II Jornades de Casos d´Ús de la Intel·ligència Artificial Generativa en Medicina Familiar i Comunitària

Antoni Sisó Almirall

President de la CAMFiC. Director de Recerca de CAPSBE. Professor titular de Medicina, Universitat de Barcelona.

Barcelona, 19 de març de 2026

IA Generativa en Atención Primaria: Usos, Creencias y Competencias

Radiografía de la profesión en Cataluña | Resultados Encuesta CAMFiC 2025

Presentado en: Jornadas de Casos de Uso (12 de febrero)
Fechas de campo: 30 Octubre – 17 Noviembre 2025

Finançat en:
Generalitat de Catalunya

Ficha Técnica: Una muestra representativa y reciente

N = 373

Profesionales de Atención Primaria

30 Oct – 17 Nov 2025

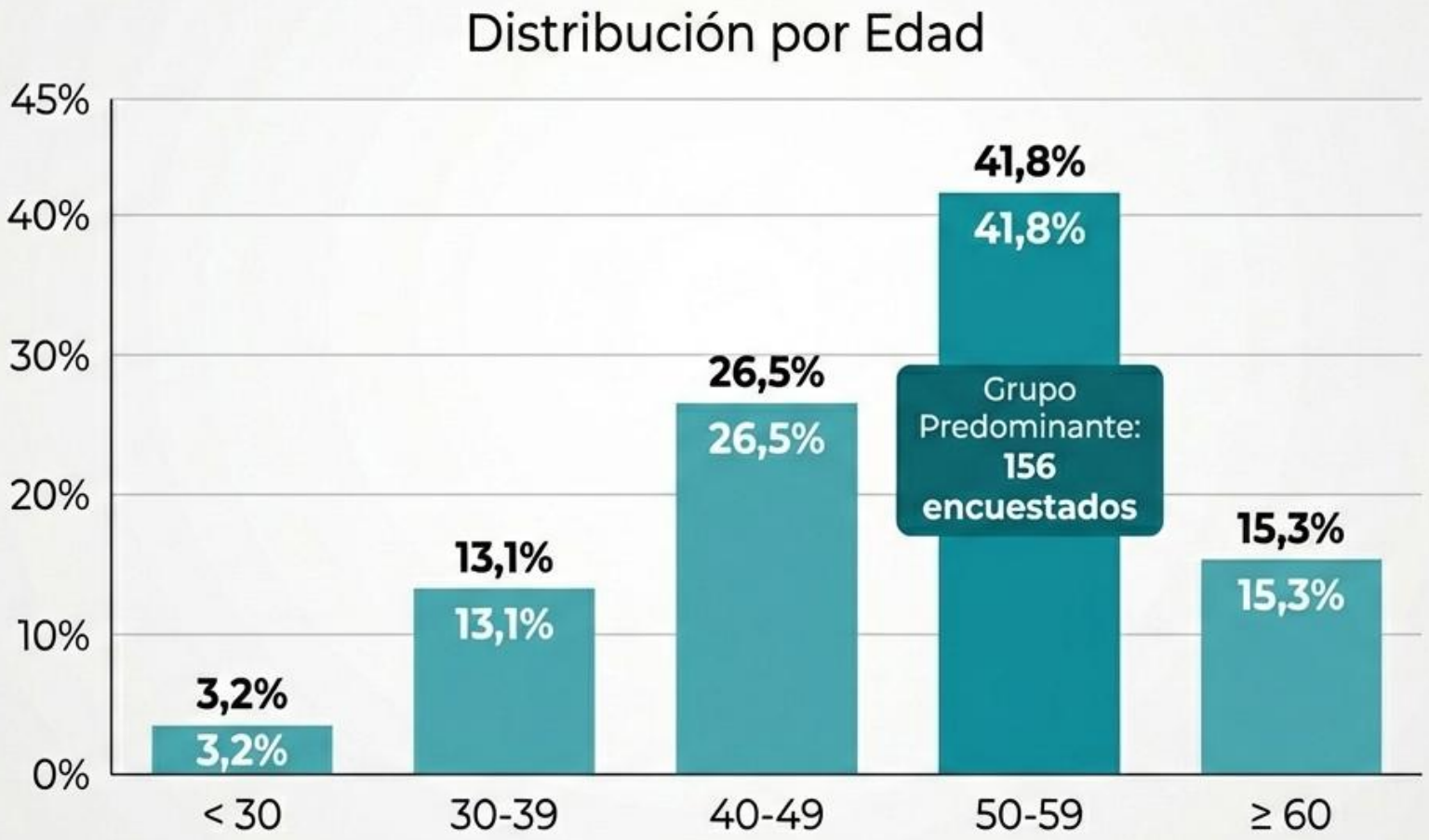
Trabajo de campo reciente

Ámbito: Cataluña

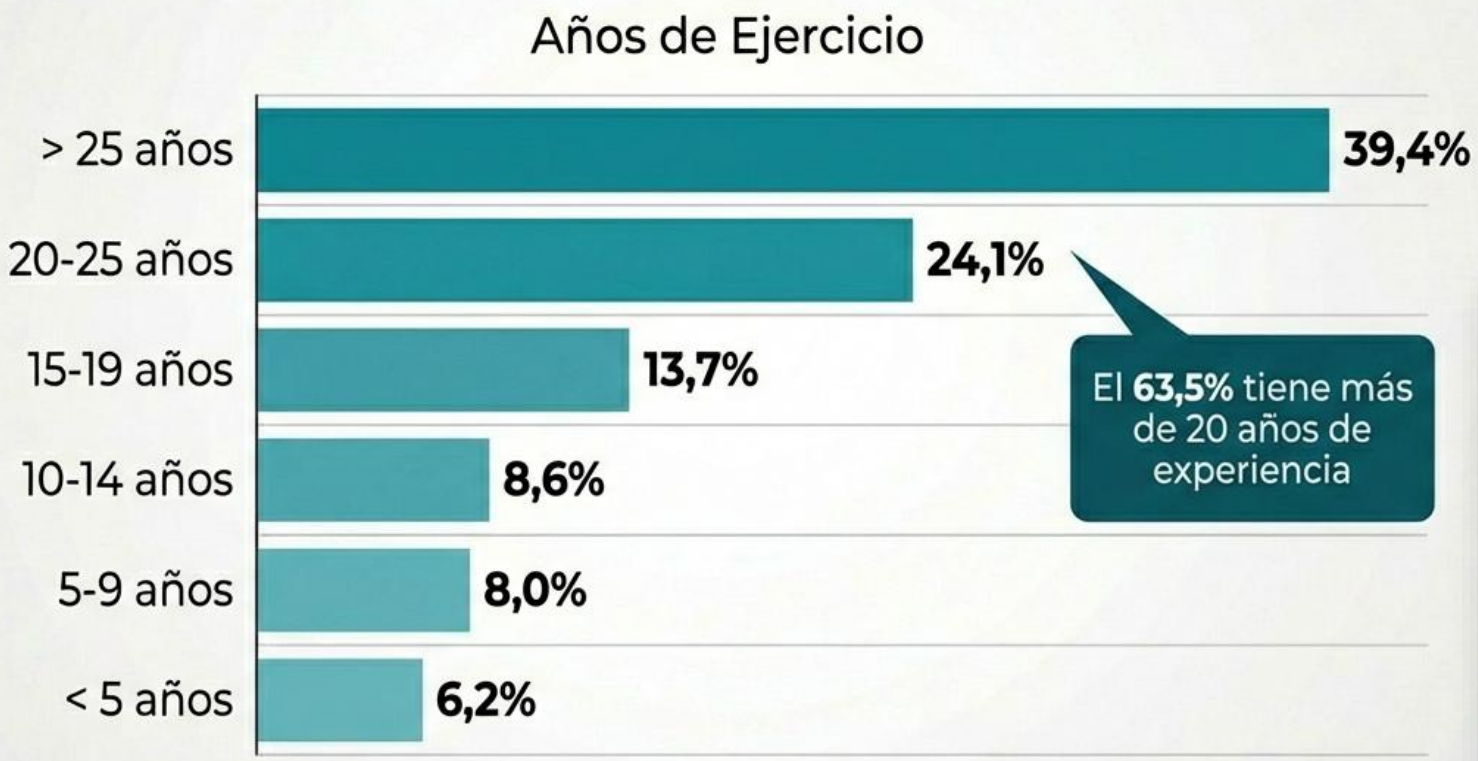
Societat Catalana de Medicina Familiar i Comunitària

Esta encuesta captura el estado de la cuestión en tiempo real, ofreciendo una visión cuantitativa de cómo la inteligencia artificial se está integrando en las consultas antes de la regulación formal.

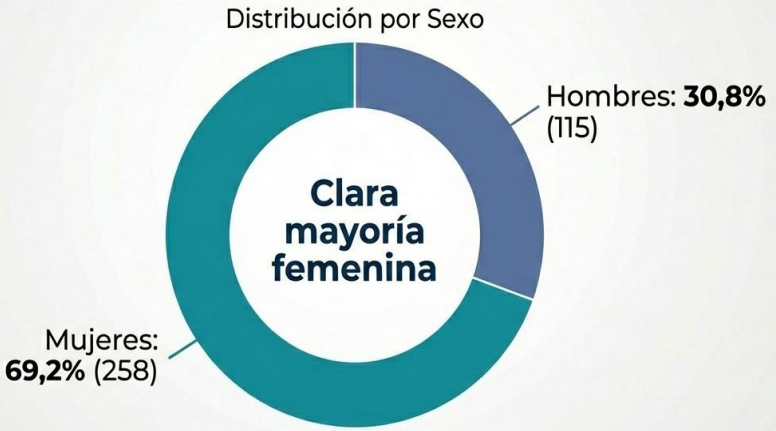
Perfil Demográfico: Una fuerza laboral madura



Experiencia Profesional: Perfil Senior



Perfil Demográfico: Feminización de la profesión



Ámbito Geográfico y Perfil Profesional

Perfil Profesional Predominante:

89,5% Medicina de Familia

7,0% Enfermería

3,5% Otros (Pediatría, Residentes)

Liderazgo y Responsabilidad Docente

32,4%

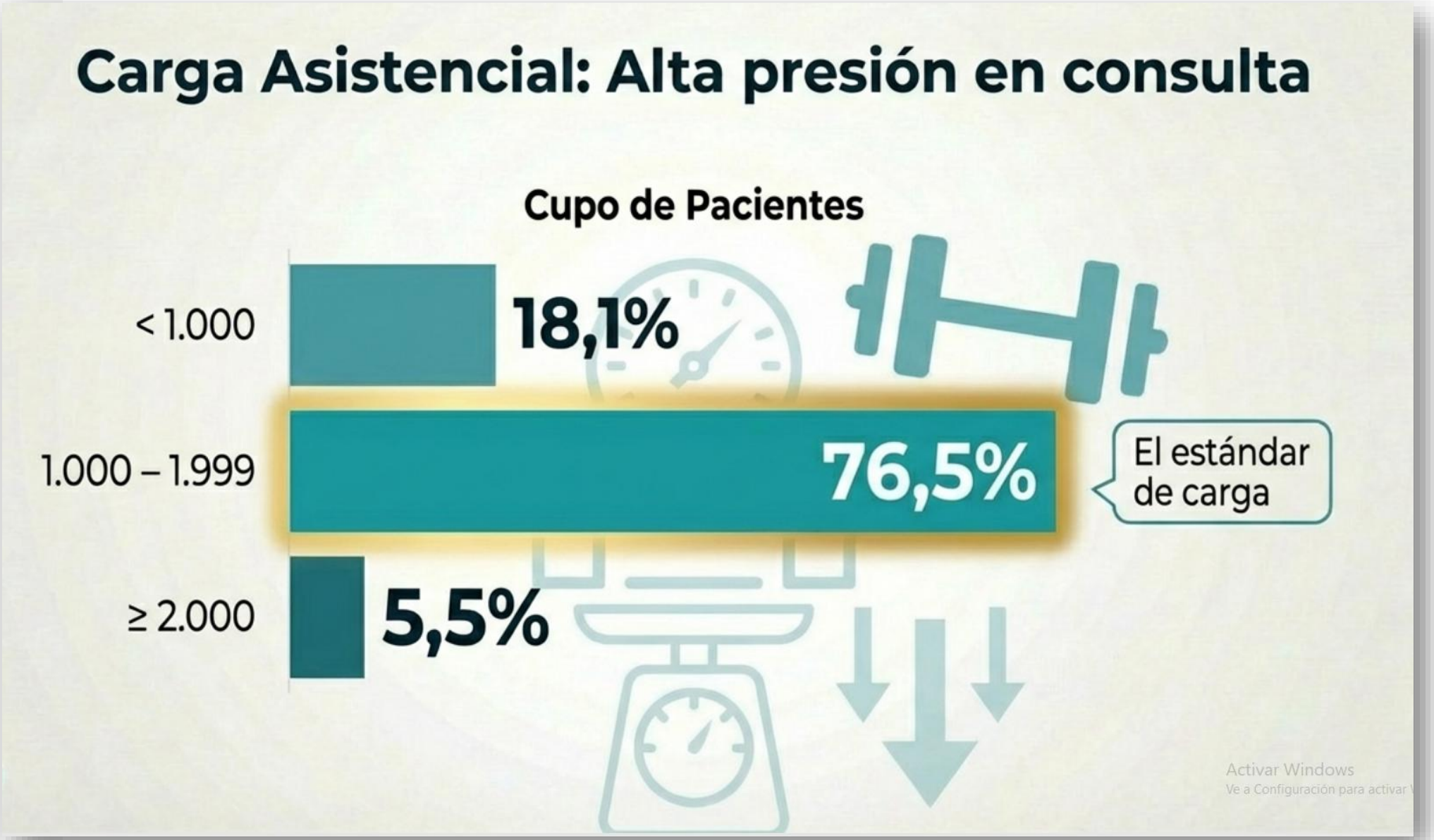
Son Tutores de Residentes (MIR/EIR)

Efecto multiplicador en la formación

12,1%

Ocupan cargos de dirección o responsabilidad

Carga Asistencial: Alta presión en consulta



Frecuencia de uso de IA Generativa

Contexto de Uso: Convergencia Tecnológica

Top 3 Tareas Principales

Uso predominante como 'Bibliotecario' y 'Editor'

Usos Secundarios y Emergentes

Apoyo Administrativo y Educativo

Soporte administrativo (emails/actas)

22,5%

Educación sanitaria para pacientes

21,7%

Uso Clínico Directo (Emergente)

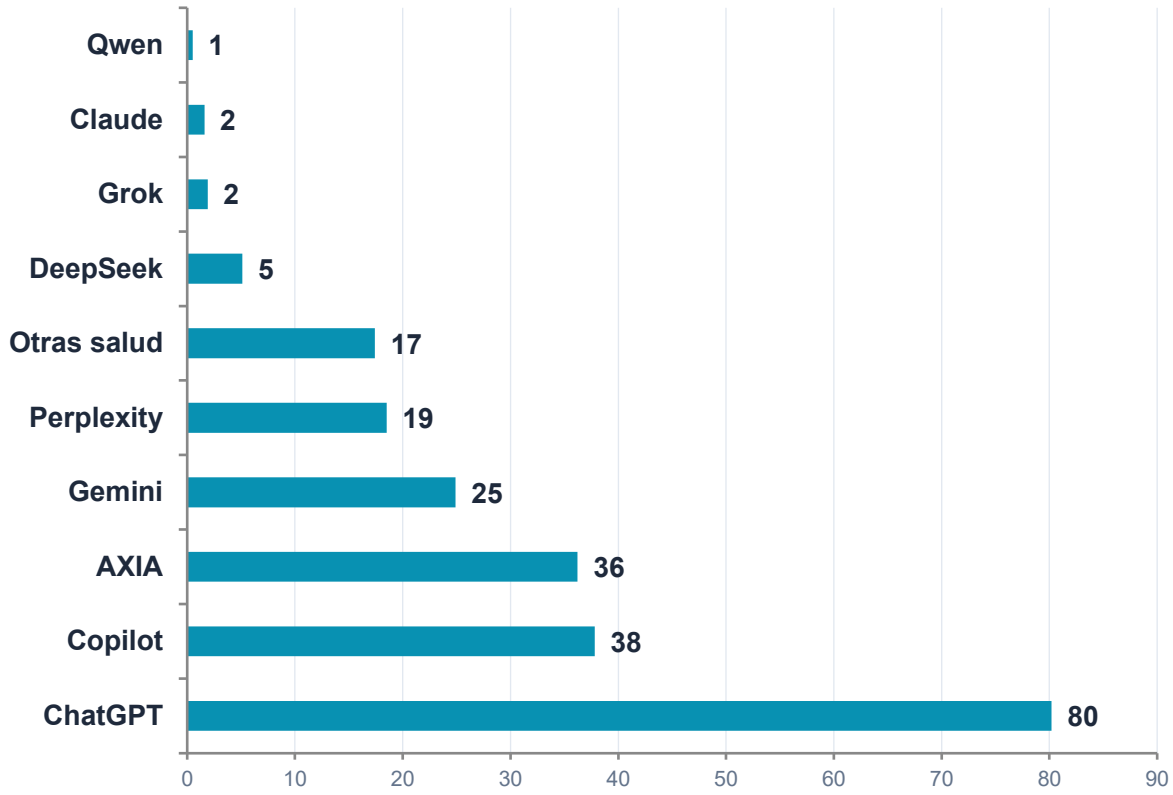
Escriba (notas clínicas)

9,1%

Triaje / Estratificación

~6%

Herramientas utilizadas (últimos 3 meses)



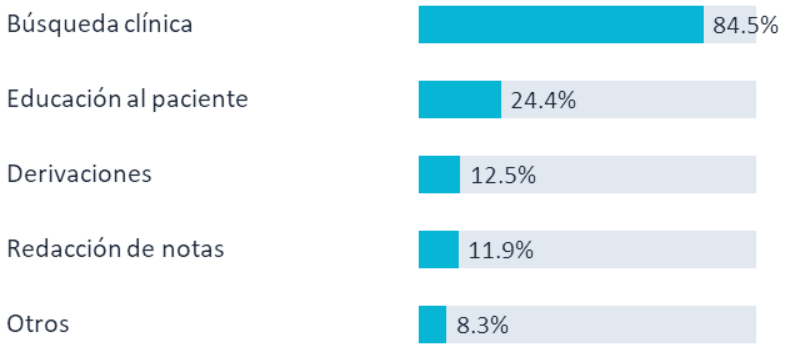
ChatGPT domina

80,2% lo ha utilizado en los últimos 3 meses. Es también la herramienta de pago más frecuente (63,6% de suscriptores).

AXIA institucional

36,2% lo ha usado. 58,2% conoce qué es. Entre usuarios, satisfacción media 3,49/5 (51,8% satisfechos).

Principales usos de AXIA (n=168 usuarios)

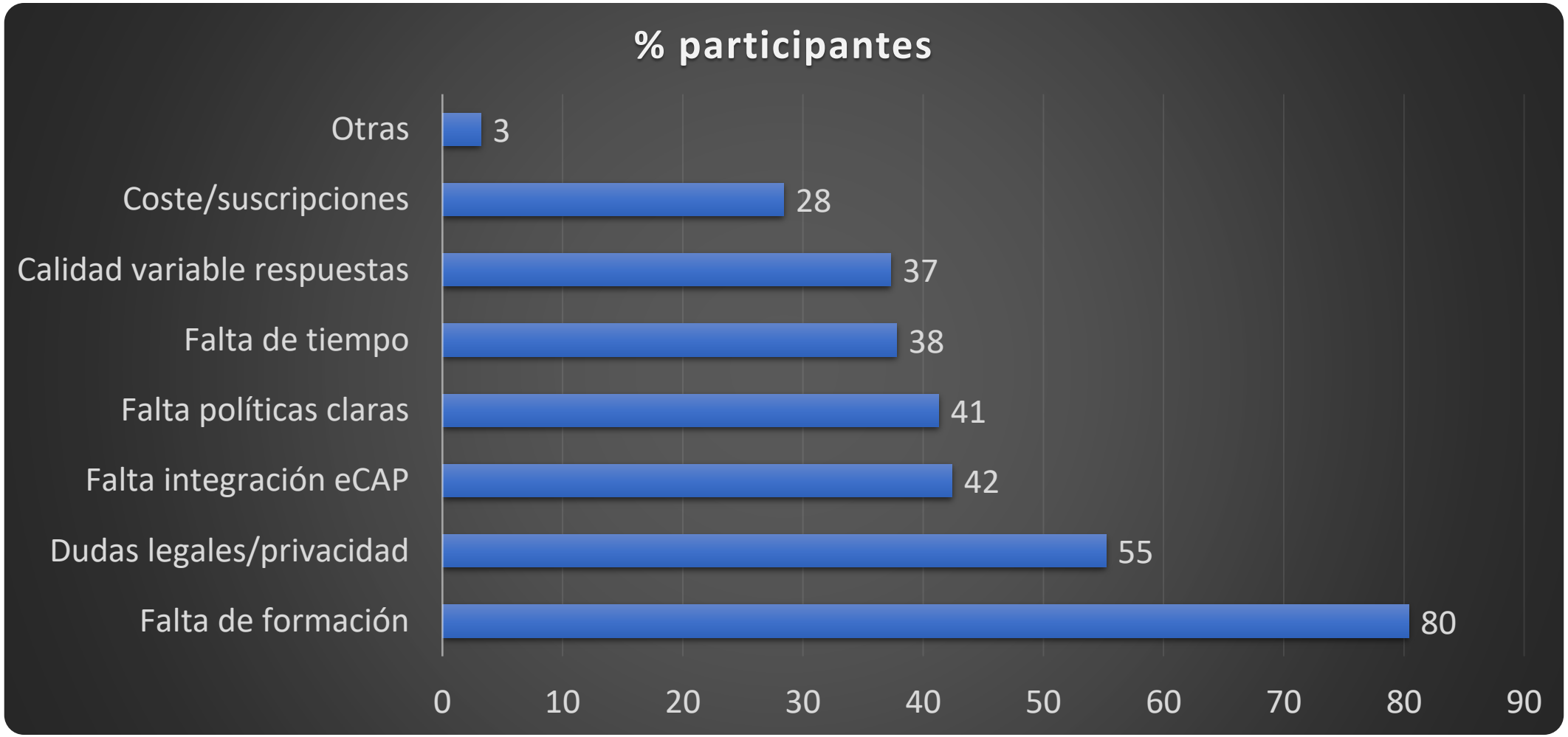


Modelos de Financiación

17,7%
del total paga una suscripción

Inversión personal en eficiencia.

Barreras para adoptar IA generativa



Utilidades potenciales percibidas

Caso de uso	Media ± DE	Neg (1-2)	Neutral	Pos (4-5)
Búsqueda / síntesis evidencia	**3,86 ± 1,21**	14,5%	17,4%	**68,1%**
Traducción / adaptación cultural	**3,61 ± 1,35**	21,4%	20,1%	**58,4%**
Redacción informes / derivaciones	**3,50 ± 1,32**	22,5%	21,4%	**56,0%**
Educación sanitaria personalizada	**3,41 ± 1,27**	24,7%	22,8%	**52,5%**
Escriba clínico (notas, MEAP)	**3,26 ± 1,33**	29,8%	22,8%	**47,5%**
Estratificación pacientes/riesgo	**3,19 ± 1,27**	27,6%	29,8%	**42,6%**
Soporte en codificación	**3,19 ± 1,36**	30,8%	25,7%	**43,4%**
Recordatorios plan de cures	**3,09 ± 1,37**	35,1%	24,4%	**40,5%**
Triaje/cribado asíncrono	**3,01 ± 1,32**	33,2%	29,8%	**37,0%**

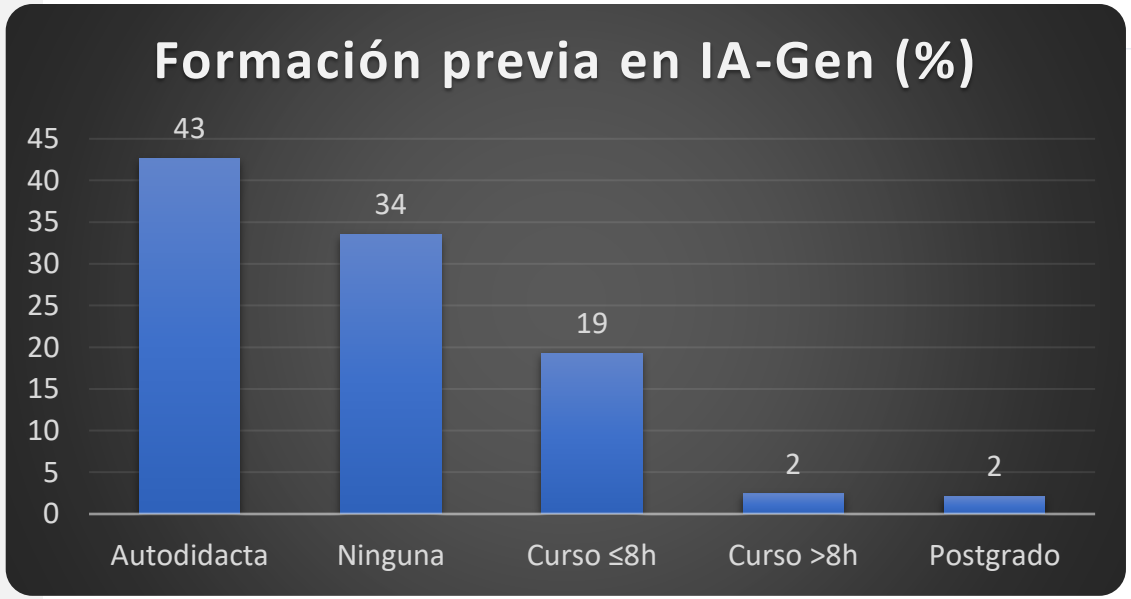
Escala Likert 1-5: 1 = nada útil, 5 = muy útil

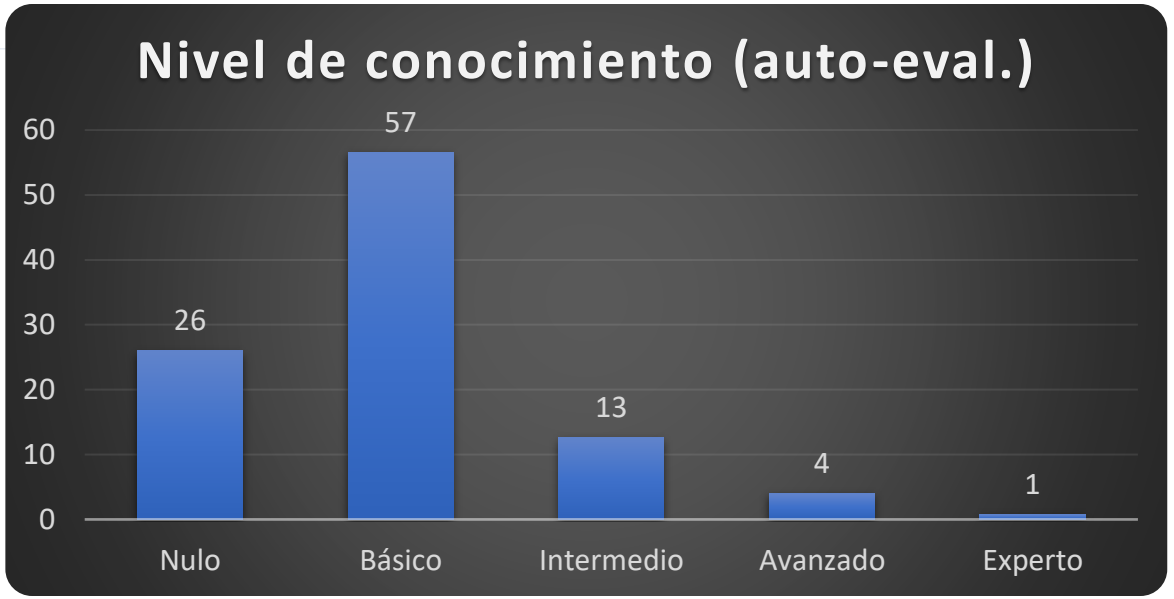
Actitudes y riesgos percibidos

Afirmación	Media	Neg	Neut	Pos
Necesidad política/guía institucional	4,50	1,1%	10,7%	88,2%
IA puede aumentar dependencia/deskilling	3,95	10,2%	15,5%	74,3%
Preocupa privacidad/seguridad datos	3,68	16,6%	24,9%	58,4%
IA puede reducir burnout/carga administrativa	3,54	18,8%	24,9%	56,3%
Beneficios compensan riesgos en AP	3,50	12,3%	37,0%	50,7%
Confío en IA validada por organización	3,39	16,6%	35,7%	47,7%
Uso frecuente reduce creatividad	3,03	35,7%	22,5%	41,8%
IA reduce empatía percibida	2,74	42,4%	29,8%	27,9%
IA incrementa errores (alucinaciones)	2,67	42,1%	38,3%	19,6%
Uso frecuente acelera deterioro cognitivo	2,53	50,0%	29,2%	20,8%

Escala Likert 1-5: 1 = totalmente en desacuerdo, 5 = totalmente de acuerdo

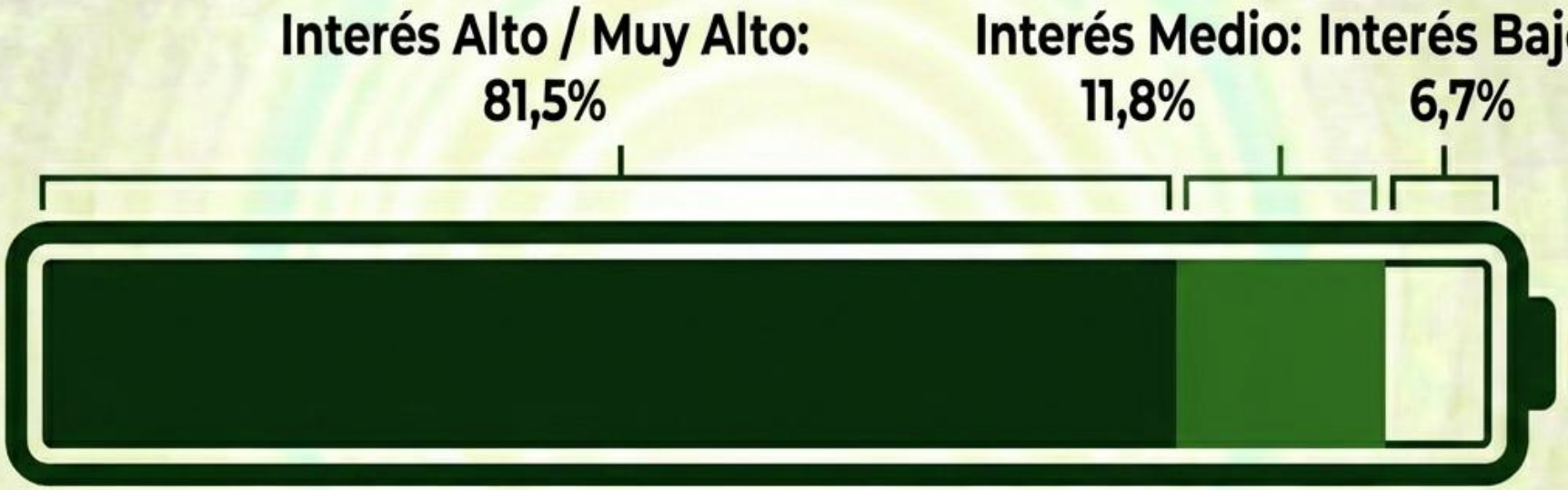
Formación y autoevaluación





Habilidad (Likert 1-5)	Media ± DE	Neg (1-2)	Pos (4-5)
Redactar prompts eficaces	**2,06 ± 1,10**	68,1%	12,3%
Diferenciar RAG/fine-tuning/one-shot	**1,27 ± 0,78**	92,2%	4,0%
Identificar/mitigar alucinaciones	**1,83 ± 1,11**	74,3%	11,8%

Apetito Formativo



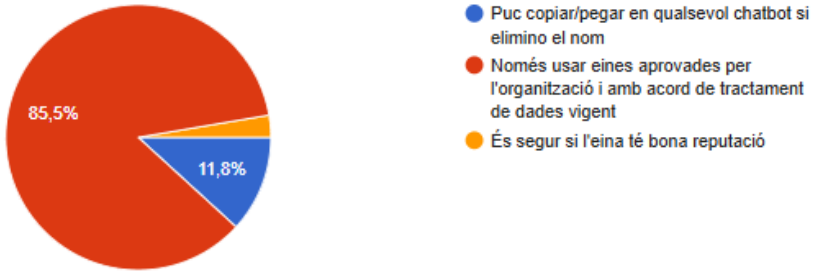
Demanda masiva de aprendizaje aplicado.

Evaluación de conocimientos

46. En relació amb dades de pacients i IA generativa, el més correcte és:

Copiar gráfico

373 respuestas



48. "Al·lucinacions" en LLM es refereixen a:

373 respuestas

47. RAG (Retrieval-Augmented Generation) serveix principalment per a:

373 respuestas

49. Quina afirmació sobre models d'IA generativa és veritable?

373 respuestas

3,38/4

Puntuación media global

56,0%

4/4 aciertos

86,0%

≥3 aciertos (3/4 + 4/4)

Mensajes clave

93,8% usa IA generativa; 57,4% de forma frecuente. ChatGPT domina (80,2%).

La búsqueda de evidencia (68,1%) y la redacción de textos (56,0%) son los usos percibidos como más útiles.

82,6% nivel básico o nulo; 92,2% desconoce conceptos técnicos (RAG/fine-tuning). Pero 86% acierta ≥3/4 preguntas objetivas.

88,2% demanda una política/guía institucional clara. La falta de formación (80,4%) es la barrera principal.

Brecha formativa: 81,5% quiere formación aplicada, pero 79,1% no ha recibido ninguna institucional en 12 meses.

CAMFiC · 2025 | n = 373

THE LANCET
Primary Care

Artificial intelligence in Catalan primary care

Catalonia, an autonomous region of Spain with 8·1 million inhabitants, faces demographic pressures common to many European health systems. Its primary care network comprises 437 primary care centres and 728 local clinics, delivering nearly 62 million consultations in 2024. With 20% of the population older than 65 years and a life expectancy of 84 years, the demand for primary care services continues to intensify. Given this scenario and the rapid advances in artificial intelligence (AI) in medicine, planning for AI integration into the primary health-care system emerges not merely as a future aspiration, but as an urgent necessity.[1]

On March 19, 2023, the Catalan Department of Health published resolution SLT/954/2023, establishing the Programme for the Promotion and Development of Artificial Intelligence in the Health System,[2] which is aligned with the European Commission's White Paper on AI and the regional Catalonia.AI strategy. The programme issues a validation seal to ensure that decision-support tools, automated diagnostics, and epidemiological surveillance systems that use AI are rigorously assessed before affecting patient care. Central to this strategy is the AI Observatory in Health, a digital platform on which entities within the Catalan health system, research centres, universities, and companies register their AI tools.[3] By Dec 29, 2025, nearly 200 tools had been registered, although no publicly accessible data are available regarding their implementation in the public health-care system.

The Catalan AI programme prioritises six targeted calls addressing high-burden problems in primary and hospital care (ie, diabetic retinopathy, dermatology, chest radiography, stroke management, a clinical chatbot, and an administrative voice assistant). At the end of 2025, the only fully implemented project was AXIA,[4] an electronic health record (EHR)-integrated clinical support AI assistant enabling primary care professionals to search, consult, and interact with clinical practice guidelines, protocols, and recommendations focused on primary care. In November, 2025, the Catalan Department of Health's Strategic Directorate for Primary Care established the AXIA editorial committee, responsible for ensuring the quality and validity of the documentary repositories underpinning the tool. The programme also prioritises deployment; on Dec 12, 2025, the Agència *de Qualitat i Avaluació Sanitàries de Catalunya* (Catalan Health System Quality and Evaluation Agency) announced preparations for a diabetic retinopathy screening tool in primary care settings.

Within Spain, Madrid's SermasGPT initiative stands out, as it was the first AI tool integrated into primary care on Sept 15, 2023, providing 6000 primary care physicians with AI-assisted rare disease diagnosis and accumulating 13 600 consultations with high clinician acceptance.[5] Other AI-based initiatives in primary care include a national pilot study conducted in 2025 that deployed AI-based voice transcription tools and the Alcomta generative AI assistant, launched in Pontevedra to support primary care physicians in the diagnosis and treatment of digestive diseases.[6] Looking to the future, Spain's National Health System AI Strategy, approved on Nov 12, 2025, establishes the implementation of conversational transcription by AI across all primary care consultations by 2027. Beyond Spain, the UK National Health Service (NHS) serves as the primary benchmark for assessing Catalan implementation outcomes. The NHS AI Lab has funded various primary care AI solutions through the AI in Health and Care Award programme since 2020. Some examples include Accurx Scribe, which has more than 1500 family medicine practices on the waiting list, and C the Signs, a clinical decision-support AI tool used by general practitioners for early cancer detection that has been implemented in approximately 1400 primary care practices. Other projects include symptom-triage chatbots integrated into NHS 111 and AI systems for prioritising electrocardiogram and retinography analysis in primary care.[7,8]

But what do Catalan family doctors, as the intended users of these tools, actually think? With no official data available, the Catalan Society of Family and Community Medicine (CAMFiC) conducted an email survey during Oct 24 and Nov 18, 2025, which was completed by 373 primary care professionals in Catalonia (table). The most frequently reported uses of AI applications were literature search and synthesis (250 [67%] of 373), text writing or editing (170 [46%] of 373), and clinical-session preparation (139 [37%] of 373). ChatGPT was the most widely used tool (299 [80%] of 373), followed by Copilot (141 [38%] of 373), Gemini (93 [25%] of 373), and Perplexity (69 [18%] of 373). Notably, only 66 (18%) of 373 respondents maintained paid AI subscriptions, and merely 78 (21%) of 373 had received institutional training in the preceding 12 months, despite very high interest in AI-focused training (mean score 4·3 [SD 0·85]). With respect to the use of clinical chatbots, only 135 (36%) of 373 reported the use of AXIA, the EHR-integrated AI chatbot within the Catalan health-care system. The most commonly reported barriers to AI adoption were lack of training (300 [80%] of 373), legal and privacy concerns (206 [55%] of 373), insufficient EHR integration (158 [42%] of 373), and absence of clear institutional policies (154 [41%] of 373).

Responding to Catalan family doctors' primary barrier to adoption, CAMFiC will launch a multilevel training initiative in 2026 comprising three modular courses (ie, basic, intermediate, and advanced), supported by NextGenerationEU funding. CAMFiC will also provide two live workshops, in which primary care professionals will present real-life use cases of generative AI, and the creation of an AI Innovation Lab to support projects that family doctors in Catalonia wish to develop using AI.[9] Separately, we co-directed a pioneering postgraduate programme on AI applications in medicine and health sciences, which began on Feb 19, 2024, at the Faculty of Medicine of the University of Barcelona (Barcelona, Spain) and is currently in its third academic year, with substantial primary care physician enrolment.[10]

Catalonia is among the European regions most committed to advancing AI in primary care. However, a persistent gap separates administrative initiatives from clinical implementation, highlighting the difficulty of converting policy into practice. Regulatory frameworks that establish governance structures and ethical oversight, although necessary, remain insufficient without concurrent investment in three domains: rigorous, independent outcome evaluation; systematic surveillance of safety and effectiveness; and sustained professional development. A further barrier lies in the disconnect between family doctors and most institutional initiatives, compounded by the near-absence of structured training in the responsible use of AI. Survey findings revealed a substantial gap between clinician interest and available education provision, alongside low self-confidence in practical AI skills and acute awareness of legal, organisational, and training barriers. Catalonia should define AI's destination in primary care before circumstances define it. The foundation has been laid, but the crucial work of professional training and evidence-based implementation must now begin.

AS-A is the President of Catalan Society of Family and Community Medicine. The other author declares no competing interests. During the preparation of this work, the authors used Claude Opus 4.5 in order to translate the first draft of the manuscript from Catalan into English. After using this tool, the authors manually reviewed and corrected the content; this process was repeated four times until the final version was obtained. The authors also used ChatGPT 5.2 (in extended thinking mode) in order to automatically generate the results table from the Excel spreadsheet containing the survey data. After using these tools, the authors manually verified all writing, figures, and percentages and take full responsibility for the content of the publication.

*Antoni Sisó-Almirall, Manuel Ramos-Casals
asiso@clinic.cat

Centre d'Atenció Primària Ernest Lluch Les Corts, Consorci d'Atenció Primària de Salut Barcelona Esquerre, Barcelona 08028, Spain (AS-A); Department of Medicine, University of Barcelona, Barcelona, Spain (AS-A, MR-C); Institut d'Investigació Biomèdica August Pi i Sunyer, Barcelona, Spain (AS-A); Catalan Society of Family and Community Medicine, Barcelona, Spain (AS-A); Department of Autoimmune Diseases, Hospital Clínic, Barcelona, Spain (MR-C)

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Published Online
https://doi.org/10.1016/j.lanprc.2026.100119

For the **White Paper on AI** see https://commission.europa.eu/system/files/2020-02/commission-white-paper-artificial-intelligence-feb2020_en.pdf

For the **Catalonia.AI strategy** see https://catalonia.com/w/catalonia-launches-1-billion-euros-ai-strategy-to-drive-innovation-competitiveness-and-responsible-growth-by-2030

For the **NHS AI Lab** see https://digital.nhs.uk/services/ai-knowledge-repository

	Overall (n=373)
Participant characteristics	
Age group, years	
<30	12 (3%)
30-39	49 (13%)
40-49	99 (27%)
50-59	156 (42%)
≥60	57 (15%)
Sex	
Female	258 (69%)
Male	115 (31%)
Professional experience, years	
<5	23 (6%)
5-9	30 (8%)
10-14	32 (9%)
15-19	51 (14%)
20-25	90 (24%)
>25	147 (39%)
Primary practice setting	
Urban	237 (64%)
Semi-urban	72 (19%)
Rural	64 (17%)
Profession	
Family physician	334 (90%)
Nurse	26 (7%)
Other	13 (3%)
Generative AI use	
Overall frequency of generative AI use	
Daily	104 (28%)
Several times per week	110 (30%)
Occasional (ie, less than once per week)	136 (36%)
Never	23 (6%)
Paid subscription to any AI tool	
Yes	66 (18%)
No	307 (82%)
Tasks supported by generative AI in the past month*	
Literature search and synthesis	250 (67%)
Drafting or editing text (ie, reports, referrals, consents, and articles)	170 (46%)
Preparing a clinical session or presentation	139 (37%)
Administrative support (ie, emails and meeting minutes)	84 (23%)
Patient-education materials	81 (22%)
Clinical scribe (ie, notes, summaries, and care plans)	34 (9%)
Generating reminders	25 (7%)
Asynchronous triage or initial screening	24 (6%)
Risk stratification	23 (6%)
Coding or billing	1 (<1%)
Other	56 (15%)
AI tools used in the past 3 months*	
ChatGPT	299 (80%)
Microsoft Copilot	141 (38%)
AXIA (Catalan Department of Health)	135 (36%)
Google Gemini	93 (25%)
Perplexity	69 (19%)
(Table continues in next column)	

	Overall (n=373)
(Continued from previous column)	
DeepSeek	19 (5%)
Grok	7 (2%)
Claude (Anthropic)	6 (2%)
Qwen (Alibaba)	2 (<1%)
Training, skills, and knowledge	
Previous training in generative AI	
None	125 (34%)
Self-taught	159 (43%)
Short course or workshop (ie, ≤8 h)	72 (19%)
Extended course or certification (ie, >8 h)	9 (2%)
Postgraduate qualification (ie, diploma or Masters)	8 (2%)
Institutional training in the past 12 months	
Yes	78 (21%)
No	295 (79%)
Interest in applied training (ranked 1–5)	
Mean (SD)	4·27 (1%)
Barriers to adoption (select up to 3)*	
Lack of training	300 (80%)
Legal or privacy concerns	206 (55%)
Insufficient integration into electronic health record	158 (42%)
Absence of clear policies	154 (41%)
Lack of time	141 (38%)
Variable response quality	139 (37%)
Cost or subscriptions	106 (28%)
Other	12 (3%)

Data are n (%), unless otherwise specified. AI=artificial intelligence. *Multiple responses allowed.

Table: Survey responses

1 Laranjo L, Tudor Car L, Payne RE, et al. Artificial intelligence in primary care: innovation at a crossroads. *Lancet Prim Care* 2025; published online Dec 16. https://doi.org/10.1016/j.lanprc.2025.100078.
2 Diari Oficial de la Generalitat de Catalunya. Resolució SLT/954/2023, de 19 de març, per la qual es crea el Programa per a la promoció i desenvolupament de la intel·ligència artificial al sistema de salut. Mar 23, 2023. https://portaldogc.gencat.cat/utilsEADOP/PDF/8881/1965008.pdf (accessed Dec 17, 2025); in Spanish.
3 Ministry of Health, Generalitat de Catalunya. AI Observatory in Health. https://iasalut.cat/en/observatori-ia-en-salut/ (accessed Dec 22, 2025).
4 Departament de Salut, Generalitat de Catalunya. Axia—electronic health record clinical support assistant. Sept 23, 2025. https://salutweb.gencat.cat/ca/ambits-actuacio/linies/tic/solucions-siscat/catalog/gestio-sanitaria/axia-assistent-suport-clinic-hes/index.html#googtrans(ca|en) (accessed Dec 17, 2025).
5 do Olmo J, Logroño J, Mascías C, Martínez M, Isla J. Assessing DxGPT: diagnosing rare diseases with various large language models. *medRxiv* 2024; published online May 8. https://doi.org/10.1101/2024.05.08.24307062 (preprint).
6 Pérez Cachafeiro S, Proaño Fierro ME, Souto Rodríguez R, et al. AICOMTA: herramienta de IA entre niveles asistenciales. *Endocrinol Diabetes Nutr* 2025; 72 (suppl 2): 484 (in Spanish).
7 Cresswell K, Williams R, Dungey S, et al. A mixed methods formative evaluation of the United Kingdom National Health Service Artificial Intelligence Lab. *NPJ Digit Med* 2025; 8: 448.
8 Rudnicka AR, Shakespeare R, Chambers R, et al. Automated retinal image analysis systems to triage for grading of diabetic retinopathy: a large-scale, open-label, national screening programme in England. *Lancet Digit Health* 2025; 7: 100914.
9 Catalan Society of Family and Community Medicine. Training course on generative artificial intelligence literacy for family and community medicine: basic level. 2026. https://www.camfic.cat/DetallActivitat.aspx?id=9459 (accessed Dec 29, 2025).
10 University of Barcelona. Expert diploma in Advanced Use of Artificial Intelligence in Health Science Teaching. 2025-6, Spain. https://web.ub.edu/en/web/estudis/w/specificmasterdegree-20241143 (accessed Dec 12, 2025).

Aixequeu la mà
qui hagi vist l'al·lucinació !

3 Reglas de Oro para la IA Generativa

Transparencia en el Uso

Declarar siempre si la IA apoyó en la creación de documentos o o recomendaciones.

Prohibido sin Validación Humana

No usar la IA para certificar decisiones criticas sin la validación de un profesional.

Respeto a la Privacidad y Seguridad

Cumplir de forma escrupulosa los estándares de privacidad y seguridad de los datos.

IA Generativa sí, pero con timón clínico.

El juicio experto debe guiar siempre la aplicación de la tecnología.

Jo sóc optimista !

CAMFiC
societat catalana de medicina familiar i comunitària