The career performance of the athlete

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The interest in gathering athletes’ data to be able to evaluate the needs and plan for distribution of resources in Catalonia began after doctors Jesus Galilea and Josep Estruch took a trip in 1959 to Rome, a city that was preparing for the 1960 Olympic Games, where they visited the Centre of Sports Medicine that was directed by professor La Cava.

From this visit, the idea was born to create the Youth Sports Medicine Centre in Barcelona, in 1961, located on Permanyer street, that was open until 2005. The Barcelona Federation of Sports Medicine was also organized, in order to group together all the medical professionals interested in the world of sports.

The second important impulse in the creation of databases to gather athletes’ data took place in 1987, when Barcelona was awarded the organization of the XXV Olympiad.

This prompted the creation of the High-Performance Centre and one of its objectives was to offer the world of sports a series of resources to be able to improve the performance of our athletes.

Other organizations began forming to provide services to athletes, like the Superior Sports Council Archives (CSD) in 1993.

One of the athletes’ needs was to have medical professions that could help them achieve maximum sport performance while maintaining their health. Seeing this need, in 1988 the medical specialization in physical education and sports was born.

The objectives established by the Sports Medicine Centre in compiling the athletes’ data was:

- To compile real-time information about the athlete until they did not have any more.
- To provide an adequate service to satisfy the needs of the high-level sports world.
- To preserve information.
- To compile data for the general society that would allow for better planning, research and allocation of available resources.

In the case of the High-Performance Centre, there were three large databases created with different purposes. The Health Department, via the Terrassa Health Consortium, was tasked with ensuring the athletes’ health, and the athletes’ data was integrated into the Terrassa Health Consortium’s data system and today forms part of the Shared Clinical History of Catalonia (HC3). In the other two databases they compiled the physiological and sports performance data and information from the ARC program for scholarships and sports results.
During these 28 years of activities providing health assistance to athletes, today some 17,359 patients’ clinical histories have been gathered. Of these, more than 5,500 are in paper format, which inevitably creates some challenges in preserving and consulting them.

For this reason, in 2012 the data was migrated into the informative history of the Terrassa Health Consortium and this brought a series of advantages such as a lower space requirement, the ability to utilize the data, the option to view the data remotely, process the data, and the ability to share data with other professionals.

In order to have an idea of the work done in support of top-level athletes, I will give you a description of the types of athletes we serve at the CAR. The majority of athletes at the CAR participate in individual and Olympic sports.

The other point I would like to highlight is the increase that we have seen through the past years in women’s sport, which has brought along big achievements in the international scope. If we look at the following graphic, we notice that after 2010 the ratio of Olympic medals won by women compared to men is greater for the women.
The observations we can extract from these years serving athletes and creating databases to compile this information are the following:

1. It is very important to accurately plan the design of the databases so that the data collected is relevant and easy to consult.
2. The databases must be compatible, so that the information can be shared easily and efficiently.
3. Access to the data needs to be made possible.
4. Protective steps must be taken to safeguard the image and privacy rights of the individual.
5. It is necessary to consider how to preserve the information in non-digital file formats.