Internal Ex-Post Evaluation for Technical Cooperation Project

conducted by Bolivia Office: July 2024

| Country Name | **Mother and Child Health Network Improvement Project in Oruro** |
|---|---|
| Plurinational State of Bolivia | |

**I. Project Outline**

<table>
<tr><td>Background</td><td colspan="3">Bolivia had the second highest maternal mortality ratio in Latin America after Haiti (200 per 100,000 live births), under-five mortality ratio (39 per 1,000 live births), and infant mortality ratio (32 per 1,000 live births)[1]. In the Department of Oruro, located in the altiplanos of western Bolivia, the health situations were worse than the above-mentioned national averages (under-five mortality ratio: 69 per 1,000 live births, the infant mortality ratio: 56 per 1,000 live births)[2].</td></tr>
<tr><td rowspan="2">Objectives of the Project</td><td colspan="3">Through the improved services provided by health facilities, changed health awareness and behavior of community residents through participatory health promotion activities, and strengthened health management (analysis of health information, planning based on analysis results, supervision of health care facilities, etc.), the project aims to improve maternal and child health (MCH) services with community participation, therefore contributing to improve health situations of pregnant women and child under 5 children in the Department of Oruro.</td></tr>
<tr><td colspan="3">1. Overall Goal: Maternal and child (under 5 years old) health situation is improved in the Department of Oruro.<br>2. Project Purpose: Maternal and child health care is improved with community participation in the project sites (3 Health Networks of Azanake, Minera and Norte).</td></tr>
<tr><td>Activities of the Project</td><td colspan="3">1. Project site: 3 Health Networks (Azanake, Minera and Norte), 16 municipalities.<br>2. Main activities: Training of the health personnel on MCH, referral/counter referral, biosafety, etc., implementation of health promotion activities in communities, activation of the Information Analysis Committee (CAI), conduct of the integral supervision, etc.<br>3. Inputs (to carry out above activities)<br>Japanese Side<br>1) Experts: 8 persons<br>2) Trainees received: 11 persons<br>3) Equipment: Vehicle, Fetal Doppler, ultrasound equipment, childbirth simulators, pediatric oxygen inhalers, incubators, etc.<br>4) Local cost for activity implementation<br>Bolivian Side<br>1) Staff allocated: 16 persons<br>2) Land and facilities: Office space, electric utility expense, etc.<br>3) Local cost: travel costs, vehicle maintenance, consumables, etc.</td></tr>
<tr><td>Project Period</td><td>(ex-ante) November 2015 to October 2019 [48 months]<br>(actual) February 2016 to February 2020 [48 months][3]</td><td>Project Cost (Japanese side only)</td><td>(ex-ante) 316 million yen, (actual) 338 million yen</td></tr>
<tr><td>Implementing Agency</td><td colspan="3">Ministry of Health (Currently Ministry of Health and Sports) (MOHS), Autonomous Departmental Government of Oruro, Departmental Health Service (SEDES) of Oruro</td></tr>
<tr><td>Cooperation Agency in Japan</td><td colspan="3">Juntendo University.</td></tr>
</table>

**II. Result of the Evaluation**

<Special Perspectives Considered in the Ex-Post Evaluation>

[Interpretation of indicators of the Project Purpose]

- The coverages of the fourth antenatal care (Indicator 1) and the institutional delivery (Indicator 2) were calculated with the expected births provided by the National Institute of Statistics. However, the number of actual births was less than the expected figures. Therefore, to verify the achievement and continuation of these indicators, the result of the ratios was mainly considered.

[Verification of the continuation of the project effects]

- Regarding Indicators 6 and 7, the impact evaluation on the competency and performance of the health and management personnel was conducted with the control group in the terminal evaluation. In the ex-post evaluation, since the same data collection and analysis were difficult due to the time and resource limitations, these were not confirmed as the continuity of the project effects, but as part of the technical aspect of sustainability.
- Regarding Indicator 8, the effects of the participatory community activities on self-efficacy, social capital, and quality of life of the community residents were statistically analyzed in the Terminal Evaluation. In the ex-post evaluation, since the same data collection and analysis were difficult due to time and resource limitations, this indicator was not used to verify the continuation of the project efforts in the ex-post evaluation.
- Indicator 9 is related to the municipal management for MCH services and is not a direct indicator of the Project Purpose. Therefore, this indicator was not used to verify the continuation of the project efforts in the ex-post evaluation.

1 Relevance/Coherence

[Relevance]

<Consistency with the Development Policy of Bolivia at the Time of Ex-Ante Evaluation >

"The Health Sector Development Plan" (2010-2020) identified the improvement of MCH as one of the priority areas, focusing on

[1] 2013 estimates of the World Health Organization.

[2] Statistics of the Departmental Health Service of Oruro.

[3] The project started on February 22, 2016, and was completed on February 21, 2020, and therefore the project period was counted as 48 months.

equitable access to health services, health promotion and community participation, and health management under the SAFCI policy[4]. The "Department Development Plan" of Oruro (2010-2015) emphasized the reduction of child malnutrition and maternal and child mortality, health promotion, and improved access to health services through the implementation of the SAFCI policy. The project was consistent with the development policy of Bolivia at the time of ex-ante evaluation.

<Consistency with the Development Needs of Bolivia at the Time of Ex-Ante Evaluation >

Health indicators were particularly poor in the Altiplano region, which was attributed to a combination of factors including a lack of health care personnel and a lack of timely access to health care services. The project was consistent with the development needs of Bolivia at the time of ex-ante evaluation.

<Appropriateness of Project Design/Approach>

No problem attributed to the project design/approach was confirmed. The project design/approach was appropriate.

<Evaluation Result>

In light of the above, the relevance of the project is ③[5].

[Coherence]

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

In the "Country Assistance Policy for Bolivia" (2012), one of the priority areas was social development with a focus on human resource development. Related to this, it was described that continuous support would be given for support for social development with a focus on improving MCH and others. The project was consistent with Japan's ODA policy to Bolivia at the time of ex-ante evaluation.

<Collaboration/Coordination with JICA's other interventions>

Although the collaboration/coordination between the project and the "Project of Strengthening the Pre-service Education System for Co-medicals" (2017-2021) of JICA was planned at the time of ex-ante evaluation, it was not implemented due to the difficult coordination of activity progress. On the other hand, the results of the "Maternal and Child Health Network Improvement Project in Potosi" (2013-2017) such as the "Local Guide of Education for Life" and CAI activation were reflected in the project through the field visits to the preceding project.

<Cooperation with other institutions/ Coordination with international framework>

The cooperation/coordination with the Inter-American Development Bank (IDB) and Korea International Cooperation Agency (KOICA) was planned at the time of ex-ante evaluation and implemented as planned, and the positive effect was confirmed at the time of ex-post evaluation, as explained later. IDB did not intervene as planned, but the reason could not be confirmed.

<Evaluation Result>

In light of the above, the coherence of the project is ③.

[Evaluation Result of Relevance/Coherence]

In the light above, the relevance/coherence of the project is ③.

## 2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the Time of Project Completion>

At the time of project completion, the Project Purpose was partially achieved. The ratio of the fourth antenatal care increased at the selected facilities of the three Networks from 2013 to 2018 (Indicator 1). The institutional deliveries decreased in all of the Networks (Indicator 2), although the ratio was still higher than the national average. The average rate of first postnatal care increased at the selected facilities from 2013 to 2018 (Indicator 3). The total number of growth and development monitoring in children under 5 at the facilities decreased (new and repeated) in all of the Networks from 2015 to 2018 (Indicator 4). Reasons may include an increase in the doctor's home visits which provided the growth and development monitoring, inaccuracy of the data, and so on. Before 2016, the monitoring was conducted when free nutritious food was provided at the facilities, but this free program ended in 2017, which may lead to a decrease in the monitoring. The total number of early child development assessments (new and repeated) in children under 2 increased in all of the three Networks from 2017 to 2018 (Indicator 5). The comparison between the baseline survey and the end-line survey revealed the improvement of the competency of the operational and management personnel and health personnel (Indicator 6), the user's assessment of health care (Indicator 7), and the residents' self-efficiency and social capital after the community health activities (Indicator 8). The number of municipal health teams that improved municipal health management increased in all of the networks (Indicator 9).

<Continuation Status of Project Effects at the Time of Ex-Post Evaluation>

By the time of the ex-post evaluation, the project effects have been partially continued. The ratio of the fourth antenatal care has decreased since the project completion, which was affected by the pandemic of COVID-19. In 2020 and 2021, many pregnant women stayed at home not to get infected. In 2021, prenatal check-ups were recommended after the 5th month of pregnancy. Another reason is the migration from the target sites to the capital of Oruro for the commercial purposes of the family. The ratio of institutional deliveries turned to increase in 2019 and has been sustained. The ratio of the first postnatal care has been sustained, too. The number of growth and development monitoring in children under 5 has kept decreasing. During the pandemic of COVID-19, health facilities exclusively treated COVID-19 cases, and also parents were hesitant to take their children to the facilities. The data of early child development assessments (new and repeated) in children under 2 were not available, because errors occurred in the data registry in 2020 and it was repaired in 2022. According to SEDES Oruro, the rate of ECD compliance in the target facilities was at least 84%, higher than that of the non-target facilities.

As the supplemental information on the continuity of the project effects, community activities were suspended during the pandemic of COVID-19 and since 2022 some activities have restarted. In 2 of the 9 visited municipalities, Education for Life Teams have been active. In all of the 16 municipalities, CAI has been regularly conducted to discuss community health issues and reflect the results in the health activity plan. In 14 municipalities, the health facilities have been monitored with the comprehensive supervision program developed by the project. AJO[6] criteria flow for the referral and counter-referral have been used in eight of the nine visited municipalities. However,

[4] The SAFCI policy emphasizes that "attitudes toward health vary from culture to culture, and that living healthy is more important than coping with diseases." It has the concept of a multicultural, integrated model of care that incorporates Andean cultures including indigenous values based on the individual, family, and community and and Western cultures.

[5] ④ : very high, ③ : high, ② : moderately low, ① : low

[6] AJO stands for Adecuado (Appropriate), Justificado (Justified), and Oportuno (Timely).

according to the interviewed municipalities, AJO feedback from the reference hospital has been limited. Regarding biosafety and solid waste management, the self-assessment has been conducted at least once a year and the information has been managed with the computer program development by the project.

SEDES Oruro has disseminated the project experiences to other health networks in the department. Efforts on early childhood development and biosafety have been implemented in other health networks (Cuenca Poopó, Oeste, and Urbana). Activities of the Competency Development Centers (CDC) have been replicated in other health networks with support from KOICA and the Pan American Health Organization (PAHO). AJO analysis has been expanded to all health networks. Since the update of the National Standard in 2022, SEDES Oruro has made efforts for the full implementation of the analysis.

<Status of Achievement of the Overall Goal at the Time of Ex-Post Evaluation>

At the time of ex-post evaluation, the Overall Goal has been partially achieved. The number of maternal deaths has increased in the Department or Oruro (Indicator 1). According to SEDES Oruro, the deaths have been mainly attributed to COVID-19 and other indirect factors that were not related to pregnancy, childbirth, or postpartum, but no detailed data were available. In the target Networks, there have been few deaths, which were caused by indirect factors and cases of pregnant women migrating from other networks. The data of both the neonatal mortality rate and the early neonatal mortality rate were not available, while those absolute numbers have increased in the Department of Oruro (Indicator 2). One cause is that the number of premature births has increased due to the limited prenatal control under the pandemic of COVID-19 in 2020 and 2021. Fewer efforts were made for neonatal emergency care during the COVID-19 pandemic, as there was only one intensive care unit in the Department of Oruro. Sepsis and asphyxiation were the main causes of death. The data of the children-under-5-mortality ratio were not available (Indicator 3), because the data of live births was not available. Although the number of deaths of children under 5 decreased or was stable from 2018 to 2022 in the target Networks, the number at the department level did not decrease due to indirect factors. On the other hand, the rates of children under 2 with acute and chronic malnutrition have drastically decreased (Indicator 4), as results of exclusive breastfeeding, complementary feeding, supervision, and comprehensive childcare. In addition, educational activities based on the Education for Life Guide have contributed to this achievement, according to SEDES Oruro.

<Other Impacts at the Time of Ex-Post Evaluation>

First, according to some interviewed municipalities, community authorities and residents have had more ownership of their health problems. By participating in community activities such as CAI and Education for Life, they have come to think of solutions for the problems. For example, child development methodologies have begun to be practiced as a routine activity at home, and mothers have become more confident in carrying their children to health centers for their growth and development checks. Second, women have got more positions in the community health authorities as they have gained knowledge and empowered from the project activities. In the municipalities of Caracollo and Poopó, 40% and 50% were women, respectively, although these positions had been occupied mainly by men.

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is ②.

Achievement of Project Purpose and Overall Goal

<table>
<tr><th>Aim</th><th>Indicators</th><th>Results</th><th>Source</th></tr>
<tr>
<td rowspan="2">(Project Purpose)<br>Maternal and child health care is improved with community participation in the project sites (3 Health Networks of Azanake, Minera and Norte).</td>
<td>Indicator 1:<br>The fourth antenatal care in selected health facilities increases since 2013:<br>1) Coverage: Number of pregnant women who completed 4 times of antenatal care / total number of expected births * 100<br>2) Ratio: Number of pregnant women who completed 4 times of antenatal care / number of women with 1st antenatal care before and after the 5th month of pregnancy * 100<br><br>Expected births: It is calculated by projection based on historical analysis. This information is provided every year by the National Institute of Statistics</td>
<td><u>Status of the Achievement (Status of the Continuation): Mostly achieved as planned (Not continued)</u><br>(Project completion)<br>・ The coverage of the fourth antenatal care decreased until 2018, but the ratio increased from 2013.<br>Table: Coverage and ratio of the fourth antenatal cares
<table>
<tr><th></th><th></th><th>2013</th><th>2015</th><th>2016</th><th>2017</th><th>2018</th></tr>
<tr><td>1) Coverage</td><td>Azanake</td><td>NA</td><td>67.3</td><td>77.5</td><td>64.5</td><td>51.4</td></tr>
<tr><td></td><td>Minera</td><td>NA</td><td>68.8</td><td>64.6</td><td>69.9</td><td>67.4</td></tr>
<tr><td></td><td>Norte</td><td>NA</td><td>90.4</td><td>86.7</td><td>89.0</td><td>85.2</td></tr>
<tr><td></td><td>Average</td><td>NA</td><td>75.5</td><td>76.3</td><td>74.5</td><td>68.0</td></tr>
<tr><td>2) Ratio</td><td>Azanake</td><td>NA</td><td>56.8</td><td>66.8</td><td>66.5</td><td>63.1</td></tr>
<tr><td></td><td>Minera</td><td>NA</td><td>56.8</td><td>63.2</td><td>68.6</td><td>76.5</td></tr>
<tr><td></td><td>Norte</td><td>NA</td><td>63.2</td><td>66.5</td><td>67.1</td><td>74.5</td></tr>
<tr><td></td><td>Average</td><td>50.7</td><td>58.9</td><td>65.5</td><td>67.4</td><td>71.4</td></tr>
</table>
<br>(Ex-post Evaluation)<br>・ Both the coverage and the ratio were decreasing.<br>Table: Coverage and ratio of the fourth antenatal cares
<table>
<tr><th></th><th></th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>1) Coverage</td><td>Azanake</td><td>68.1</td><td>62.4</td><td>75.2</td><td>52.6</td></tr>
<tr><td></td><td>Minera</td><td>72.4</td><td>75.8</td><td>78.6</td><td>49.4</td></tr>
<tr><td></td><td>Norte</td><td>83.6</td><td>86.4</td><td>91.2</td><td>67.1</td></tr>
<tr><td></td><td>Average</td><td>73.1</td><td>71.6</td><td>80.1</td><td>55.7</td></tr>
<tr><td>2) Ratio</td><td>Azanake</td><td>76.7</td><td>70.7</td><td>71.4</td><td>65.2</td></tr>
<tr><td></td><td>Minera</td><td>71.3</td><td>70.5</td><td>69.6</td><td>68.0</td></tr>
<tr><td></td><td>Norte</td><td>72.3</td><td>67.7</td><td>71.8</td><td>65.7</td></tr>
<tr><td></td><td>Average</td><td>74.1</td><td>69.7</td><td>71.1</td><td>66.0</td></tr>
</table>
</td>
<td>PCR, Health Networks, municipalities.</td>
</tr>
<tr>
<td>Indicator 2:<br>Institutional delivery in selected health</td>
<td><u>Status of the achievement (Status of the Continuation): Not achieved (Partially achieved and continued)</u></td>
<td>PCR, municipalities.</td>
</tr>
</table>

facilities increases since 2013:
1) Coverage: (Number of birth attended in health facilities + number of attended at home by health personnel and skilled birth attendant) / total number of expected births * 100
2) Ratio: (Number of births attended in health facilities + number of births attended at home by health personnel and skilled birth attendant) / total number of actually registered births * 100

(Project completion)

- Both the coverage and the ratio were decreasing.

Table: Coverage and raio of institutional deliveries

| | | 2013 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|
| 1) Coverage | Azanake | NA | 80.0 | 73.2 | 77.7 | 71.4 |
| | Minera | NA | 47.0 | 45.1 | 54.5 | 47.1 |
| | Norte | NA | 77.1 | 74.0 | 74.7 | 64.3 |
| | Average | NA | 68.0 | 64.1 | 69.0 | 60.9 |
| 2) Ratio | Azanake | NA | 95.8 | 94.9 | 94.0 | 92.9 |
| | Minera | NA | 96.1 | 96.3 | 98.5 | 96.2 |
| | Norte | NA | 89.9 | 85.0 | 85.2 | 82.3 |
| | Average | 96.2 | 93.9 | 92.1 | 92.6 | 90.5 |

(Ex-post Evaluation)

- The coverage kept decreasing during and after the project. The ratio exceeded that of 2013 in 2019 and then slightly increased.

Table: Coverage and ratio of the fourth antenatal cares

| | | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| 1) Coverage | Azanake | 72.2 | 74.0 | 86.1 | 66.7 |
| | Minera | 62.5 | 70.3 | 73.1 | 44.4 |
| | Norte | 62.9 | 76.2 | 80.0 | 55.2 |
| | Average | 67.4 | 73.7 | 81.5 | 57.5 |
| 2) Ratio | Azanake | 95.5 | 97.2 | 97.1 | 96.9 |
| | Minera | 97.6 | 98.4 | 96.8 | 98.4 |
| | Norte | 95.5 | 93.9 | 94.7 | 95.0 |
| | Average | 95.9 | 96.5 | 96.4 | 96.7 |

Indicator 3:
The rate of first postnatal care increases at selected health facilities since 2013: Number of women with first postnatal care / (total number of live births in health in health facilities + live births attended at home by midwives and others) * 100

Status of the achievement (Status of the Continuation): Achieved as planned (Continued)

(Project completion)

- The rate of first postnatal care increased from 2013.

Table: rate of first postnatal care

| | 2013 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Azanake | NA | 97.9 | 98.7 | 99.6 | 100.0 |
| Minera | NA | 96.8 | 100.0 | 100.0 | 100.0 |
| Norte | NA | 100.0 | 99.6 | 99.6 | 98.8 |
| Average | 99.4 | 98.2 | 99.4 | 99.7 | 99.6 |

(Project completion)

- The rate of first postnatal care almost continued.

Table: rate of first postnatal care

| | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|
| Azanake | 99.9 | 99.2 | 96.7 | 99.2 |
| Minera | 99.4 | 98.9 | 98.2 | 98.7 |
| Norte | 99.5 | 98.8 | 95.6 | 99.8 |
| Average | 99.7 | 99.0 | 96.7 | 99.3 |

PCR, municipalities.

Indicator 4:
The total number of growth and development monitoring increases (new and repeated) in children under 5 from 52,648 in Azanake Network, 16,299 in Minera Network and 29,189 in Norte Network of 2015.

Status of the achievement: Not achieved (Not achieved).

(Project completion)

- The number of growth and development monitoring decreased in the three Networks.

Table: Number of growth and development monitoring

| | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| Azanake | 52,648 | 48,550 | 42,362 | 36,771 |
| Minera | 16,299 | 16,349 | 14,462 | 13,921 |
| Norte | 29,189 | 30,093 | 26,955 | 24,179 |

(Ex-post Evaluation)

- The number of growth and development monitoring decreased in three Networks.

Table: Number of growth and development monitoring

| | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|
| Azanake | 37,804 | 23,536 | 23,323 | 22,591 |
| Minera | 13,149 | 9,602 | 9,112 | 8,888 |
| Norte | 19,819 | 15,703 | 16,466 | 16,744 |

PCR, municipalities.

Indicator 5:
The total number of early child development assessments (new and

Status of the achievement: Achieved as planned (Not verifiable).

(Project completion)

- The total number of early child development assessments

PCR, SEDES Oruro.

<table>
<tr><td></td><td>repeated) increases in children under 2 based on official protocols.</td><td>increased in the three Networks.<br>Table: Number of early child development assessments
<table>
<tr><th></th><th>2018</th><th>2019</th></tr>
<tr><td>Azanake</td><td>1,917</td><td>2,663</td></tr>
<tr><td>Minera</td><td>2,715</td><td>3,039</td></tr>
<tr><td>Norte</td><td>3,697</td><td>4,195</td></tr>
</table>
(Ex-post Evaluation)<br>・ The data of early child development assessments were not available.<br>Table: Number of growth and development monitoring
<table>
<tr><th></th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>Azanake</td><td>N.A.</td><td>N.A.</td><td>N.A.</td></tr>
<tr><td>Minera</td><td>N.A.</td><td>N.A.</td><td>N.A.</td></tr>
<tr><td>Norte</td><td>N.A.</td><td>N.A.</td><td>N.A.</td></tr>
</table></td><td></td></tr>
<tr><td></td><td>Indicator 6:<br>The competency study outcome of the operational and management, health personnel improve over the assessed result of the project baseline study.</td><td><u>Status of the achievement: Achieved as planned.</u><br>(Project Completion)<br>・ Based on the comparison of the baseline survey and end-line survey, the competency of the doctors, nurses, and assistant nurses in the target networks was improved compared to those in the control networks. The competency of the management personnel was improved compared to those in the control networks.</td><td>PCR.</td></tr>
<tr><td></td><td>Indicator 7:<br>The user's assessment about health care and others improves in comparison with the baseline study.</td><td><u>Status of the achievement: Achieved as planned.</u><br>(Project Completion)<br>・ Based on the comparison of the baseline survey and end-line survey, the user's assessment of doctors and nurses was improved.</td><td>PCR.</td></tr>
<tr><td></td><td>Indicator 8:<br>Indicators of self-efficiency, social capital and quality of life related to health improve in communities where activities with community participation were implemented.</td><td><u>Status of the achievement: Partially achieved.</u><br>(Project Completion)<br>・ Based on the comparison of the baseline survey and end-line survey, the self-efficiency and social capital related to health improved. The QOL was not changed, probably due to the iterative effects and Pygmalion effects.</td><td>PCR.</td></tr>
<tr><td></td><td>Indicator 9:<br>The number of municipal health teams increases that improve municipal health management according to selected criteria.</td><td><u>Status of the achievement: Achieved as planned.</u><br>(Project Completion)<br>・ The number of municipal health teams that improved municipal health management increased in all three networks.</td><td>PCR, Health Networks, municipalities.</td></tr>
<tr><td>(Overall Goal)<br>Maternal and child (under 5 years old) health situation is improved in the Department of Oruro.</td><td>Indicator 1:<br>The number of maternal deaths decreases from 1):8, 2):8 in 2015.<br><br>Data source: 1): MOHS SNIS (National System of Health Information), 2): CMUD (Medical Certification of Death)</td><td><u>Status of the Achievement: Not achieved.</u><br>(Ex-Post Evaluation)<br>・ The number of maternal deaths in Oruro has increased to 13 (data from MOHS SNIS). The data from CMUE was not available.<br>Table: Number of maternal deaths
<table>
<tr><th></th><th>2018</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>Oruro Department</td><td>6</td><td>12</td><td>3</td><td>10</td><td>13</td></tr>
<tr><td>Azanake</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr>
<tr><td>Minera</td><td>0</td><td>0</td><td>0</td><td>0</td><td>2</td></tr>
<tr><td>Norte</td><td>0</td><td>2</td><td>2</td><td>0</td><td>0</td></tr>
</table></td><td>MOHS SNIS.</td></tr>
<tr><td></td><td>Indicator: 2<br>The neonatal mortality rate (early and late) decreases (Number of neonatal deaths/total live births*1,000) from 1): 7.6, 2): 30.0, and the early neonatal mortality rate (Number of early neonatal deaths/total live births*1,000) decreases from 1): 6.7, 2): 27.0 in 2015.<br><br>Note: The target figure of 2) is divided by the number of live births of SEDES SNIS.<br><br>Data source: 1): MOHS SNIS, 2): CMUD, SEDES SNIS</td><td><u>Status of the Achievement: Not verifiable.</u><br>(Ex-Post Evaluation)<br>・ The data of neonatal mortality rate and early neonatal mortality rate was not available.<br>・ <supplemental information> The numbers of neonatal deaths and early neonatal deaths have increased to 102 and 77, respectively (data from MOHS SNIS).<br>Table: Neonatal mortality ratio (early and late)
<table>
<tr><th></th><th>2018</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>Oruro Department</td><td>74</td><td>79</td><td>79</td><td>73</td><td>102</td></tr>
<tr><td>Azanake</td><td>3</td><td>2</td><td>5</td><td>4</td><td>3</td></tr>
<tr><td>Minera</td><td>0</td><td>1</td><td>1</td><td>2</td><td>3</td></tr>
<tr><td>Norte</td><td>2</td><td>1</td><td>0</td><td>5</td><td>1</td></tr>
</table>
Table: Early neonatal mortality ratio
<table>
<tr><th></th><th>2018</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>Oruro Department</td><td>65</td><td>53</td><td>61</td><td>52</td><td>77</td></tr>
<tr><td>Azanake</td><td>2</td><td>1</td><td>1</td><td>3</td><td>1</td></tr>
<tr><td>Minera</td><td>0</td><td>1</td><td>0</td><td>1</td><td>3</td></tr>
<tr><td>Norte</td><td>2</td><td>0</td><td>0</td><td>3</td><td>0</td></tr>
</table></td><td>MOHS SNIS.</td></tr>
<tr><td></td><td>Indicator: 3</td><td><u>Status of the Achievement: Not verifiable.</u></td><td>MOHS SNIS</td></tr>
</table>

<table>
<tr>
<td></td>
<td>The children-under-5-mortality rate (Number of deaths of children under 5 years old/total live births*1,000) decreases from 1): 12.6, 2): 41.0 in 2015.<br><br>Note: The target figure of 2) is divided by the number of live births of SEDES SNIS.<br><br>Data source: 1): MOHS SNIS, 2): CMUD, SEDES SNIS</td>
<td>(Ex-Post Evaluation)<br>・ The data on the children under-5 mortality rate was not available.<br>・ <supplemental information> The number of deaths of children under five years of age has increased since 2018, although in 2020 and 2021 there was a slight decrease.<br>Table: Number of deaths of children under 5
<table>
<tr><th></th><th>2018</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>Oruro Department</td><td>139</td><td>141</td><td>124</td><td>112</td><td>189</td></tr>
<tr><td>Azanake</td><td>19</td><td>3</td><td>12</td><td>11</td><td>12</td></tr>
<tr><td>Minera</td><td>3</td><td>7</td><td>7</td><td>3</td><td>8</td></tr>
<tr><td>Norte</td><td>10</td><td>13</td><td>9</td><td>12</td><td>12</td></tr>
</table>
</td>
<td></td>
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<tr>
<td></td>
<td>Indicator: 4<br>Malnutrition prevalence rate (acute and chromonic) decreases in children under 2:<br>(Number of children under 2 with acute malnutrition/total number of children under 2) from 3.2% in 2016.<br>(Number of children under 2 with chronic malnutrition/total number of children under 2) from 14.8% in 2016.<br>(Number of children under 2 with acute malnutrition/total number of children under 2 assessed) from 4.1% in 2016.<br>(Number of children under 2 with chronic malnutrition/total number of children under 2 assessed) from 18.3% in 2016.</td>
<td><u>Status of the Achievement: Achieved as planned.</u><br>(Ex-Post Evaluation)<br>・ Both the numbers of children under 2 with acute and chronic malnutrition against the total number of assessed children under 2 have decreased.<br>・ The data of children under 2 with acute and chronic malnutrition divided by the total number of children under 2 were not available.<br>Table: Number of children under 2 with acute malnutrition/total number of children under 2 assessed
<table>
<tr><th></th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>Oruro Department</td><td>-</td><td>0.7</td><td>0.5</td><td>0.5</td></tr>
<tr><td>Azanake</td><td>-</td><td>0.6</td><td>0.2</td><td>0.4</td></tr>
<tr><td>Minera</td><td>-</td><td>0.7</td><td>1.0</td><td>0.4</td></tr>
<tr><td>Norte</td><td>-</td><td>0.8</td><td>0.5</td><td>0.7</td></tr>
</table>
Note: The data of 2019 were not recorded from technical problems of SNIS.<br>Table: Number of children under 2 with chronic malnutrition/total number of children under 2 assessed
<table>
<tr><th></th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr>
<tr><td>Oruro Department</td><td>-</td><td>7.6</td><td>7.1</td><td>7.1</td></tr>
<tr><td>Azanake</td><td>-</td><td>8.5</td><td>7.4</td><td>7.5</td></tr>
<tr><td>Minera</td><td>-</td><td>9.3</td><td>10.6</td><td>9.3</td></tr>
<tr><td>Norte</td><td>-</td><td>3.9</td><td>3.8</td><td>4.7</td></tr>
</table>
Note: The data of 2019 were not recorded from technical problems of SNIS.</td>
<td>MOHS SNIS</td>
</tr>
</table>

## 3 Efficiency

Although the project cost slightly exceeded the plan (the ratio against the plan: 105%) due to the combined factors, the project period was as planned (the ratio against the plan: 100%). Outputs were produced as planned.

| | Project Cost (Japanese side only, yen) | Project Period (months) |
|---|---|---|
| Plan (ex-ante) | 316 million yen | 48 months |
| Actual | 338 million yen | 48 months |
| Ratio (%) | 105% | 100% |

In the light above, the efficiency of the project is ③.

## 4 Sustainability

<Policy Aspect>

Promotion of MCH services and nutrition has been prioritized in the “Sectoral Comprehensive Development Plan “2021-2025.”

<Institutional/Organizational Aspect>

The organizational structure of SEDES Oruro has been mostly sustained, including sections for MCH, biosafety, and planning (health management information systems (HMIS)). Relevant sections of SEDES Oruro have maintained the number of staff, and they have worked efficiently with the methodologies and tools developed by the project. The numbers of staff of the three target Health Networks in 2022 were 426, 229, and 291, respectively, which were more than those during the project period. Communication between the reference hospital and the first-level health facilities has been improved and sustained through the operation of CDC, according to SEDES Oruro.

<Technical Aspect>

It is judged that the target Health Networks have sustained the knowledge and skills to promote MCH because they have conducted and managed documents of CAI, integral supervision, biosafety, and others, as observed in the ex-post evaluation. Also, it was confirmed that visited health facilities have continued MCH efforts strengthened by the project, such as biosafety and waste management, CAI, and reference/counter-reference. Necessary documents have been filed in an organized way. Each Health Network has sustained its CDC. CDC has annually developed the training plan for the health and management personnel based on the identified needs and submitted it to SEDES Oruro for implementation. Most of the manuals developed by the project have been utilized, except the “Local Guide of Education for Life” due to the limited community activities since the pandemic of COVID-19.

<Financial Aspect>

Since the national emergency response to COVID-19 in March 2020 and the administrative change in May 2021, SEDES Oruro and the Health Networks have secured less budgets than before. However, it has conducted necessary MCH activities such as monitoring. Interviewed municipalities answered that they have allocated sufficient budgets for maintaining health activities and operating first and

second-level health facilities.
<Environmental and Social Aspect>

No issue on environmental and social aspects has been observed so far. Waste management has been conducted without problems at health facilities. However, all municipalities have difficulty in transferring and depositing waste from the facilities to the municipal dumps or landfills, which have remained a risk to the environment. The only sanitary landfill is located in the capital city.

<Evaluation Result>

In light of the above, slight problems have been observed in terms of the financial aspect of the implementing agency. Therefore, the sustainability of the project effects is ③.

5 Summary of the Evaluation

The project partially achieved the Project Purpose of improving MCH care with community participation in the Department of Oruro, which has led to the partial achievement of the Overall Goal of improving MCH situation. Regarding sustainability, although the budget of SEDES Oruro and the Health Networks has decreased, there have been no issues in the institutional and technical aspects of sustaining MCH care.

Considering all of the above points, this project is evaluated to be satisfactory.

**III. Recommendations & Lessons Learned**

Recommendations for Implementing Agency:

- The integral supervision has been conducted in most municipalities, and the supervision guide developed by the project has been utilized. It is recommended to SEDES Oruro that review the guide and incorporate new issues such as the sexual and reproductive health and children and adolescents in the guide to make the supervision further comprehensive.
- Regarding the medical waste transfer and deposit from the health facilities, SEDES Oruro should monitor the impact on the people and the environment and discuss with the Department Government and municipalities for developing the waste treatment system.

Lessons Learned for JICA:

- In this ex-post evaluation, the absolute numbers of maternal, neonatal, and under-five mortality were available from HMIS. However, the accurate mortality ratios could not be confirmed because the numbers of live births (denominator of the ratio) were not appropriately managed. Usually, the number of death cases is reported by each health facility or hospital, but the data are not necessarily complete. Therefore, it was difficult to calculate the ratio in the ex-post evaluation. In MCH projects which aim to improve their health conditions, it is necessary to carefully examine HMIS of the country at the project formulation stage. If there is any concern about HMIS, it is better to avoid the indicators of mortality ratios for verification of the Overall Goal. It is better to confirm the absolute number of deaths among the absolute number of reported live births because some births or deaths are possibly not reported.
- Through the project activities, women were empowered and got positions in the community health authorities. Specifically, as per the Local Guide to Education for Life, community activities were implemented by promoting women's participation, including the identification and analysis of health and education needs of individuals, families, and communities. Also, the role of women in the family became visible in the analysis. Experiencing these activities, women came to understand the issues and solutions. Thus, in projects which aim to empower women, it is important to actively involve women in activities for situational analysis so that they can understand issues and their roles and think of solutions. Understanding how they are related to the issues and what they can do to solve the issues is one of the keys to their empowerment.

Early childhood development evaluation at the Huari Health Center
(Santiago de Huari Municipality, August 2023)

Internship at the CDC in the San Andres Hospital
(Caracollo Municipality, August 2023)