




# Enhancing the Healing Impact of Hospital Food



**CGI AROMI**

**Improving food quality and  
safety with an intelligent food  
service solution**

A photograph of a healthy meal. In the foreground, a white bowl is filled with a vibrant orange pumpkin soup, garnished with fresh green herbs, sliced almonds, and a dusting of brown powder. Behind the bowl, a small white dish contains a bright orange powder, likely turmeric. To the left, a whole roasted pumpkin sits on a white surface. In the background, a glass jar is filled with a thick, reddish-orange dressing. The entire scene is set against a clean, white background.

Scientific studies reveal the importance of food quality to the healing process of patients in addition to maintaining general wellness. However, hospitals and other healthcare facilities face obstacles in preparing nutritious and appetizing food for their patients efficiently and cost-effectively.

# Introduction

The primary obstacles to providing efficient, high-quality food services are cost pressures and limited budgets. Other common challenges include a lack of transparency related to meal nutrition and food safety risks, as well as excessive food waste. All of these obstacles require a more systematic, digital approach to enhance food service delivery and improve patient outcomes.

Since 1986, CGI has helped healthcare organizations deliver nutritious meals to patients. CGI Aromi, an innovative food service enterprise resource planning system, leads the market in Finland, providing more than 150 million meals annually through 100 healthcare organizations. Now CGI Aromi is available to healthcare organizations across the globe.

As the hospital food service industry becomes increasingly complex, experience-based management is no longer sufficient. Applying a data-driven approach to food services, CGI Aromi offers relevant data to healthcare professionals in real time, enabling them to make more logical and efficient decisions in food planning, preparation and delivery.

Healthcare organizations can integrate CGI Aromi with their digital records and follow patients from emergency medical care to home care and service communities. Further, they are able to deliver appropriate nutrition, along with autonomy and choice to patients and their caregivers with respect to meal programs.

With CGI Aromi, patients also are freed from worrying about receiving meals that do not take their dietary needs into consideration. Moreover, clinical staff can steer their focus more toward providing the care patients need.

# Food-related challenges for healthcare providers

Hospital food service providers must deal with a multitude of details—and oftentimes with a restricted budget. Further, they need to minimize food preparation time and production costs, as well as avoid unnecessary food waste.

Studies reveal the most important factors in enhancing patient satisfaction with hospital food services include improving the quality of food served, food menus and the overall meal-ordering process. Studies also reveal that

hospital food service providers are challenged in consistently ensuring nutritional adequacy and patient satisfaction. Even though a majority of providers solicit patient satisfaction feedback, many are limited by budget and labor issues in addressing patient nutritional and satisfaction needs.

## FOOD WASTE

Food waste is another key challenge for hospital food service providers. Factors such as personal preferences, dietary restrictions, poor appetites or feeling unwell often lead to food waste. In contrast, flavorful food and a large variety of healthy meal options can have a positive impact on patients' food intake.

In addition, studies show the effect of appetizing, nutrition-rich meals is crucial in terms of recovery, resulting in shorter hospital stays and significant savings.

## COMPLEX PROCESSES AND SYSTEMS

For organizations serving food, everything begins with menu planning. Food services must take into account various standards regarding food quality, quantity and cost. The amount of information and number of guidelines that must be considered can be overwhelming.

Managing food and diets for patients often requires juggling many different systems and applications from within a large and complex IT ecosystem. Acquiring new systems can be difficult and expensive and requires staff adoption and training.

## FOOD QUALITY AND SAFETY

To prepare high-quality meals, instructions with detailed ingredients and preparation steps are key. However, meal information for patients related to allergens, special ingredients, and nutritional values may not be available to hospital food service providers. In addition, modern healthcare environments require that patients have a variety of safe meal options, while ensuring that their choices comply with hospital and patient-specific requirements.



# CGI Aromi improves hospital food service processes

CGI is at the forefront of helping healthcare organizations improve the quality and delivery of their food services. Our conviction is that hospital meals can be appetizing, while providing necessary nutrients to support patient recovery, as well as the wellness of visitors and hospital personnel.

CGI's philosophy is to arm food services personnel with relevant, real-time data that can be used as a foundation for effective decision-making. Adopting modern digital tools and a data-driven management mindset delivers many benefits.

CGI Aromi is an end-to-end solution that supports all food service processes in the healthcare industry. It is a digital platform for enhancing food safety and transmitting meal information to diners seamlessly.

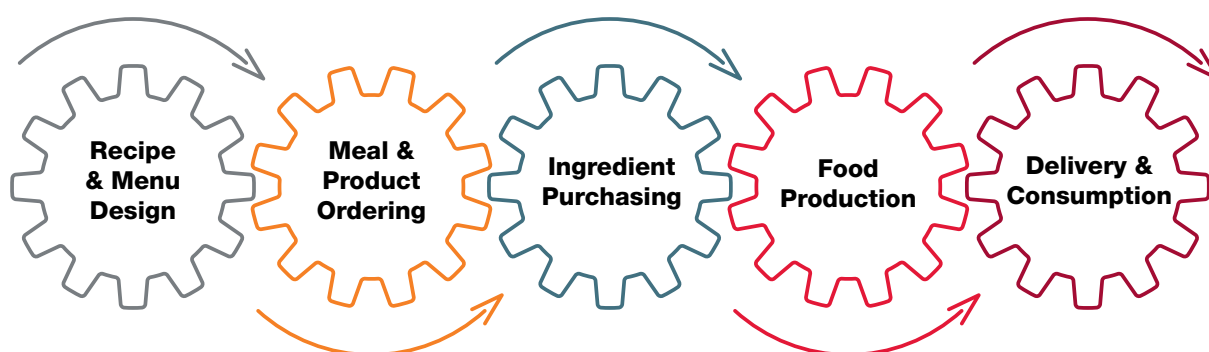


Figure 1: Food Production Processes Supported by Aromi

## AUTOMATION

Food service kitchens are time-intensive environments that involve many routine processes—from developing menus, to calculating recipe prices and nutritional information, to purchasing ingredients. Performing these processes manually contributes to decreased productivity in a busy and time-sensitive environment. CGI Aromi automates all of these processes and offers users a simple and easy-to-use interface. All processes in CGI Aromi are connected with input data flowing into all parts of the system, which decreases the time and effort for completing tasks.

To ensure every diner receives a meal, the number of required meals, which depends on the number of patients, are automatically ordered according to predefined metrics. Because a hospital environment can be fast changing, staff can make modifications to default orders by updating the required number of meals as needed.

If patients or visitors are allowed to make orders themselves, their orders will override automatic orders. With CGI Aromi, staff, diners and visitors order meals and other goods through a simple ordering portal. Moreover, CGI Aromi supports mobile devices, making bedside ordering comfortable and easy.



## CGI Aromi benefits

- Efficient production and delivery of healthy meals that are rich in nutrients
- Increased patient food safety and transparency
- Significant decrease in meal costs
- Decreased time and effort due to automation
- Data-driven decision-making
- Easy deployment and integration with other software
- Environmentally friendly

## VERSATILITY

CGI has invested heavily to ensure that integrating different software applications into CGI Aromi is easy. CGI Aromi is a highly customizable system that supports a variety of kitchen models. A centralized, decentralized or a hybrid model does not conflict with CGI Aromi because the solution can be configured to serve a variety of needs.

## COST-EFFECTIVENESS

For large food services that deliver food to multiple locations, central management is a prerequisite for cost-effectiveness. However, many food services manage a number of unique kitchens and enforcing standard management practices creates challenges.

CGI Aromi is designed around intelligent central management. This type of role-based management model provides enough flexibility for independent locations, while retaining centralized planning benefits, including cost-efficiency and quality. Local kitchen personnel have the ability to make daily adjustments regarding production amounts to ensure every diner receives the right meal.

## SAFETY AND TRANSPARENCY


Patient safety and confidentiality are built-in features of CGI Aromi. When a patient is admitted into the hospital, user credentials are created in CGI Aromi, and the electronic health record system supplies specific dietary requirements, which will be accounted for in patient meal plans. Since patients' nutritional needs might substantially vary during their stay, nursing staff are able to alter these requirements quickly and easily.

CGI Aromi notifies staff if the day's standard meal is not suitable for certain patients. This information is conveyed to the kitchen staff who resolve potential issues during the production stage. CGI Aromi pays special attention, in particular, to food that may cause an anaphylactic shock to certain patients.

CGI Aromi also provides diners with an online menu to review meal information allergens, ingredients and nutritional values.

## ENVIRONMENTAL CONSIDERATIONS

CGI Aromi also helps organizations achieve their environmental goals. CGI received the Climate Action Top5 award from the Helsinki Climate Partners for helping food service providers fight against climate change by reducing food waste.

A photograph of three chefs in a kitchen. They are wearing white chef hats and white jackets. They are gathered around a tablet computer, looking at the screen with interest. The kitchen is brightly lit, and there are various cooking items and ingredients visible in the foreground, including a cutting board with vegetables and a pot on the stove.

“By deploying Aromi, we have been able to improve our services, optimize operations and save costs. In particular, we have achieved savings due to the digital processing of all orders in the system.”

**Hannu Ali-Vehmas**

Director of Food Operations,  
Helsinki Elderly Citizens Foundation



For more information, contact  
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## **ABOUT CGI**

Founded in 1976, CGI is among the largest IT and business consulting services firms in the world. Operating in hundreds of locations across the globe, CGI delivers an end-to-end portfolio of capabilities, from strategic IT and business consulting to systems integration, managed IT and business process services and intellectual property solutions.

CGI works with clients through a local relationship model complemented by a global delivery network to help clients achieve their goals, including becoming customer-centric digital enterprises.

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