Introduction

Chengdu City, one of the most populated cities in China, comprises both urban communities and rural counties and is moving towards becoming a Child-Friendly City with the core objectives of protecting children’s rights and improving their well-being. To help tackle the increase in childhood overweight and obesity, the National Health Commission, and UNICEF selected Chengdu as a pilot city to carry out an Urban-based Nutrition Programme (UNP) to demonstrate city-level actions that could reduce the rapid acceleration of child overweight and obesity in China. This city-based model is part of China’s commitment to meeting the targets set under the National Nutrition Plan.

A landscape analysis was undertaken in early 2021 as the first step of establishing this UNP model with the objective of identifying a set of priority actions to address the existing gaps in policies and programs. It involved two surveys,1 a literature review, interviews with key informants and a validation workshop. The work was a joint effort by the Chengdu Health Commission, Chengdu Centre of Disease Prevention and Control and Chengdu Women’s Federation - the lead agency of Chengdu’s Child Friendly City Taskforce.

Key findings

01 Overweight and obesity is increasing rapidly among children in Chengdu.

- As age increases, the overweight and obesity rate among children also increases.
- The percentage of children with overweight is slightly higher in urban compared to rural areas though the gap is gradually decreasing.
- Overweight is more common in boys than girls.

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1 One is the Chengdu Landscape Analysis Survey, a stratified randomized survey of 2,725 students, 2,782 caregivers, and teachers and administrators from 65 primary, junior secondary, and senior secondary schools, which collected dietary intake and physical exercise activity data on school-age children. The other one is a small sample survey of 125 new mothers in the Chengdu district of Pengzhou on exclusive breastfeeding using the standard questionnaires and methodology recommended by WHO and UNICEF.

2 Obesity rate in 2019. The overweight rate is not monitored and reported through the Maternal and Child Health Monitoring Data, by the Chengdu Health Commission.


4 Overweight and obesity rate in 2020, reported through the student physical fitness monitoring data by Chengdu Centre for Disease Prevention and Control (CDC).
The increasing prevalence of obesity in women of reproductive age and the high incidence of diabetes during pregnancy need attention as they are associated with childhood overweight at early ages.

Despite 90% of children being born with normal weight, the low prevalence of exclusive breastfeeding and the use of infant formula increases the risks that babies face of becoming overweight.

Poor maternal nutrition and infant feeding practices contribute to the risk of becoming overweight among younger children.

<table>
<thead>
<tr>
<th>Women of reproductive age</th>
<th>Infants and children</th>
<th>Breastfeeding</th>
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</thead>
<tbody>
<tr>
<td>Obese³</td>
<td>19%</td>
<td>4%</td>
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<tr>
<td>Gestational diabetes³</td>
<td>15%</td>
<td>4%</td>
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<tr>
<td>Babies born with low birthweight &lt; 2.5kgs³</td>
<td>4%</td>
<td>75%</td>
</tr>
<tr>
<td>Babies born with high birthweight &gt; 4kgs³</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

Unhealthy diets, lack of physical exercise and sleep contribute to the increase in overweight among older children in Chengdu.

- More than half of children and adolescents eat snacks and unhealthy foods every day.
- Children and adolescents do not get enough physical exercise, especially on school days.
- Screen time for leisure among children and adolescents increases with age.
- Children and adolescents fail to get enough sleep.

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1 The small sample survey in the Chengdu district of Pengzhou revealed only a 25% exclusive breastfeeding rate for babies at 6 months.
2 According to the Chengdu Landscape Analysis Survey on Jan 2021, 50.48% children and adolescents claimed they had eaten 1 or more of the 5 common snacks and unhealthy foods asked about in the past 24 hours.
3 Chengdu Landscape Analysis Survey, Jan 2021, Chengdu CDC.
An obesogenic environment is one that promotes the consumption of energy-dense, nutrient-poor foods and beverages, or encourages reduced physical activity or increased sedentary behaviour (sitting down or lying down).

The school environment still allows students to consume snacks and unhealthy foods.
- 74% schools have retail outlets within 200 metres selling unhealthy foods.\(^5\)
- 25% schools do not offer safe drinking water.\(^5\)
- 17% schools have retail shops selling sugar-sweetened beverages (SSBs) on campus.\(^5\)

The home environment and parents have a major influence on dietary habits.
- 43% increase in desserts consumed by households between 2017-2019.\(^8\)
- 37% caregivers provided unhealthy food (e.g. desserts, SSBs and puffed foods) to their children in the past 24 hours.\(^5\)
- 40% children think that parental advice most influences their food choices.\(^5\)

The social environment especially social media and peer pressure encourages unhealthy food consumption in children as they get older.
- 37% adolescents (15-19 years) thought that peer opinion most influences their food choices.\(^5\)
- 26% adolescents (15-19 years) thought that advertisements, social media posts and ‘eating broadcasts’\(^9\) were the biggest influence on their food choices.\(^5\)

The food and lifestyle environment in Chengdu contribute to overweight and obesity.
- 18% total retail sales was in the catering industry in Chengdu which is higher than the national average of 11%.\(^8\)
  - Hot pot – with high levels of sodium and fat – is a common favourite for people of all ages in Chengdu and dining out is a popular activity.
  - Heavier babies are commonly perceived to be healthy, making it a challenge to change social norms around feeding and care of babies to be healthier.

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\(^4\) Chengdu Statistical Yearbook 2020.
\(^5\) Eating broadcasts (吃播) are a popular social media phenomenon in which influencers broadcast themselves eating, sometimes huge quantities of foods.
Key gaps remain in the areas of governance, policies and interventions, regulations and enforcement, and monitoring and evaluation to address the increase in childhood overweight and obesity.

<table>
<thead>
<tr>
<th>POLICY AND PROGRAMME</th>
<th>GAPS</th>
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<tbody>
<tr>
<td><strong>Governance</strong></td>
<td>While there are many ambitious plans and strategies at the national level, regulations and enforcement guidelines are weak, and making it hard for local authorities to translate policy into realistic and actionable plans with sustainable results. At the city level, no single office or entity or member of the city council is responsible for coordinating actions related to the reduction of childhood overweight and obesity, and no multi-sectoral stakeholder cooperation mechanism has been set up.</td>
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<tr>
<td><strong>Policies and interventions</strong></td>
<td>There are limited policies and programmes to promote healthy lifestyles or discourage producers of unhealthy food to market them to children, and a lack of concrete policies and programmes to promote and support active lifestyles and physical activity. Currently, there is no menu labelling system to inform customers with clear nutrition information in restaurants, and limited interventions to improve the nutrition literacy such as front of package labels to help families and drive changes to social norms and behaviours.</td>
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<tr>
<td><strong>Regulations and enforcement</strong></td>
<td>There are no concrete government restrictions on the fast-food stores near schools, or on unhealthy food advertisements on billboards, TV, social media, or public transportation. Regulations on the improvement of the food retail environment only focus on food retail sales in schools, but this is neither monitored nor reported. Currently, there is no implementation plan for the existing regulations on the school retail food environment.</td>
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<tr>
<td><strong>Monitoring, evaluation, and surveillance</strong></td>
<td>There is currently no regular monitoring of the risk factors for childhood obesity, including promotion of highly processed foods and advertising that targets children and their caregivers, nor are there publicly accessible monitoring reports or data on the enforcement of related regulations.</td>
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**Priority actions**

Chengdu can act to prevent overweight and obesity in children through adopting a multi-sectoral approach and with the leadership of the National Health Commission and UNICEF support.

<table>
<thead>
<tr>
<th>SYSTEMS</th>
<th>PROPOSED RECOMMENDATIONS</th>
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<tbody>
<tr>
<td><strong>Overarching actions</strong></td>
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<tr>
<td>1</td>
<td>Establish a multi-sectoral taskforce on childhood obesity under the Child-Friendly City leadership framework.</td>
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<td>2</td>
<td>Establish standard indicators and a system for monitoring and reporting on policies and regulations to address childhood overweight and obesity.</td>
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<td>3</td>
<td>Disseminate monitoring and reporting data regularly with all relevant sectors and departments.</td>
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<td>4</td>
<td>Improve public health communication about healthy food behaviours including through social media campaigns and media personalities where appropriate.</td>
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<tr>
<th>Supportive policies and actions at national level</th>
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<tbody>
<tr>
<td>1</td>
<td>Develop standard definitions for unhealthy foods.</td>
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<tr>
<td>2</td>
<td>Introduce front-of-pack nutrition labelling on pre-packaged food and drink.</td>
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<tr>
<td>3</td>
<td>Restrict the marketing of highly processed foods to children through media platforms.</td>
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- Pilot healthy food retail environment interventions in selected supermarkets.
- Restrict the open-air advertising of highly processed foods in settings where children gather.
- Introduce labelling with nutrition information on menus of restaurants.
- Develop incentives and fiscal structures to favour the sale of healthy foods.
- Implement the infant and young child feeding counselling training package developed by the National Health Commission and UNICEF.
- Introduce screening of preschool children for overweight and obesity.
- Restrict and monitor the sale of high fat, sugar and salt, energy-dense, low-nutrient foods in and around school campuses.
- Improve, standardise, monitor and report on school meal standards, physical activity requirements, and the student nutrition curriculum.
- Equip social workers with nutrition knowledge and fully utilize the Child-Friendly Space framework as a platform to educate and inform caregivers and increase their nutrition literacy.
- Develop standard definitions for unhealthy foods.
- Introduce front-of-pack nutrition labelling on pre-packaged food and drink.
- Restrict the marketing of highly processed foods to children through media platforms.