

*We are acutely aware that
preserving our surroundings
is essential
to people's health*



8. Environmental management

8.1 | Locus of environmental management in the workplace

Preventing and reducing the impact on the environment caused by our business activity is part of our way of envisioning our work and of putting our corporate values into practice. On the one hand, environmental efforts are linked to our commitment to quality and excellence, and on the other, we are acutely aware that preserving our surroundings is essential to people's health.

Quirónsalud closely monitors its compliance with environmental legislation. This can be seen in the fact that in 2015 none of the firm's hospitals or occupational health companies were sanctioned or subjected to inspection.

The group has also designed a series of procedures based on best practices to guarantee maximum optimization in our consumption of water and energy and also to ensure proper waste management. Fifteen of our medical facilities are currently certified according to the ISO 14001 standard (see table below), and another four are in the process of becoming certified in 2016 (Hospital Universitari General de Catalunya, Hospital Universitario Fundación Jiménez Díaz, Hospital General de Villalba, and Complejo Hospitalario Ruber Juan Bravo). All other centers have instituted management systems in line with standards, meaning the number of group centers with these certifications will gradually increase.

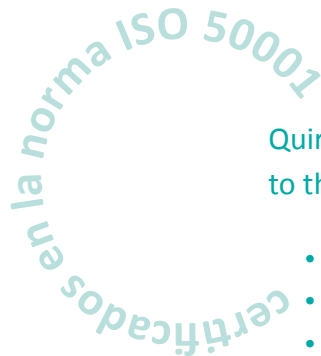


Quirónsalud hospitals certified according to the ISO 14001 standard



- Hospital Quirónsalud del Vallés
- Hospital Universitario Rey Juan Carlos
- Hospital Universitario Infanta Elena
- Hospital Quirónsalud San José
- Hospital La Luz
- Hospital Universitari Quirón Dexeus
- Instituto Oftalmológico Quirónsalud Barcelona
- Hospital Quirónsalud Albacete
- Hospital Quirónsalud Marbella
- Hospital Universitari Sagrat Cor
- Hospital Quirónsalud Torre Vieja
- Hospital Quirónsalud Murcia
- Hospital Quirónsalud Albacete
- Hospital Quirónsalud Costa Adeje
- Hospital Quirónsalud Tenerife

In addition, three of our hospitals have implemented an energy-management system and have attained ISO 50001 certification (see table below). Another two hospitals (Hospital Universitario Fundación Jiménez Díaz and Hospital General de Villalba) are in the process of becoming certified. Plans are also in place to perform audits of energy efficiency throughout 2016. These will be carried out in all medical facilities and in adherence of Royal Decree 56/2016 on energy efficiency. Also, improvement actions deriving from the findings of these audits are established.



Quirónsalud hospitals certified according to the ISO 50001 standard

- Hospital Universitario Rey Juan Carlos
- Hospital Universitario Infanta Elena
- Hospital Quirónsalud La Luz

For its part, the group’s occupational safety and health companies (Fraterprevención, Premap, and Unipresalud) have in all their centers a system for environmental management that is certified according to the ISO 14001 standard. These three companies and MC Prevención plan to carry out energy audits in 2016 in adherence of Royal Decree 56/2016 as well as to implement improvement initiatives based on the findings of these audits.



8.2 | Energy consumption and CO₂ emissions

We at Quirónsalud are aware that one of our primary sources of impact on the environment is our use of energy. That is why we have a company-wide commitment to optimize the energy used in our medical facilities in accordance with the rest of the procedures set in motion by the group, thereby guaranteeing maximum quality in our services.

In all our hospitals we optimize energy consumption through a number of means deployed from the corporate level down to the health center level. One of the most important of these is our energy-management policy. This policy is backed by corporate management and is applied throughout all the organization's medical facilities. We also perform analyses of the energy consumed in our hospitals, create energy load curves, adjust the wattage levels contracted to needs, adjust heating and air conditioning to optimum temperatures, and capitalize on outside weather conditions.

Also, efficient technology is used when remodeling or updating facilities. Therefore, investments in facilities and equipment include improvements to further reduce energy consumption by updating facilities and implementing more efficient technology such as systems to monitor energy, and also replacing conventional lighting sources with LED systems. In addition, hospitals such as Hospital Universitario Rey Juan Carlos, Hospital Universitario Infanta Elena, Hospital General de Villalba, and Hospital La Luz have systems that allow for constant measurement within those areas with the highest consumption levels.

In order to reduce energy consumption, corporate-level targets have been set for 2016 for all hospitals as a function of each center's activity and its capacity to take action. During 2015, goals were set to reduce energy consumption in hospitals with the ISO 50001 certification. This applied to each of the energy sources used by the hospital to perform its activity. Measures have been set up based on the type of center and degree of maturity of the management systems.

The results are as follows:

- **Hospital Universitario Infanta Elena:** In 2015, the hospital reduced its consumption of natural gas by 10.5% (kWh/hospital stay) and lowered its consumption of electricity (kWh/hospital stay) by 3.5% compared to 2014.
- **Hospital Universitario Rey Juan Carlos:** In 2015, the hospital reduced its consumption of natural gas by 21.3% (kWh/hospital stay) and lowered its consumption of electricity (kWh/hospital stay) by 13.1% compared to 2014.
- **Hospital Quirónsalud La Luz:** In 2015, the hospital used slightly more energy for hot water (0.15%) than in 2014 (measured in kWh/patient). Consumption of energy for cooling purposes (kWh/patient) rose by 7.7% compared to 2014.

In some hospitals that do not work under the ISO 50001 management system but do have a system for environmental management, objectives were set to reduce levels with respect to 2014 consumption:

- **Hospital Quirónsalud San José:** Reduce electricity use by 30% and fuel consumption by 53%.
- **Hospital Quirónsalud del Vallés:** Reduce electricity use by 10.4%.
- **Hospital Quirónsalud Tenerife:** Reduce electricity consumption (kWh/stay) by 3.9%.
- **Hospital Quirónsalud Costa Adeje:** Reduce electricity consumption (kWh/stay) by 14.8%.
- **Complejo Hospitalario Ruber Juan Bravo:** Reduce electricity use by 8.4% and gas consumption by 0.12%.

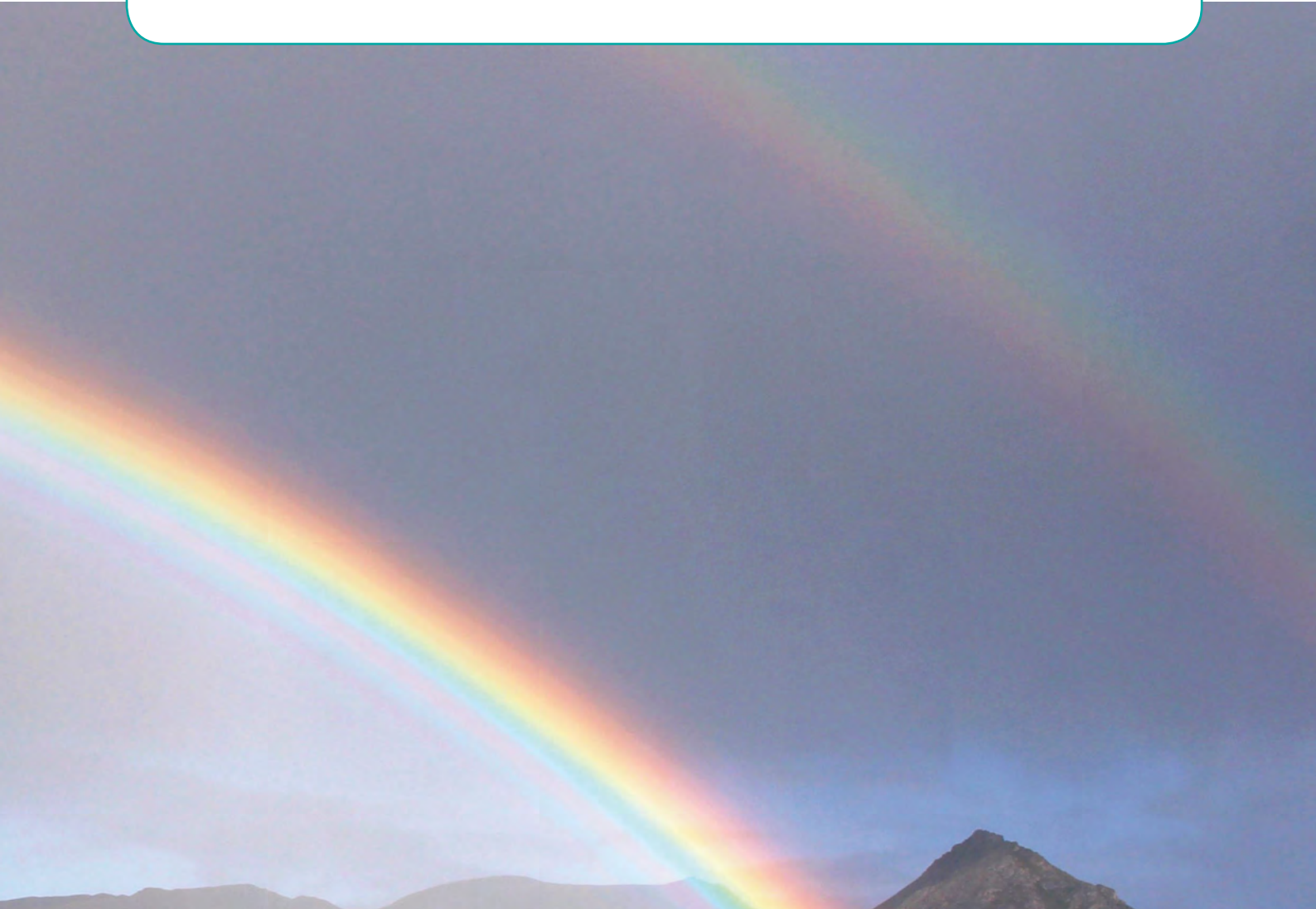
Also noteworthy are the initiatives to promote sustainable construction. The Quirónsalud central offices are located in a remodeled building with grade A+ energy efficiency. Since the planning stage, Hospital General de Villalba and Hospital Universitario Rey Juan Carlos incorporated systems to save energy and promote sustainability, including alternative energy sources and ecologically efficient designs consisting of plant-covered roofs and ventilated facades, among others.





Commitment to renewable energy

Several hospitals make use of energy from renewable sources and more efficient energy sources. Hospital Quirónsalud del Vallés has both thermal and photovoltaic solar panels. Hospital Universitario Infanta Elena, Hospital Universitario Quirónsalud Madrid, Hospital Quirónsalud Campo de Gibraltar, Hospital Universitari Dexeus and Hospital Quirónsalud Barcelona have thermal panels. Hospital Universitario Rey Juan Carlos and Hospital General de Villalba have systems of micro combined heat and power.



2015 energy consumption in hospitals

The energy consumed in hospitals during 2015 has generated the following greenhouse-gas emissions, measured in metric tons of CO₂ equivalent:

2015 energy consumption and ratios of energy consumption in hospitals

Natural gas consumption	68,074,507 kWh
Ratio of natural gas consumption by surface area	67 kWh/m²
Ratio of natural gas consumption by hospital stay	50 kWh
Ratio of natural gas consumption by number of beds	10,880 kWh
Electricity consumption	161,556,671 kWh
Ratio of electricity consumption by surface area	158 kWh/m²
Ratio of electricity consumption by hospital stay	119 kWh
Ratio of electricity consumption by number of beds	25,820 kWh

2015 greenhouse-gas emissions associated with energy consumption in hospitals

Greenhouse-gas emissions from natural gas consumption (scope 1) ¹	13,683 metric tons of CO₂ equivalent
Greenhouse-gas emissions from electricity consumption (scope 2) ²	64,623 metric tons of CO₂ equivalent

1. Scope-1 greenhouse-gas emissions are those that are directly generated by the organization. They are calculated by taking into account the emission factor for natural gas published by the Ministry of Agriculture, Food, and the Environment for 2015.

2. Scope-2 greenhouse-gas emissions are indirect emissions produced during the process of generating the electricity consumed by the organization. This figure is calculated by taking into account the emission factor for natural gas published by the National Authority for Markets and Competition for the Spanish energy mix in 2015 irrespective of guarantees of origin.

Some of the most noteworthy measures established in 2015 to reduce other greenhouse-gas emissions include:

- Efforts to reduce business-related trips, thereby lowering indirect, scope-3 greenhouse-gas emissions (indirect greenhouse-gas emissions other than those of scope 2). Also in 2015, videoconferencing systems were set up in all medical facilities. These are used to hold meetings. Plans are in place to publish a travel policy including guidelines to minimize travel.
- Hospital Universitario Infanta Elena included a charging station for electric vehicles in the employee parking garage so as to reduce scope-3 indirect greenhouse-gas emissions associated with employee commutes. The hospital is currently considering similar stations for the public parking area.
- In 2016, each hospital will have greenhouse-gas emissions as part of its corporate balanced scorecard.

Group company Fraterprevención has a best-practices guide for energy saving, and has changed a number of lighting systems in favor of more energy-efficient options. For its part, MC Prevención also has measures in place to optimize energy consumption. Motion sensors have been installed in bathrooms located in medical facilities and offices and in newly built spaces. Since 2014, LED lighting has been installed in health centers and as part of renovation projects. Also, timing systems have been included as a control mechanism in

heating and air conditioning systems so that these systems do not remain on at night and during weekends.

Unipresalud conducts monthly oversight of consumption levels and implements best practices aimed at reducing energy consumption, including replacing halogen bulbs with LED systems. In addition, Unipresalud receives its electricity from a company that guarantees that its energy comes from renewable sources. An objective has been set for 2016 to reduce electricity consumption by 2% relative to 2015 levels. In addition, a document with environmental best practices will be sent to each regional directorate and installation of motion sensors for lighting systems will begin in larger health centers.

Premap set a 2015 objective to reduce electricity consumption by 2% relative to 2014. A number of measures have been introduced to reduce energy consumption, such as changing old ventilation systems in the company's headquarters and laboratory, updating them with automatic systems. This led to a 30% reduction in consumption. Studies have been performed of electricity consumption in offices to determine consumption of reactive power and adjust any deviations. Old fluorescent lights have been replaced with energy efficient fluorescents, and motion sensors for lighting systems have been installed in bathrooms. Also, development has begun on an application to measure electricity and water consumption, which will make it possible to set objectives for reduction in each center. Lastly, further work has been done within the consciousness-raising plan for efficient use of energy resources among employees.

The 2015 energy-consumption levels within occupational safety companies within the group are as follows:

2015 electricity consumption in occupational safety and health companies ³

MC Prevención	1,394,705 kWh
Unipresalud	1,505,941 kWh
Premap	3,799,932 kWh

3. Data on Fraterprevención not included.

*We are committed
to responsible use of water
in our medical facilities*



8.3 | Water consumption

We at Quirónsalud also strive to use water in the most optimal fashion in our health centers. To do so we have enacted a number of measures, such as installing low-flow fixtures on faucets, installing consumption-minimization systems in toilets and, whenever possible, making use of rainwater. In some centers, water has been recovered in vacuum chambers using the Venturi process (Hospital Universitario Infanta Elena), while in others the kitchen tunnel washer has been updated (Hospital Universitario Fundación Jiménez Díaz) and certain plants have been replaced with others requiring less water, therefore reducing the demand for water (Hospital Universitario Infanta Elena, Hospital Universitario Rey Juan Carlos, and Hospital Quirónsalud Ciudad Real).

Some hospitals with a system for environmental management have established 2015 targets for water consumption measured against 2014 consumption levels:

- Hospital Universitario Infanta Elena, 13.6% reduction
- Hospital Universitario Rey Juan Carlos, 17.6% reduction
- Hospital Quirónsalud Tenerife, 7% reduction
- Hospital Quirónsalud Costa Adeje, 0.3% reduction
- Hospital Universitario Fundación Jiménez Díaz, 13% reduction
- Complejo Hospitalario Ruber Juan Bravo, 11.6% reduction

As a result of these initiatives, total water consumption in our hospitals during 2015 was 976,371 m³.

In accordance with current legislation, hospitals with substantial levels of water consumption are permitted to dispose of waste water and perform periodic studies of this water to ensure that its characteristics remain within authorized levels.

The following mean levels of greenhouse-gas emissions

were generated due to electricity consumption in occupational safety companies (measured in metric tons of CO₂ equivalents):

Greenhouse-gas emissions associated with electricity consumption (scope 2)⁴ in occupational prevention companies in 2015⁵

MC Prevención	557,882 metric tons of CO ₂ equivalent
Unipresalud	602,376 metric tons of CO ₂ equivalent
Premap	1.519,973 metric tons of CO ₂ equivalent

4. Scope-2 greenhouse-gas emissions are indirect emissions produced during the process of generating the electricity consumed by the organization. This figure is calculated by taking into account the emission factor for natural gas published by the National Authority for Markets and Competition for the Spanish energy mix in 2015 irrespective of guarantees of origin.

5. Data from Fraterprevención not included.

8.4 | Waste management

All of our hospitals use authorized waste-management firms to dispose of their hazardous waste products. Urban waste and similar waste products are managed by authorized firms or using municipal waste-collection systems in the case of health centers located in city centers. Waste is collected separately according to type, thus facilitating subsequent treatment and assessment. All hospitals have worked to properly separate waste; in addition, hospitals with waste-management systems also monitor medical waste that is generated.

We have intrahospital waste-management procedures in place. According to these, we have systems in place for types of hazardous and non-hazardous waste, as well as the receptacles that should be used to separate these waste products, routes and means used to transport them within the hospital, and final storage spaces used before they are removed by an authorized waste-management company. Biological (medical) waste is also treated by authorized firms, thereby ensuring at all times that these products are inertized and disposed of safely. Waste from electric and electronic devices and printer toner are managed by authorized and specialist firms, which ensure proper recycling and/or reuse.

Waste paper and cardboard, glass, and light packaging are recycled. Urban waste and similar waste products are managed through authorized waste-management centers within each region of Spain. In addition, a project for selective gathering of light packaging has been set up in partnership with ECOEMBES. Participating hospitals include Hospital Universitario Infanta Elena, Hospital Universitario Rey Juan Carlos, and Hospital General de Villalba. The aim of this project is to raise awareness among staff and patients of the need to separate light containers and also to give these groups information on the amount of waste that is recycled. The project will be implemented in Hospital Quirónsalud del Vallés in 2016.

Hand-drying systems have been introduced in the public restrooms in a number of hospitals in order to increase hygiene and also to reduce the amount of waste paper and processes needed to dispose of waste paper.

In 2015, some of the hospitals that have a system for environmental management have set targets concerning the

creation of waste products and separation, setting goals with respect to 2014 levels:

- Hospital Quirónsalud Tenerife: 3% reduction in medical waste per number of care cases.
- Hospital Quirónsalud Costa Adeje: 2% reduction in medical waste per number of care cases.
- Hospital Universitario Infanta Elena: increase the amount of light packaging that is recycled by at least 9,900 kg.
- Hospital Universitario Infanta Elena: increase the amount of light packaging that is recycled by at least 14,800 kg.
- Hospital La Luz: 2.9% reduction in medical waste per number of care cases.

Also in Fraterprevención, MC Prevención, Unipresalud, and Premap, all hazardous waste products are managed by authorized suppliers of these services. Urban waste and similar waste products are managed by authorized firms or using municipal waste-collection systems. In all cases, instructions are available on managing both non-hazardous and hazardous waste, including medical waste (deriving from medical examinations), electronic waste, fluorescent lighting, and expired medicinal products.

Additionally, Premap only works with paper suppliers that are certified by the Forest Stewardship Council, which guarantees that paper is sourced from forests that are managed sustainably, and the EU Ecolabel, which ensures that manufacturing processes have included measures to reduce environmental impact and health risks.

Participation in Climate Change Cluster

Quirónsalud has joined the Climate Change Cluster organized by the association Forética. This cluster brings together large Spanish enterprises to share ideas on leadership and know-how in this realm.

The Climate Change Cluster channels the main climate change-related trends and discussions going on worldwide into the Spanish business context, contributing to knowledge creation, collaboration with public authorities and opinion leaders, and developing a profile as Spanish leaders in climate change.



8.5 | Oversight and control of ionizing radiation

All hospitals that perform diagnostic radiology, radiotherapy, and nuclear medicine have radiation protection and dosimetric oversight services available to protect both individuals and the environment. Radioactive isotopes used in clinical diagnosis are overseen daily by specialist staff members and undergo statutory annual inspection by the Nuclear Safety Council. Additionally, waste that is derived from care activities is managed in adherence of specific procedures, undergoing daily oversight to maintain control over radioactive activity until the half-life of these substances is reached and also to ensure that the substances have been decontaminated.

8.6 | Staff environmental awareness-raising

During 2015, staff environmental awareness-raising campaigns have been enacted in all our medical facilities. These campaigns were announced and promoted using the intranet, thus reducing the amount of paper consumed. Other similar campaigns have promoted waste separation in all our medical facilities. New hires also receive information on these initiatives during their orientation process.

The following specific campaigns were carried out in 2015:

- World energy saving day: October 21, in all centers.
- International Day for the Preservation of the Ozone Layer: September 16 in Hospital Universitario Rey Juan Carlos.
- Hospital Quirónsalud Tenerife: social-media campaign on World Environment Day; all staff took part.
- Hospital Quirónsalud Sagrado Corazón: environmentally themed screensavers every month throughout the year.
- Launch of the water-conservation campaign in Hospital Universitario Fundación Jiménez Díaz.

