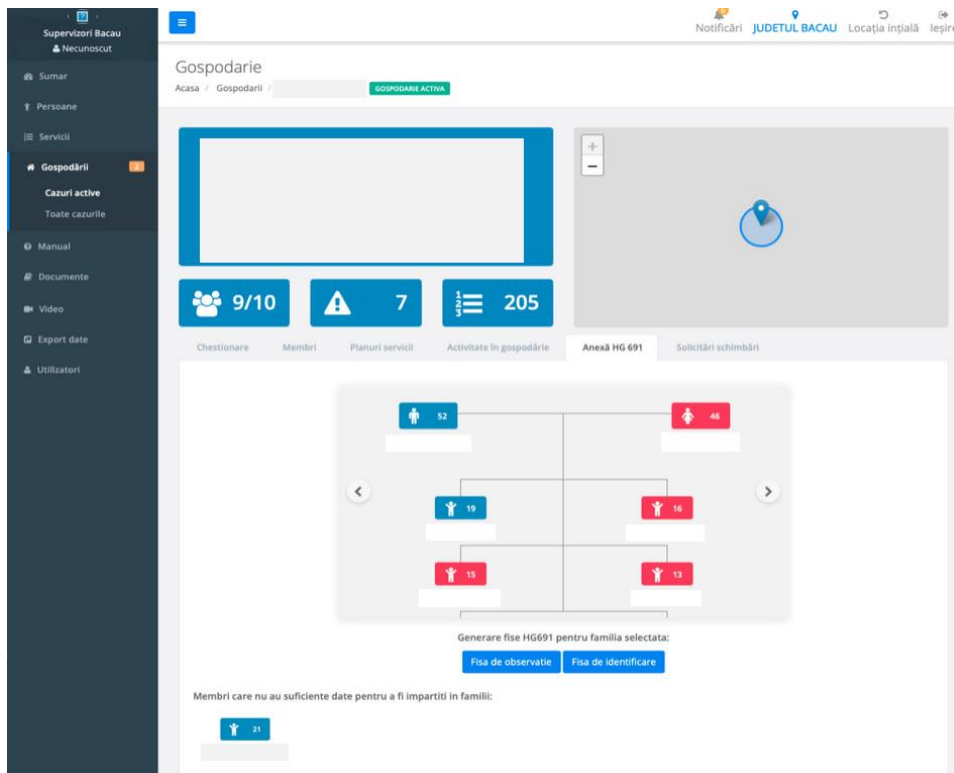


3. The plan/plans of services. The plan of services can be downloaded or revised.



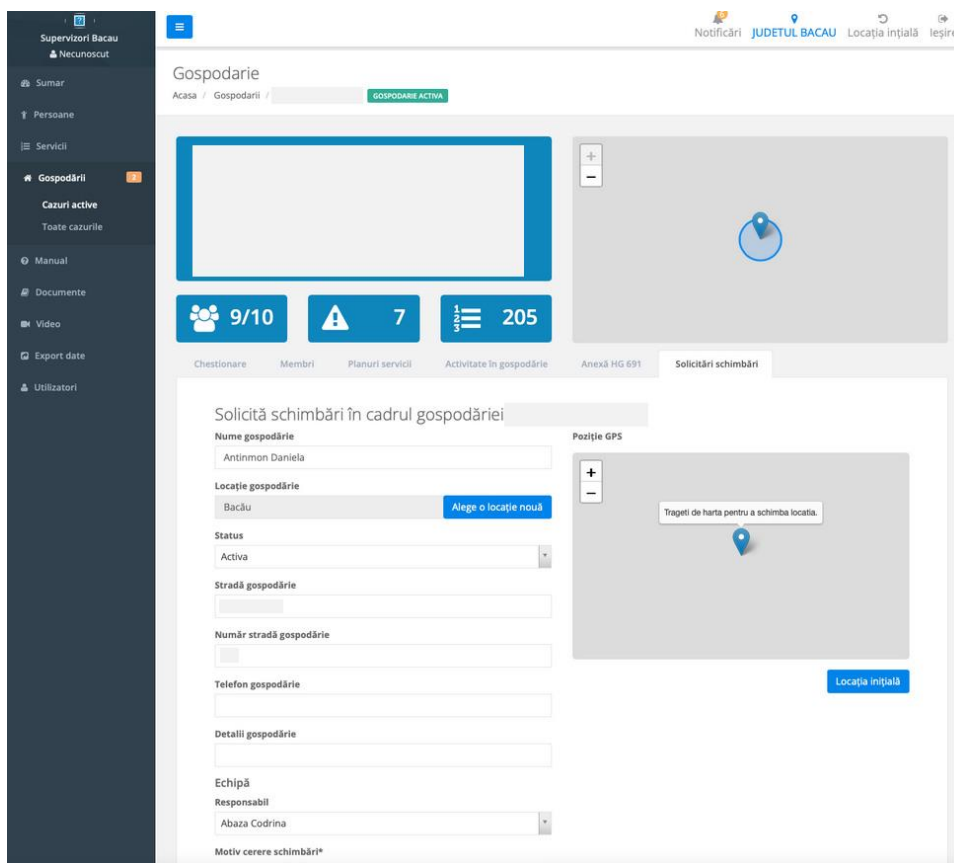
4. Activities in the household - This is a feed of information completed by the community workers regarding the changes executed over time about the household, such as changes of the household structure, delivery of services, etc.





- The mandatory annex for GD 691/2015<sup>27</sup> that must be completed by the local social assistance services. For households included in AURORA, the annex can be generated automatically and saved on personal computers. In preparing the file, Aurora provides an overview of the household on the relations between the household members.

<sup>27</sup> Government Decision 691/2015 for the approval of the Procedure for the monitoring of the upbringing and care of children with parents working abroad and the services they can benefit from, as well as for the approval of the Working Methodology for the cooperation between the general directorates for social assistance and child protection and the public social assistance services and the standard model of the documents drawn up by them.

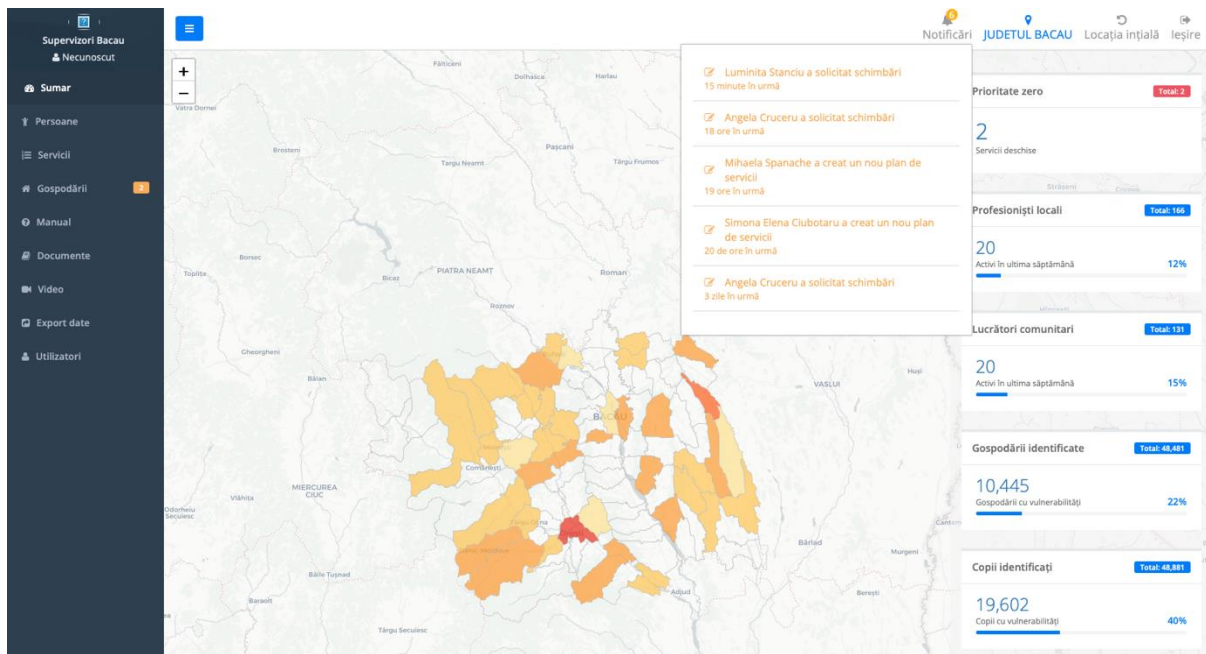


6. A button where the community workers inform about the changes in the household and ask for permission to execute them.

The individual profile, the household profile, and the services plans are inter-connected. Therefore, to have an overview of the family's situation, one can see all the information starting from the household level.

To facilitate case management and supervision of activities, information about the persons newly included in AURORA and the services that need to be provided (i.e., which are active and where action is required) can be accessed separately. The buttons on the left (**Persoane = Persons and Servicii = Services**) open the list of persons and the list of active services.

Aurora web platform facilitates coordination horizontally and vertically. For one, it allows collaboration between the local members of the team by providing everyone real-time access to the information collected. All actions performed on the platform are tracked and associated with the person completing the actions based on their user ID. Furthermore, all information is available in real-time to the county coordinator. Features related to alerts/notifications (e.g., on actions performed on households/persons/services) or a "zero-priority" button (that requires immediate intervention) are included for the county access level.

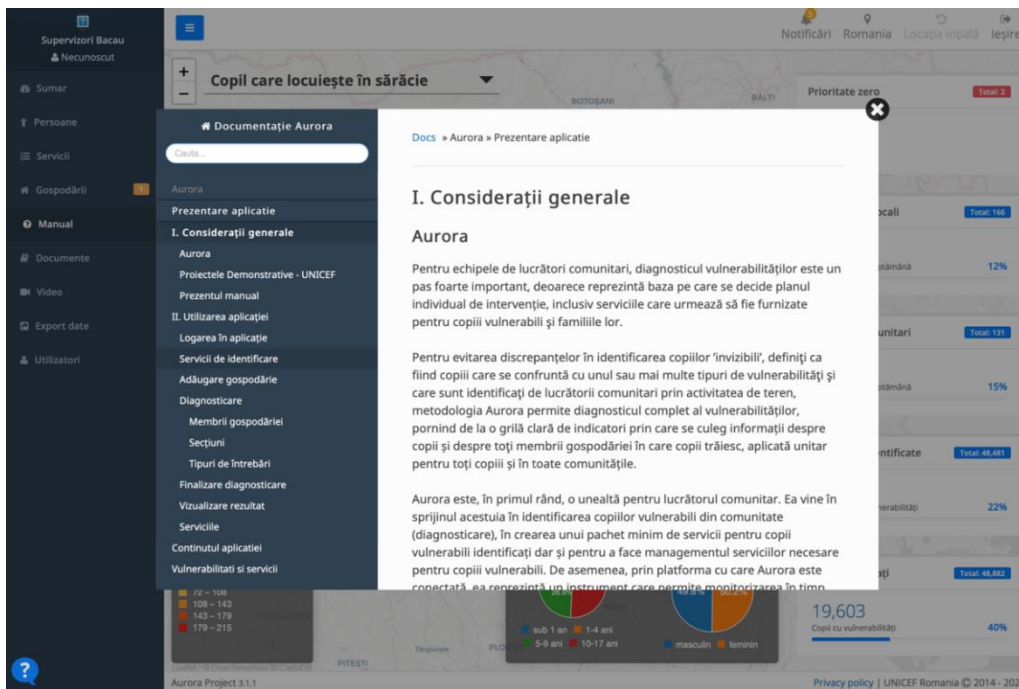


### Aurora helpdesk and tutorials

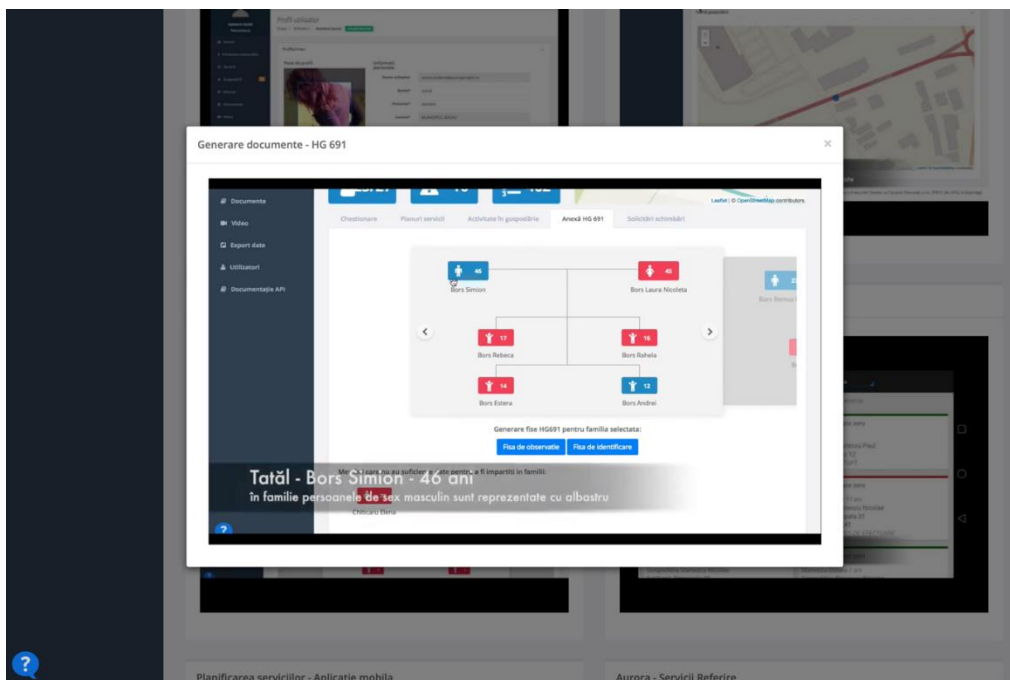
Aurora is user-friendly software with simple to use but complex features. The software can be used only with adequate training. UNICEF provided user training, covering aspects related to needs assessment, service provision, and monitoring and evaluation for all community workers where Aurora was used.

Moreover, even if they have followed a good training program, users, especially those who are learning the system, need support understanding the various technical or methodological aspects part of the system. To answer questions and requests from users, the AURORA platform integrates a system called User voice to collect feedback and respond to users. For Uservoice, UNICEF ensured the coordination and handling of requests, which can be retrieved and solved by either the IT contractor on technical issues related to application, hardware, etc., or UNICEF for methodological aspects. This system has enabled a good monitoring of the features and bugs and helped understand users' needs and prioritize further development activity. On the other hand, promoting users' engagement and increasing communication has ensured the methodology's unitary application at all levels.

Also, the AURORA web platform provides a set of supplementary resources such as:



1. The AURORA manual – a handbook that describes the concepts used and the functionalities of the mobile app AURORA



2. Other useful documents, methodologies, and short presentation movies on how to generate reports (GD 691/2015) or how to work with various features of the platform (e.g., how to complete a form that asks for permission to modify a household structure).

3. The platform also includes a repository of legislative provisions and guidelines (primary and secondary legislation - methodologies, standards, etc.), facilitating easy access for community professionals. The repository was built base on users' feedback and needs and is constantly updated. It includes documentation mainly for interventions in the area of prevention of violence against children, case management and intervention, community mobilization, communication for development, prevention and protection from COVID-19, etc.

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RAPID SOCIAL RESPONSE

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