The objectives of this project were to determine the present situation of endocrinology in Europe and to discover the views of endocrine clinicians and researchers on the future of the discipline. 3111 individuals responded to the survey. Those with a clinical role provided information on the disease areas in which they work, their role in disease management and their expectations on the future of endocrinology. In a similar way, researchers were asked to provide information on their professional situation, research collaborations and funding, as well as their expectations for the discipline.

42.4% of ESE members responded to the survey, making up 49% of the total responses. Calculated against the membership of 41 European national societies that supported the survey, these responses represent 13.3% of their membership.

Respondents were asked which themes matter most for the future of endocrinology and would benefit from outreach towards European policy decision makers. Together with the opinions of the 41 National Societies that are part of ECAS, these survey findings allow the development of an up-to-date picture of endocrinology in Europe, and what the key challenges are for the future. In this way, ESE together with specialty and national societies can advocate on behalf of our community and the field of endocrinology. This will enable ESE to influence decisions at a European level which affect clinical care and research.
2835 respondents provided their view on the clinical aspect of endocrinology. 41% of these combine clinical work with research. Endocrinology is the primary discipline for 70%, diabetology for 14%. The other respondents identified their primary discipline as paediatrics, internal medicine, andrology, gynaecology, nuclear medicine, surgery and others. 700 respondents identified themselves as Head of Department, and provided information on patient workload, department size and staffing.

Respondents provided information on which disease groups they most work with, what they consider the primary task of the endocrinologist in these diseases and where improvements can and need to be made. The survey includes a fair balance of university, public hospital and private practice based clinicians.

The subjects of Diabetes Obesity and Metabolism (DOM) as well as Thyroid (THY) command the highest workload in the endocrine clinic. In rare endocrine disease a major emphasis is put on improving diagnosis, development of guidelines and equal access to care and treatment. Taken together, rare endocrine diseases account for a large proportion of endocrine patients, similar to diabetes or thyroid. Thyroid disease, neuro-endocrine and pituitary tumours are primarily treated in a university hospital setting, whereas DOM, thyroid, and to a lesser extent, bone disorders are most often treated in public hospitals and private practices.

**Future of Endocrinology**

More than 80% of respondents expect patient numbers to increase, and for their issues to be more complex

Less than 50% of respondents are positive about future recruitment of new endocrinologists improving, or that students will be more interested in the field in future

**Early Career perspective**

The survey included 604 respondents with clinical duty below the age of 35 yrs. Within this group, a male/female ratio of 1/3 highlights a continuing increase in the representation of women in the field.

The views of the young career group on the future of endocrinology are broadly aligned with those of their more senior colleagues. The need to increase the capacity of endocrinology in Europe is recognised, with a requirement to further aim towards unified training and accreditation across Europe, as well as the creation of more young consultant positions. The high workload in DOM and THY has been identified in the survey as an area for which support and more extensive training programs are needed to match demand.

**~75% of survey respondents under 35 years old were female**

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**Demographics**

The demographics of the discipline have developed over the last 20 years to a 2/1 female to male ratio among clinicians. According to the demographics of the survey respondents, the number of endocrinologists has remained stable over time with similar numbers in each age cohort. This is in contrast to the increasing workload for endocrinology departments across Europe.

**Multi-Disciplinary Teams**

Endocrinology in all of its disease areas builds on a high level of interdisciplinary care, and many respondents report the existence of formal multidisciplinary teams. However, this is variable between the different disease areas, and the integration of different disciplines within one specific disease area is variable. Across the different disease areas, multidisciplinary teams in endocrinology most often include specialists in surgery, radiology oncology and histology. The DOM area has a high level of nursing and cardiology staff integrated into their teams.
1446 respondents reported on their professional situation related to where they do their research, in what professional status they work and for what duration their position is funded. Research effort is concentrated in DOM, followed by THY diseases. Overall, endocrine research is diverse, with projects working on a wide area of functional topics.

The research community in Europe is highly collaborative and research is being undertaken in a larger national (53%) or European/international (47%) collaboration perspective. Only 6% of respondents cited EU-related Research Funds as the source of their funding. The awareness of European funding programs and mechanisms is low. Although most respondents believe the processes are transparent and fair, more information and support is requested. The awareness of major European funding schemes such as Horizon 2020, European Research Council grants and Marie Skłodowska-Curie fellowships and activities was lacking, with over 30% having never heard of them. The reason for this needs to be explored further, and the question must be asked whether some regions or areas of research are receiving less information on EU funding that others.

Over 30% had never heard of major European funding schemes such as Horizon 2020, European Research Council grants and Marie Skłodowska-Curie fellowships and activities. Only 27% of the national societies that provided input to the survey agreed that endocrinologists, in their country, were successful in securing research grants, with 27% neither agreeing or disagreeing, and 46% disagreeing. Cardiology and oncology are considered most successful.

Over 30% had never heard of major European funding schemes such as Horizon 2020, European Research Council grants and Marie Skłodowska-Curie fellowships and activities.

The early career perspective: 318 respondents provided their view on the research environment. Primarily the awareness of research grants is low compared to the complete cohort. Only 1 to 3% has so far been involved in an application for European research grants. The Marie Skłodowska-Curie program and its details are relatively unknown to early career scientists.
When asked to rank different aspects where policy and advocacy can support the future of endocrinology, respondents provided the following prioritised list: 1. Protecting and securing the attractiveness of endocrinology as a discipline, 2. Providing uniform education and accreditation standards, 3. supporting equal access to diagnosis and medical care and 4. Securing research funding. However, attention was also asked for prevention and awareness strategies for prevalent diseases, supporting the needs in rare endocrine diseases, and engaging with high quality expert opinions in specific debates and legislative efforts.

An effective policy and advocacy approach requires a collaborative effort with different stakeholders. The survey found clear evidence that a strong majority of the national societies’ leadership expect all stakeholders, from speciality societies, national and international societies, patient advocacy organisations and industry to collaborate on future policy and advocacy activities. The feedback from 12 ESE corporate industry partners, in a short industry focussed survey, was aligned towards the important themes highlighted by the large survey, and a multi-stakeholder approach was also very much considered a prerequisite for a successful approach.

Most respondents underline a desire to be kept informed about policy and advocacy related activities and outcomes. This can be in the form of updates during meetings, impactful editorials in journals, and ongoing updates through the ESE website.

In conclusion:
This survey constitutes the largest ever effort to map endocrinology in Europe, representing the professional situation and views of 3111 clinicians and researchers, as well as their expectations and needs around the future of endocrinology. This survey serves as a basis for ESE to develop a European Endocrine White Paper, that will allow for a fact-based approach to policy and advocacy in Europe. This White Paper is expected to be available in autumn 2019.

To stay aware of the policy and advocacy developments and efforts at ESE visit:
www.ese-hormones.org/advocacy

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