Rheumatology services in Aotearoa New Zealand—do they meet Arthritis New Zealand/New Zealand Rheumatology Association–endorsed service standards?

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ABSTRACT

AIMS: To describe Health New Zealand – Te Whatu Ora rheumatology services across Aotearoa New Zealand using the Arthritis New Zealand/New Zealand Rheumatology Association–endorsed rheumatology service standards.

METHODS: Descriptive study with data collection by survey from clinical service leads from all 16 Health New Zealand – Te Whatu Ora rheumatology services.

RESULTS: Response rate was 100%. No services met all the service standards. Staffing of rheumatologists approached the standards in only three services, and nursing staffing was well below the standards in all services, with two services not employing any nurses. Where nurses were employed, nursing services standards were largely met. Five services did not provide inpatient consultations. Almost all services had access to conventional imaging modalities, but less than half of services provided point-of-care ultrasounds or had access to fluorodeoxyglucose-positron emission tomography (FDG-PET). Most services were able to make referrals to physiotherapy, occupational therapy and hand therapy. Ability of services to meet care standards for the care of rheumatoid arthritis (RA) was variable. Between 2023 and 2025, two services had a substantive increase in rheumatologist staffing and two had a substantive increase in nursing staffing.

CONCLUSION: This first national-level description of all Health New Zealand – Te Whatu Ora rheumatology services found considerable heterogeneity, and generally services did not meet all services standards.

Inflammatory and autoimmune rheumatic diseases (IARDs) are systemic diseases often manifesting with joint inflammation, systemic inflammation and organ dysfunction that can result in organ failure and long-term disability without optimal management. IARDs can seriously affect the social and economic wellbeing of a person with the disease.[1] Most IARDs have no cure, but best health outcomes are more likely to be achieved with specialist care, led by rheumatologists and supported by nurses and allied health professionals, along with access to advanced imaging and therapeutics.[2,3] Thus, a health system that aims to have excellent outcomes for people with IARDs needs appropriately staffed and organised rheumatology services, supported by appropriately and adequately resourced hospital infrastructure, and processes and access to an appropriate range of conventional and advanced therapeutics and allied health professionals.

In Aotearoa New Zealand the default access to specialist rheumatologist care is in Health New Zealand – Te Whatu Ora public hospitals. Health New Zealand – Te Whatu Ora does not yet have any stated expectations for what service levels and types of services New Zealanders can expect to get in public hospital rheumatology services. Arthritis New Zealand (representing people with IARDs) and the New Zealand Rheumatology Association (NZRA) (representing rheumatologists) have recently endorsed a set of rheumatology service components for public hospital service in Aotearoa New Zealand (Table 1).[4] These were informed by Aotearoa New Zealand rheumatologists' consensus on international standards from the literature[5] and the views of people with IARDs in Aotearoa New Zealand.[4,6] Previous work has consistently shown that there are insufficient physicians employed as rheumatologists in Aotearoa New Zealand hospitals to meet the estimated population needs[7,8] and that rheumatologists employed as a ratio to populations served is the

one key factor associated with variation in the quality measure of care in rheumatoid arthritis.[9] The other service components of rheumatology services, such as nursing staff, imaging access and allied health access, have not been described. Since one goal of Health New Zealand – Te Whatu Ora was to reduce health inequities and ensure equitable access to health services regardless of geographic location in the country[10] it seems critical to describe the specialist services available in public hospitals across the country, with reference to a benchmark of service standards anticipated to be necessary to provide adequate healthcare for a population. We therefore undertook a survey of public hospital rheumatology services in Aotearoa New Zealand using the endorsed rheumatology services standards as a benchmark with the aim of describing the current services by geographic location and population served and how often these services standards were met.

Table 1: Statement set endorsed by the New Zealand Rheumatology Association and Arthritis New Zealand. This list of principles and statements of care is the recommended minimum service expectations for a publicly funded rheumatology secondary care service in Aotearoa New Zealand.

Principles
1. A rheumatology service should value individuals and their experiences through positive interpersonal interactions, supportive relationships and within a health system organised with the patient's needs at the centre.
2. Healthcare professionals in a rheumatology service should actively support patients to participate in decision making and self-management.
3. Healthcare professionals in a rheumatology service should ensure patients' education requirements about their rheumatic condition are met, including appropriate communication, content and framed to support patients' active involvement in shared decision-making.
Statements
Staffing
S1. Patients should have specific rheumatologist(s) responsible for their care and be provided with the names and roles of other medical, nursing, allied health and administrative staff who may be involved in their care.
S2. A public rheumatology service should involve at least one full-time equivalent (FTE) rheumatologist per 80,000–100,000 people within the served population.*
S3. A public rheumatology service should involve at least one full-time equivalent (FTE) rheumatologist nurse per FTE rheumatologist.
Nursing care
N1. Patients with chronic rheumatic disease should have access to a nurse for education.
N2. Patients with chronic rheumatic disease should have access to a nurse-led telephone service for ongoing support.
N3. Specialist rheumatology nurses should participate in comprehensive disease management of chronic rheumatic disease.
N4. Within an outpatient rheumatology clinic, a specialised rheumatology nurse should have their own consultations with chronic rheumatic disease patients, supervised by a rheumatologist as needed.
Care processes, delivery and services
C1. Patients with chronic rheumatic disease should have access to a rheumatology service to support coordinating their care (e.g., with a rheumatology nurse specialist or rheumatologist).
C2. Patients with chronic rheumatic disease and disease flares, or possible treatment-related side effects, should receive advice within 1 working day of contacting a rheumatology service.
C3. Patients under the care of a rheumatology service should be offered telephone or video follow-up consultations, providing it is clinically appropriate to do so.

Table 1 (continued): Statement set endorsed by the New Zealand Rheumatology Association and Arthritis New Zealand. This list of principles and statements of care is the recommended minimum service expectations for a publicly funded rheumatology secondary care service in Aotearoa New Zealand.

C4. Healthcare professionals providing care to patients with chronic rheumatic disease, admitted to a public (district health board [DHB]) hospital, should be able to access inpatient review by a member of the rheumatology service that the patient's care falls under, if requested and clinically appropriate.
C5. Patients with chronic rheumatic disease who suffer from pain issues should have access to a qualified health professional who specialises in chronic pain management (e.g., specialist pain management physician or psychologist).
C6. A rheumatology service should aim to involve other specialists in "combined clinics", where the management of chronic disease spans across different specialties (e.g., combined clinics with dermatology or ophthalmology).
C7. Rheumatology services should actively provide information to patients with rheumatic diseases about outside services or providers that provide social, emotional or practical support.
C8. A rheumatology service should have timely access to musculoskeletal imaging, including ultrasounds and magnetic resonance imaging (MRI), to aid in the diagnosis and management of inflammatory arthritis.
C9. A rheumatology service should include an infusion unit for the delivery of specialist-prescribed intravenous medications (e.g., infliximab, tocilizumab, rituximab), which is supervised (directly, or at a distance) by a member of the rheumatology service.
Allied health services
A1. Patients with chronic rheumatic disease and difficulties with activities of daily living (ADLs), or hand function, should have access to specialist occupational therapy and/or hand therapy.
A2. Patients with chronic rheumatic disease and active foot problems should have access to a podiatry assessment and ongoing review.
A3. Patients with chronic rheumatic disease should have access to specialist physiotherapy, with periodic review.
Rheumatoid arthritis (RA)
RA1. Patients with active RA should be offered the opportunity to commence conventional disease-modifying anti-rheumatic drug (DMARD) therapy (e.g., methotrexate, sulfasalazine, hydroxychloroquine), within 6 weeks of referral to a rheumatology service.
RA2. Patients with active RA should be monitored 3-monthly, using a composite score such as DAS-28 CRP/ESR, until their treatment target is met.

EULAR = European Alliance of Associations for Rheumatology; NICE = National Institute of Health and Care Excellence; RCP = Royal College of Physicians.
*The New Zealand Rheumatology Association notes that "*The staffing ratio of 1:80,000 is aspirational and the NZRA has suggested that a pragmatic target of 1:100,000 is more achievable and adequate for the short to medium term*."[4]

Methods

Overview and sample

This was a descriptive study with data collected through an online survey and, when needed, clarified through an interview. The sample included all Health New Zealand – Te Whatu Ora entities providing rheumatology services, defined as having employment of a senior medical officer (SMO) in a role as a rheumatologist. To be considered a "rheumatologist" in New Zealand generally requires training in rheumatology endorsed by the Royal Australasian College of Physicians (or similar) with the physician providing clinics in rheumatology. Data were collected using an online survey form in Qualtrics. A link to the survey was emailed to all clinical service leads in May 2023, with reminders emailed as needed until the survey closed on 30 June 2023.

Survey instrument

The bespoke survey instrument (Appendix 1) was developed by the research team and collected data on the following: 1) department characteristics including staffing (rheumatologist, nurse and resident medical officer employment in the service and including number, full-time equivalent [FTE] employment, permanent or locum), and 2) how the service met, or did not meet, the 25 service standards endorsed by NZRA and Arthritis New Zealand. Responses were binary (yes/no) for the stem question addressing if a service was available (for example, "Are patients with chronic rheumatic disease and disease flares, or possible treatment-related side effects, able to receive advice within 1 working day of contacting the rheumatology service"). When the response to a stem question was no, a supplemental question with multiple options about the service provision standard was often provided (for example, "How long are patients likely to wait for contact from the rheumatology service if they have concerns about flares or treatment side-effects?" [select one of 2–3 days, 3–4 days, 5 days or more than 5 days]). Each service standard question also invited a free-text response to provide additional context if the respondent wished.

The survey instrument was developed in a Word document and then built in Qualtrics. The survey was piloted in Qualtrics by two of the authors (ND, RG) who are SMO rheumatologists in Health New Zealand – Te Whatu Ora rheumatology services, and improvements were made iteratively to improve the flow and accuracy of data collection.

Data analysis

Data from Qualtrics were exported into an Excel spreadsheet and analysed using descriptive statistics. Populations of each Health New Zealand – Te Whatu Ora entity population serviced were sourced from Stats NZ.[11] These data were used to calculate FTE rheumatology or rheumatology nurses per 100,000 population for each rheumatology service. Figures were produced using Microsoft Excel or Datawrapper.

Clinical service leads were invited to indicate if they wished to be interviewed to provide additional or clarifying information about their service. Interviews were undertaken on Zoom between 1 August 2023 and 30 August 2023. After interviews, survey data were checked and modified to ensure responses were consistent with each corresponding interview. A summary of service data with comparison to the national dataset were provided in individual reports to each service in January 2024 for checking, and after minor edits a final report was provided to services in March 2024. This manuscript was shared with clinical service leads in June 2025, with a request to provide information on any substantive changes in service since data collections.

Ethical and other approvals

The study protocol was approved by the University of Otago Human Ethics Committee (D23/018). Permission to undertake the survey of Health New Zealand – Te Whatu Ora clinical service leaders of rheumatology services was obtained in writing from the interim national director – medical, interim national people and culture lead and the interim director of hospital specialist services in November 2022 with need for locality approval waived. Consent was obtained electronically before participation in the survey.

Results

Survey responses were provided by all 16 Health New Zealand – Te Whatu Ora rheumatology services, a response rate of 100%. Interviews were undertaken with six of the 16 services for the purposes of clarifying survey data. None of the 16 services met all the 21 service standard statements. First, we report staffing standards both in absolute numbers (Table 2) and by population served (Figure 1, Figure 2 and Figure 3). We then we describe the self-reported service achievement of service standards for nursing care, care processes, allied health and rheumatoid arthritis (RA) care, with these data graphically represented in Figure 3.

Staffing

There are three service standard statements about staffing (Table 1). In 2023 there were 34.35 FTE rheumatologists in Health New Zealand – Te Whatu Ora services; with the current New Zealand population, meeting the 1.0 FTE rheumatologist per 100,000 population service statement would require 51.24 FTEs. Services employed from 0.40 to 4.60 FTE rheumatologists. The range of rheumatologist FTEs per 100,000 population as a proportion of target (i.e., proportion of FTEs employed to 1.0 FTE per 100,000 population of that service) was less than 0.4 in four services (Nelson, Wellington, MidCentral–Whanganui and Bay of Plenty) and more than 0.9 in three services (Southern, Hawke's Bay and Auckland) (Table 2, Figure 1 and

Figure 2). In total there were 22.50 rheumatology nurse FTEs in Health New Zealand – Te Whatu Ora services, with two services not employing any rheumatology nurses and the range being 0.40 to 3.40 FTEs (Table 2). This gives a range of proportion of rheumatology nursing FTEs per 100,000 population of less than 0.4 in four services (Canterbury–West Coast, MidCentral–Whanganui, Waitematā and Auckland), with four services just over 0.6 (Southern, South Canterbury, Wellington and Waikato) (Figure 1 and Figure 2). FTE vacancies in permanent positions were reported by five services for a total of 1.90 FTE rheumatologists (from five services, range 0.20 to 1.30 FTE) and 1.40 nurse FTEs in two services (0.4 and 1.0 FTE). Thirteen of 16 services confirmed that patients always have a named rheumatologist responsible for their care, with the remaining three reporting that patients "mostly" had a named rheumatologist.

Table 2: Rheumatologist and rheumatology nurse full-time equivalents (FTEs) employed in the 16 services in 2023.

			Rheumatologist		Nursing	
Service	**Population**	**Ratio of 1.0 FTE/100,000 population**	**Actual FTEs employed**	**Proportion of FTEs employed to target of 1.0 FTE/100 000**	**Actual FTEs employed**	**Proportion of FTEs employed to target of 1.0 FTE/100,000**
Northland	201,500	2.02	0.80	0.40	0.00	0.00
Auckland	481,600	4.82	4.60	0.96	1.70	0.35
Waitematā	633,500	6.34	3.80	0.60	1.70	0.27
Counties Manukau	605,100	6.05	4.60	0.76	2.40	0.40
Waikato	452,900	4.52	4.00	0.89	3.00	0.66
Bay of Plenty	274,700	2.75	1.00	0.36	1.60	0.58
Lakes	118,200	1.18	0.80	0.68	0.80	0.68
Tairāwhiti	52,100	0.52	0.40	0.77	0.00	0.00
Taranaki	127,500	1.28	0.60	0.47	0.60	0.47
Hawke's Bay	182.600	1.83	1.80	0.99	0.90	0.49
MidCentral–Whanganui	259,800	2.60	1.00	0.38	0.90	0.35
Wellington	533,500	5.34	1.95	0.37	3.40	0.64
Nelson–Marlborough	165,000	1.65	0.60	0.36	0.90	0.55
Canterbury–West Coast	624,200	6.24	3.90	0.62	2.00	0.32
South Canterbury	62,300	0.62	0.40	0.64	0.40	0.64
Southern	350,500	3.51	3.30	0.94	2.20	0.63
TOTAL	5,124,100	51.24	34.35	-	28.74	-

Figure 1: Rheumatologist full-time equivalent (FTE) employed in each Health New Zealand – Te Whatu Ora rheumatology service as a proportion of total population in catchment of that service 2023.

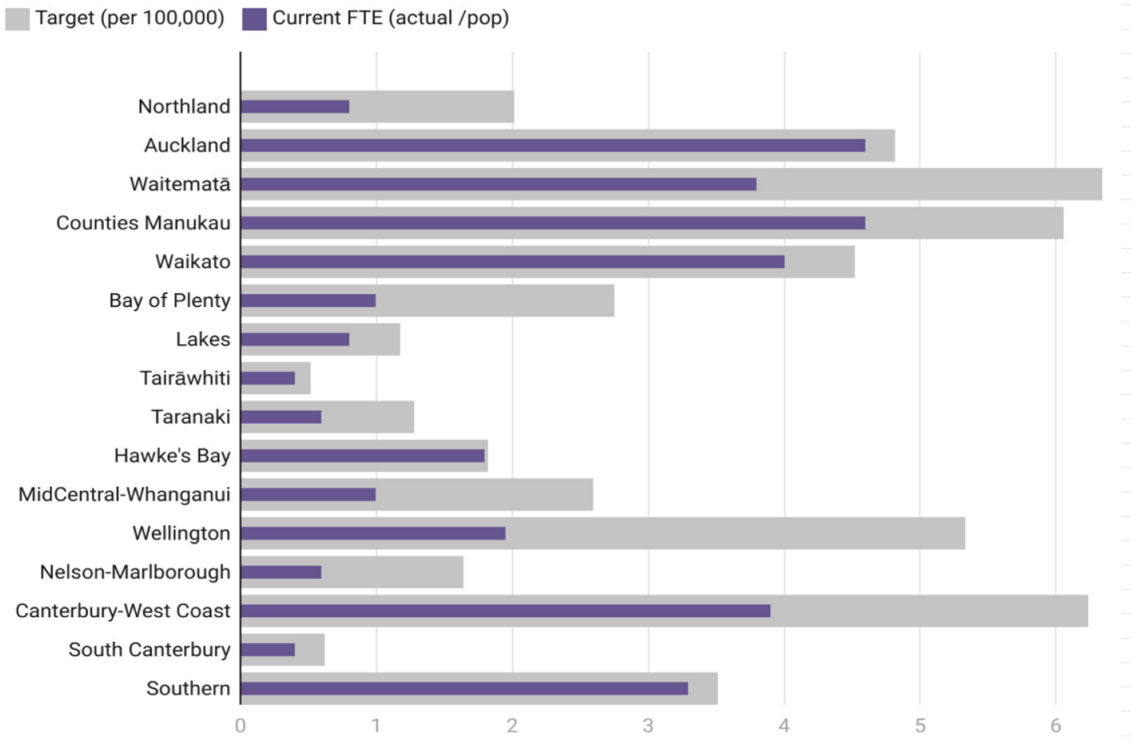

Figure 2: Nurse full-time equivalent (FTE) employed in each Health New Zealand – Te Whatu Ora rheumatology service as a proportion of total population in catchment of that service 2023.

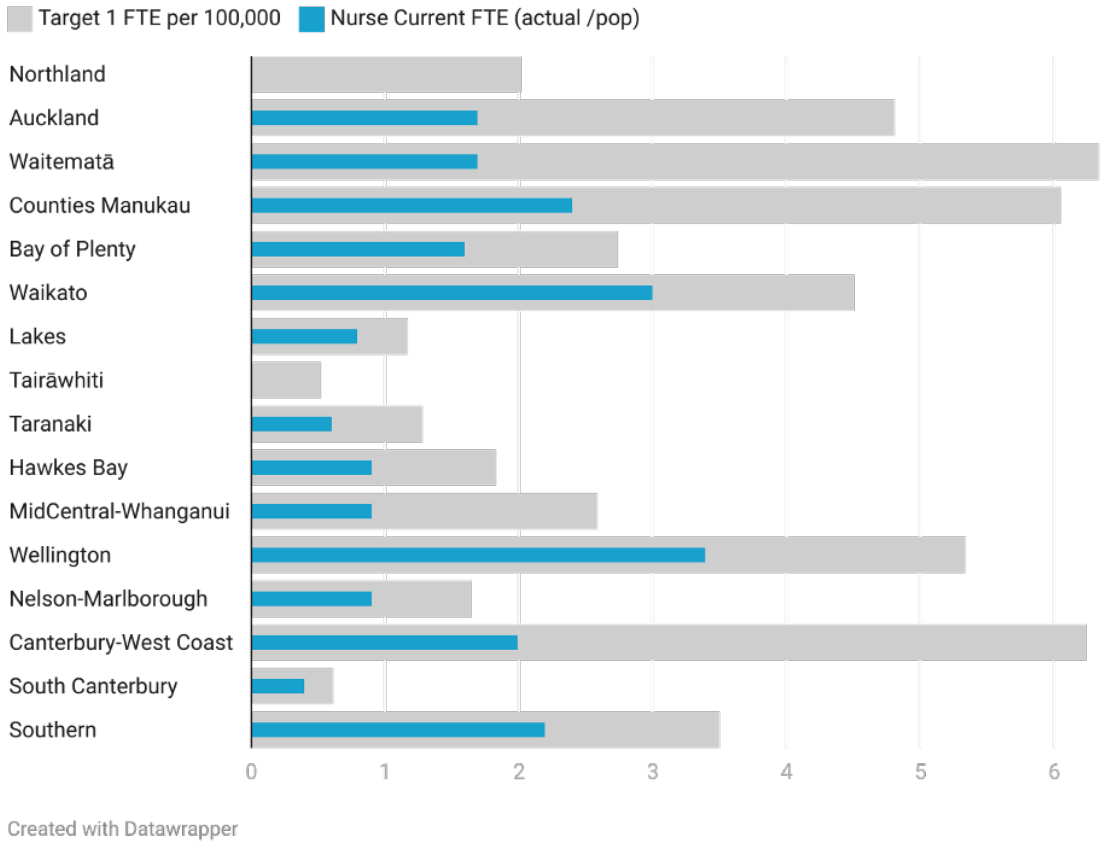

Figure 3: Self-reported adherence with service standards for nursing care, care processes, allied health and rheumatoid arthritis (RA) care for 16 rheumatology service in Aotearoa New Zealand.

Region	N1 Education	N2 Nurse phone line	N3 comprehensive mgmt	N4 Nurse consults	C1 Co-ordination	C2 Remote care	C3 Inpatient review	C5 Pain services	C6 Combined clinic	C7 Other services information	C8 Imaging access	A1 Occupational therapist	A1 Hand therapy	A2 Podiatry	A3 Physiotherapy	RA1 DMARD 6 weeks	RA2 Monitor 3mo
Northland	0	0	0	0	0	0	3	0	0	3	3	3	3	0	3	3	3
Auckland	3	3	2	2	3	3	3	3	3	3	3	0	3	0	3	3	2
Waitematā	3	0	2	2	1	3	3	3	3	0	3	3	0	0	3	2	2
Counties Manukau	3	3	2	3	3	0	3	3	3	3	3	3	3	3	3	2	2
Waikato	3	3	3	1	3	3	0	3	3	3	3	3	3	3	3	2	0
Lakes	3	3	2	1	1	0	0	3	0	0	0	3	3	0	3	2	2
Bay of Plenty	3	3	3	3	3	0	3	3	0	0	3	3	0	3	3	0	2
Tairāwhiti	0	0	0	0	0	3	0	0	0	0	3	3	3	0	3	2	0
Taranaki	3	3	3	1	0	3	3	3	0	0	3	3	3	0	3	0	3
MidCentral-Whanganui	3	3	3	2	3	0	3	0	0	3	3	0	0	0	0	0	0
Hawkes Bay	3	3	2	1	3	0	3	0	0	0	3	3	0	0	3	2	2
Wellington	3	3	3	1	1	3	0	3	3	3	3	3	3	0	3	2	0
Nelson-Marlborough	3	3	2	2	3	3	0	3	0	0	3	3	3	0	3	2	0
Canterbury-West Coast	3	3	2	1	1	3	3	3	0	3	3	3	3	0	3	2	2
South Canterbury	3	3	1	0	0	3	3	3	0	3	3	3	3	0	3	3	3
Southern	3	3	1	2	0	3	3	3	0	0	3	3	3	0	3	2	0

Created with Datawrapper

Legend 3 “always meets”, 2 “mostly meets”, 1 “sometimes meets”, 0 “does not meet”.

Nursing care

There are four service standard statements about nursing care (Table 1). Almost all services reported having nurse-led patient education (14/16) and nurse-led phone lines for patient enquiries/advice (14/16). Phone-line response time was reported to be within the recommended 1 working day in 11 of the 14 services providing a phone line (care standard #C2). Two services reported phone line responses in 2 to 3 days and one service reported phone line responses in 3 to 4 days. Services reported variable delivery of nurse involvement in comprehensive care (six services always, seven mostly, three sometimes) and independent nurse consultations (two services always, five mostly, seven sometimes and two not at all).

Care processes, delivery and services

Eight of the nine service standard statements about care processes, delivery and services were included in the survey (Table 1). Services reported that patient care was supported and coordinated routinely by 10 services, sometimes by four services and that care coordination was not provided in two services. Remote follow-up consultations, when appropriate, were reported to be routinely provided by telephone by 10 services and by video by three services. Eleven of 16 services reported providing timely in-person consultations for patients with rheumatic diseases who had been admitted to hospital. Twelve services reported that patients with chronic rheumatic diseases with issues with pain could be referred to a health professional specialised in pain management. Five services reported that patients with rheumatic disease could be seen in combined clinics with other disciplines with the named disciplines being dermatology (two services), renal (one service), hematology (one service) and "various" (one service). Only eight out of 16 services reported consistently providing their patients with information about outside services or providers that offer social, emotional or practical support.

Almost all services (15/16) had access to the imaging modalities: plain radiography, ultrasound (radiology department), computed tomography, bone mineral densitometry and magnetic resonance imaging. One service that did not have direct referral access to radiology services was a private specialist rheumatology service with a contract to provide services to the local Heath New Zealand – Te Whatu Ora hospital catchment. About half of services reported providing rheumatologist-performed point-of-care ultrasounds (8/16) and access to positron emission tomography–computed tomography (7/16).

Allied health services

There are three service statements about allied health services. Most services reported that patients had access to physiotherapy (15/16), occupational therapy (14/16), hand therapy (12/16) and orthotics (11/16). Access to health psychologists was reported by only five of these 16 services and to podiatry services by only three of 16 of these services.

Care for people with rheumatoid arthritis (RA)

Only two services reported always meeting both care standards for RA, with two other services reported always meeting one care standard for RA. For the care standard of people with RA being offered the opportunity to start a disease modifying anti-rheumatic drug within 6 weeks of referral to a rheumatology service a further 10 services reported "mostly" meeting this standard, with three never meeting this standard. For the care standard of patients with active RA being monitored every 3 months by the rheumatology service a further seven services reported "mostly" meeting this standard and six reported never meeting this standard.

Changes between 2023 and 2025

Reported changes in staffing included increases in employed rheumatologist FTEs at Wellington (increase of 1.4 FTE) and MidCentral–Whanganui (increase of 0.5 FTE) and in nursing FTEs at Counties Manukau (increase of 0.7 FTE) and Northland (1.0 FTE, previously nil). Details of smaller FTE changes and other service standard changes provided by clinical leads are reported in Appendix 2.

Discussion

This study is the first to report national-level data on staffing, services and care provision in publicly funded rheumatology services in Aotearoa New Zealand, and it had data provided from all services. None of the 16 Health New Zealand – Te Whatu Ora rheumatology services met all the 21 endorsed service standards: staffing levels were universally below recommendations, particularly for nursing staff; ability to refer to allied health was available for many but not all disciplines; access to established imaging

modalities was generally good but variable for newer modalities; and ability to provide best practice care for RA was variable. These data suggest people in Aotearoa New Zealand using rheumatology services will not have equitable opportunities to achieve best possible health outcomes as essential elements of care provision are absent in some locations. Our data suggest that regional variations in services provided are potentially large, which is a recurrent finding across the Aotearoa New Zealand health system.[12–14]

In terms of staffing, only three services approached the conservative recommendations for rheumatologist staffing and none exceeded the one rheumatologist FTE per 100,000 population recommendation. Two rheumatology services did not have any nurses employed, and all services had lower nursing staffing than rheumatologist staffing and well below the one nurse FTE per 100,000 population. These nurse staffing levels meant nursing-provided and -led services for people with rheumatic diseases varied across the motu. National-level service standards have been developed for rheumatology services in the United Kingdom by the British Society for Rheumatology.[3] These standards recommend that services should employ one rheumatologist for every 60,000–80,000 in the population catchment. During development of service standards for Aotearoa New Zealand, rheumatologist staffing of one per 80,000 population was proposed; however, one per 100,000 was endorsed as this was viewed as potentially achievable while one per 80,000 was not.[4] The British Society for Rheumatology also recommends that nurse staffing is equivalent to rheumatologist staffing to provide the full benefits of nurses working at the top of scope in rheumatology. Our data suggest New Zealanders are missing out on the benefits of rheumatology nursing care, which is particularly disappointing as people using rheumatology services value nursing care particularly highly.[4,6] There is sufficient evidence supporting that nurse care in rheumatology can, at least for RA, achieve similar health outcomes to doctor-led care,[15,16] perhaps better outcomes than general practice care for people with gout,[17] and that nursing care increases patient self-management, self-efficacy and satisfaction with care provision.[18,19] Investment in nurse staffing in Health New Zealand – Te Whatu Ora rheumatology services seems an urgent need, and this seems likely to provide returns in terms of patient health outcomes and experience of care. Any such investment should come with developing a systematic approach to training of nurses in rheumatology scope of practice, which is inconsistent internationally.[19]

Our study reports health professional staff FTE data but does not address what activities staff undertake in this employment. We did find that five services did not provide inpatient consultation services. Previous work has suggested that hospital doctors in internal medicine services report potential negative impacts on patient care quality and doctor education when such consultation services are absent.[20] For this reason it seems important that appropriate workload models are developed and agreed upon at a national level for rheumatologists or other medical specialists employed in Health New Zealand – Te Whatu Ora; work that, as far as we are aware, has not happened. We did not collect data on workload models in our survey. Any future such work will need to: consider appropriate variation in practice expectations (such as need for time to undertake point-of-care ultrasounds), provide supervision and education to medical students and rheumatology trainees, provide consultations for tertiary or quaternary care inpatients and have the potential for justified variation for location or physician-specific matters.

In terms of access to diagnostic imaging, almost all services reported access to formal imaging services (reported by a radiologist) but only half of services had at least some rheumatologists undertaking point-of-care ultrasounds. Less than half of services had access to positron emission tomography–computed tomography. Interestingly, the one rheumatology service with a model of public services provided by a private provider reported challenges for their patients in accessing appropriate imaging. Any future arrangement for private contracting of ambulatory care services should ensure that arrangements for all necessary and expected supporting services are addressed during contracting. Internationally, point-of-care ultrasounds are widely, although variably, adopted to enhance assessment in rheumatology with professional bodies producing guidelines on indications[21] and techniques of ultrasounds performed by rheumatologists.[22] The frequently identified barriers to wider adoption are access to sufficient expert trainers and time for training rheumatologists and trainees.[23] A future focus on training in point-of-care rheumatology ultrasounds (so called "POCRUS") would benefit patients by providing diagnostic imaging embedded with clinical reasoning during assessment,

during a single consultation, reducing delays and referrals to stretch radiology services and enhancing rheumatologist satisfaction with practice. Expert-performed ultrasounds also have an established role in assessment of one of the most common rheumatic emergencies, giant cell arteritis,[24] and can mean temporal artery biopsy is avoided. Since giant cell arteritis is a serious, potentially sight-threatening disease with considerable potential for direct and treatment-related morbidity, equitable access to specific expertise in ultrasounds for this diagnostic process should be a high priority and provided equitably in all parts of Aotearoa New Zealand. Our survey did not specifically address this aspect of ultrasound use but our data suggest that access will be highly variable based on geography. While almost all services reported "access" to diagnostic radiology services, we did not collect data on wait times or distance to services for patients in different areas of the motu, and this should be a focus of future research.

In terms of access to allied health, most services reported an ability to refer to physiotherapy, occupational therapy, hand therapy and orthotics services, but there was universally poor reported availability of health psychology and podiatry services. In contrast, similar national surveys in Australia have reported inadequate staffing of allied health professionals within rheumatology services.[25] However, we did not report on staffing levels so these may in fact be inadequate. Health psychology services are not part of the endorsed rheumatology service elements but we included these in the survey as, previously, people using public hospital rheumatology services have reported these to be highly desirable and not easily accessed;[6] this is consistent with our finding that only three of 16 services had any access to referral to health psychology services. People with IARDs are known to have high levels of psychological distress, and service development work in the United Kingdom concluded that psychological services would be best built into rheumatology services.[26] Podiatry services for people with arthritis in the United Kingdom have been found to be highly variable with complicated and uncertain referral pathways.[27] Any future development of podiatry services could benefit from clear articulation of potential benefits and clear referral pathways. It is important to highlight that ability to refer does not capture any information about acceptance of referral or the acceptability of wait time and location of service to users.

Only two services reported consistently meeting services standards for provision of care for the management of RA; however, 10 of 16 services reported mostly providing the opportunity for starting a disease-modifying anti-rheumatic drug (DMARD) within 6 weeks of referral to people with RA. The latter is consistent with the data from the first year of the NZRA-endorsed national seropositive RA audit, in which 64.8% of the 355 people with RA seen by a participating rheumatology public or private service commenced a DMARD treatment within 6 weeks of referral.[9] The only two factors associated with "time to DMARD" were FTEs of rheumatology services and rurality; patients living 60–90 minutes' drive from services waited longer to DMARD treatment commencement. This observation reinforces the need to address the underemployment of specialist rheumatologists in hospitals in Health New Zealand – Te Whatu Ora. In the NZRA audit almost all (94.4%) people with seropositive RA seeing a rheumatology doctor were started on a DMARD at that visit, suggesting that care is appropriate when patients are seen.[9] Since RA is a chronic condition where disease activity can fluctuate over time, follow-up is essential to ensure adequate and ongoing suppression of inflammation, which is required for optimal long-term outcomes. Nine services reported always or mostly meeting standard of provision of monitoring of people with active RA every 3 months, while six services never met this standard. These data must, however, be viewed with caution as these are self-reported adherence to service standards and not underpinned (necessarily) by robust data analysis. Together our data suggest that rheumatology services may prioritise seeing new patients and be inadequately resourced for managing a constantly accumulating patient cohort. Since RA is a long-term condition without cure and requiring specialist care for medication prescribing, a gradual, planned increase in staffing will inevitably be required to maintain care standards. There may be considerable opportunity for providing ongoing safe clinical management for people with RA, at least over the short term, by remote monitoring, for example via reporting of patient-reported outcomes to a service using an app where clinical review is prioritised when patients have active disease.[28,29] In a Dutch randomised controlled trial this approach reduced in-person clinic visits by 38% with similar RA clinical outcomes at 1 year.[28] While such an

approach is attractive, this would require significant investment in information technology and appropriate resources of change management and of change in clinical workflows. Our previous work has suggested that New Zealanders would find allocation of clinical service according to need and patient-self reported measures acceptable.[30]

Between 2023 and 2025 there was increased staffing in four services. Rheumatologist FTEs increased in two of the four services with the lowest rheumatologist:population ratios (Wellington and MidCentral–Whanganui). One service with no nurses now has a full-time rheumatology nurse. While these changes are positive, the staffing levels were previously highly inadequate for the population size. Increases in both rheumatologist and nurse staffing are still needed in all services to meet endorsed services standards.

This study has several strengths. Our survey for all 16 Health New Zealand – Te Whatu Ora rheumatology services in Aotearoa New Zealand had a 100% response rate. Where data provided were unclear or incomplete, we were able to verify the data via interview. Another strength of our study is that services reported against locally developed standards that have been endorsed by the relevant medical professional society and the non-governmental organisation that represents people with rheumatic diseases. Since Health New Zealand – Te Whatu Ora does not have any internal recommendations for rheumatology service provision and functions, we had to develop a set of rheumatology service standards, which are based on international standards with refinement from rheumatologists and with people with rheumatic diseases in Aotearoa New Zealand who have used rheumatology services.[4–6]

Our study must also be interpreted in light of potential limitations. The data were self-reported by the clinical service lead so are subject to recall bias and imprecision as respondents were able to interpret for themselves if their service "met" the criteria. This means the data likely suffer from under- and over-reporting. The information collected was also limited in that it reports service elements only and does not report on service efficiency (amount of service provided for level of staffing), effectiveness of service (patient outcomes) or on patient experience of services. "Access" to services (for example, imaging or allied health) only accounts for the ability for the rheumatology practitioner to refer to the service and does not describe wait times for the people using the service, nor other barriers to access such as travel time and costs. In areas with populations dispersed over large geographic areas, in practical terms these services are really only "accessible" (that is, useable with reasonable time, financial and other costs) for people living close to where the services are located. Future studies will need to describe the views of people referred to these services with respect to the location, costs and overall net benefit of the services. This will be particularly relevant in provincial and regional services. We also consider that future studies should consider patients' views on the experience of the care, which we did not address. Another major limitation of our study is that the data are potentially out of date as soon as reported. We addressed this by data checking in June 2025 and report staffing FTEs and some small changes in services standards. Our survey did not include an item on infusions services (service standard C9), which was an oversight during survey development. A final limitation is that some potential service statements considered were not endorsed during development[5] even though these were important to people with rheumatic disease,[4] with an example being provision of telemedicine services and access to rheumatology services for people with non-inflammatory conditions. Therefore, any service recommendations taken from our data should also consider if rheumatology services need resourcing above that described in the service standards to meet community expectations for care or if other services should be developed to address these care needs.

In conclusion, this is the first national-level description of rheumatology services in public hospitals across New Zealand. The dataset was complete, with participation by all services, and found considerable heterogeneity across the country and that generally services did not meet all services standards.

COMPETING INTERESTS
RG, VM and ND designed the overall study. RG and VM acquired the data. RG, VM and ND all contributed to data analysis. RG wrote the first draft of the manuscript and RG, VM and ND critically revised it for intellectual content, with all providing critical revision for intellectual content. RG, VM and ND all approved the final manuscript for publication and all agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Appendices

Appendix 1: Survey sent to the clinical lead of Health New Zealand – Te Whatu Ora rheumatology services.

Rheumatology services in Aotearoa New Zealand: what are they and is there variation?

Questionnaire for the leader of clinical services in a public rheumatology service in Aotearoa New Zealand

Rheumatologist-led care is required to achieve best outcomes for people with Inflammatory Rheumatic Diseases (IRDs).[1–5] The components of Aotearoa New Zealand pubic hospital rheumatology services have been previously identified by a Delphi process with health professionals (Gibbs & Grainger, 2022) and a qualitative study with patients (Ngan Kee, Grainger et al. 2022) to define best-practice rheumatology service provision. This survey is a continuation of this work. Studies have shown Aotearoa New Zealand does not have recommended numbers of rheumatologists for our population. No previous studies have described other aspects of rheumatology services in public hospitals in Aotearoa New Zealand. The aim of this survey is to gather information to describe rheumatology services in public hospitals (secondary care) in Aotearoa New Zealand. We thank you for your interest in our study. This survey should take 60 minutes to complete.

Screening questions

Please read the Participant Information Sheet (PIS) on the next page, or click here: (Link to PIS)

Consent

I have read the Participant Information Sheet, and I understand the nature of the research. I understand that the survey results will be reported by institution/hospital and my personal identity will not be reported, and I will remain anonymous. We plan to provide a summary of the findings for your institution/hospital and a national level. Please provide your email if you wish to receive a summary of the findings. You can complete the survey in more than one session by saving and exiting. Save and Exit on each screen.

I agree to take part:	YES / NO (Select one. If yes, go to SQ1. If no, exit survey.)

Download document

If you would prefer to complete a printable Word version of the survey, please download here (Word icon and link) and email to XXX when done.

This survey is by invitation to the clinical lead rheumatologist in a Health New Zealand – Te Whatu Ora rheumatology service, or a person delegated by the clinical lead. To continue with the survey, please complete the following two screening questions:

Screening Q1. Do you work in a Health New Zealand – Te Whatu Ora rheumatology service? **If no, then close survey with exit message** **If yes, go to SQ2**	Yes / No
Screening Q2. Please indicate which group you belong to:	Checkbox: select one
Clinical lead rheumatologist	
Clinical nurse specialist	
Other delegated staff member **(please specify)** **Go to SQ3**	Free text

Background information

SQ3	**For which Health New Zealand – Te Whatu Ora rheumatology service are you answering this survey?** **Go to D1**	Free text

Department characteristics

D1.0	**How many rheumatologists work in your service?** **Go to D1.1**	Free text
D1.1	**How many rheumatologists working in your service are permanently employed** **Go to D1.2**	Free text
D1.2	**How many rheumatologists working in your service are locums** **Go to D1.3**	Free text
D1.3	**Are all rheumatologists working in your service located in your institution?** **If yes, go to D2** **If no, go to D1.4**	Checkbox: select one
D1.4	**How many rheumatologists working in your service are based elsewhere?**	Free text
D1.5	**How frequently do rheumatologists based elsewhere work in your service (e.g. 1 day per month)**	Free text
D2.0	**(Hidden S16) In total, how many full-time equivalent (FTE) rheumatologists (including permanent and locum) work in your rheumatology service?** **What is the total of onsite FTE rheumatologists**	Free text Free text
D3.0	**(Hidden S23) Does your rheumatology service have clinical nurse specialists (CNS) in rheumatology?** **If yes, go to D3.1** **If no, go to D4**	Yes / No
D3.1 **D4.0**	**How many rheumatology CNS nursing staff do you have?** **What is the total FTE of these rheumatology CNS?** **permanent /locum**	Specify: free text Specify: free text
D5.0	**Does your rheumatology service have other specialist nursing staff?** **If yes, go to D5.1** **If no, go to D6.0**	Yes / No
D5.1 **D6.0**	**If yes, how many other specialist nursing staff do you have?** **What is the total FTE of these other specialist nursing staff?**	Specify: free text Specify: free text
D7.0	**Does your rheumatology service have non-specialist nursing staff?** **If yes, go to D7.1** **If no, go to D8**	Yes / No
D7.1 **D8.0**	**How many non-specialist nursing staff do you have?** **What is the total FTE of these non-specialist nursing staff?**	Specify: free text Specify: free text

Department characteristics continued.

D9.0	**Do you have any CNS staff positions that are funded, but vacant?**	Specify: free text
D10.0	**Does your rheumatology service have RMO staff?** **If yes, go to D10.1** **If no, go to D11.2**	Yes / No
D10.1	**How many RMO do you have?**	Specify: free text
D10.2	**What is the total FTE of RMO staff?** **Go to D11.0**	Specify: free text
D11.1	**Does your rheumatology service have rheumatology advanced trainee/s** **If yes, go to D11a** **If no, go to D12**	Yes / No
D11.2	**How many rheumatology advanced trainees do you have?**	Specify: free text
D11.3	**What is the total FTE of rheumatology advanced trainees?** **Go to D12**	Specify: free text
D12.0	**Do you have any other comments staff numbers?** **Go to D13**	Comment: free text
D13.0	**Are there processes for connecting Māori rheumatology patients with Māori health services/navigators within your rheumatology service/ hospital** **Yes/No** **How do these processes improve access for Māori with chronic rheumatic diseases?**	Checkbox: select one Free text
D14.0	**How are referrals to rheumatology received: (Select all that apply)** **On paper letters (*Does anyone still do this?*)** **Via email letters** **Referral software** **Other, please specify**	Checkbox: multiple Free text
D15.0	**How do you advise patients to contact rheumatology services if they need advice or help outside of regular appointments?** **(Select all that apply)** **Email** **Landline phone** **Mobile phone** **Text** **Not at all (we expect then to see their GP).** **Comment**	Checkbox: multiple Free text

Service standards

The following questions relate to the statements of best-practice patient care that have been defined by health professionals and rheumatology patients.

Q1.0	**(Hidden S1) Are patients with active rheumatoid arthritis (RA) offered the opportunity to commence conventional disease-modifying anti-rheumatic drug (DMARD) therapy (e.g., methotrexate, sulfasalazine, hydroxychloroquine), within 6 weeks of referral to a rheumatology service.** **Yes / No**	Checkbox: select one
Q1.1	**Go to Q1.1** **Do you regularly audit time-to-treatment timeframes?** **Go to Q1.2**	Checkbox: select one
Q1.2	**What is your impression of the appropriateness of the timeframes to initiation of DMARD therapy?** **Go to Q2.0**	Free text
Q2.0	**(Hidden S2) Are patients with active RA monitored 3-monthly, by the rheumatology service?** **Yes / No**	Checkbox: select one
Q2.1	**If yes, go to Q2.2** **If no, go to Q2.1** **Do you rely on GPs to monitoring and report on active RA?** **Yes / No**	
Q2.2	**Go to Q2.2** **Are patients with active RA monitored using a composite score such as DAS-28 CRP/ESR, until their treatment target is met?** **Go to Q2.3**	Checkbox: select one
Q2.3	**What is your impression about how well 3-monthly monitoring is achieved for RA patients?**	Free text
Q3.0	**(Hidden S3) Do patients with chronic rheumatic disease, living in region, have access to a rheumatology service that can support coordinating their care (e.g., with a rheumatology nurse specialist or rheumatologist).** **Yes / No** **Go to Q4.0**	Checkbox: select one

Service standards continued.

Q4.0 4.1 4.2 4.3	**(Hidden S4) Are patients with chronic rheumatic disease and disease flares, or possible treatment-related side effects, able to receive advice within 1 working day of contacting the rheumatology service** **If yes, go to Q4.1** **If no, go to Q4.2** **Is this contact within 1 working day by? (please select all that apply)** **Landline phone** **Email** **Mobile phone** **Videocall or other digital technology** **Go to Q4.3** **How long are patients likely to wait for contact from the rheumatology service if they have concerns about flares or treatment side-effects? (select one)** **2–3 days** **3–4 days** **5 days** **More than 5 days** **Go to Q4.3** **What barriers do you have in meeting recommended contact timeframes?** **Go to Q5.0**	Checkbox: select one Checkbox: select multiple Checkbox: select one Free text
Q5.0 5.1 5.2	**(Hidden S5) Do patients with chronic rheumatic disease have access to a nurse for education** **Yes / No** **If yes, go to Q5.1** **If no, go to Q5.2** **Is this contact for patient education by (please select all that apply)** **Scheduled appointment** **Mobile phone** **Videocall or other digital technology** **Timetabled classes** **Other (please specify)** **Do you think the educational tools in your rheumatology service are timely and meet patients' needs? (Please comment)** **Go to Q6.0**	Checkbox: select one Checkbox: select multiple Free text

Service standards continued.

	(Hidden S6) Do patients with chronic rheumatic disease have access to a nurse-led telephone service for ongoing support	
	Yes / No **If yes, go to Q6.1** **If no, go to Q6.2**	
Q6.0	**How long are patients likely to wait for contact from the rheumatology service if they require ongoing support**	
	2–3 days	
	3–4 days	Checkbox: select one
	5 days	Checkbox: select multiple
6.1	**More than 5 days**	Checkbox: select one
	Go to Q7.0	Checkbox: select multiple
	Who would the rheumatology service refer patients to, if staff are not resources to provide ongoing support	Free text
	GP	
6.2	**Arthritis NZ**	
	Local support group	
	None	
	Other (please specify)	
	Go to Q7.0	
	(Hidden S7) Do specialist rheumatology nurses participate in comprehensive disease management of chronic rheumatic disease	
Q7.0	**Yes / No** **Go to Q7.1**	Select one
7.1	**Are there agreed protocols with the patient around this participation (please specify)**	Free text
	Go to Q8.0	
	(Hidden S8) Do specialised rheumatology nurses have their own consultations with chronic rheumatic disease patients? Yes / No	
	If yes, go to Q8.1 **If no, go to Q8.2**	
Q8.0		Checkbox: select one
Q8.1	**Are nurse consultations an addition to a follow-up rheumatologist appointment?**	Checkbox: select one
Q8.2	**Do nurse consultations replace rheumatologist follow-up appointments?**	Free text
	What are the aims of nurses consultations?	
	Go to 9.0	

Allied health services

Q9.0	**(Hidden S9) Do patients with chronic rheumatic disease, and difficulties with activities of daily living have access to the following publicly funded specialist allied health services when they are needed? (Select all that apply)** **1. Occupational therapists** **2. Hand physiotherapists** **Go to Q10.0**	Checkbox: select multiple
Q10.0	**(Hidden S10) Do patients with chronic rheumatic disease, and active foot problems have access to the following publicly funded specialist allied health services when they are needed? (Select all that apply)** **1. Podiatrists (incl orthotics)** **2. Orthotics only** **Go to Q11.0**	Checkbox: select multiple
Q11.0	**(Hidden S11) Do patients with chronic rheumatic disease have access to publicly funded specialist physiotherapy, with periodic review (select one)** **Yes / No** **Go to Q12.0**	Checkbox: select one
Q11.0	**(Hidden S11) Do patients with chronic rheumatic disease have access to publicly funded specialist physiotherapy, with periodic review (select one)** **Yes / No** **Go to Q12.0**	Checkbox: select one
Q12.0	**Please describe barriers to patients in your region accessing these services?**	Free text
Q13.0 **Q13.1**	**(Hidden S12) To aid in the diagnosis and management of inflammatory arthritis is access clinically appropriate publicly funded musculoskeletal imaging available? (please select all that apply)** **1. Ultrasound within the rheumatology department** **2. Magnetic resonance imaging (MRI)** **3. X-ray imaging within the hospital** **4. CT scans** **5. Bone mineral densitometry** **Go to 13.1** **What are the barriers (if any) for patients accessing imaging services? (Please comment)** **Go to Q14.0**	Checkbox: multiple Free text

Allied health services continued.

Q14.0 Q14.1 Q14.2	**(Hidden S13) Is a publicly funded qualified health professional who specialises in chronic pain management (e.g., specialist pain management physician or psychologist) available patients with chronic rheumatic disease who suffer from pain issues?** **Yes / No** **If yes, go to Q14.1** **If no, go to Q14.2** **Is this service accessed via** **1. Timetables group classes** **2. Individual appointments** **3. Both of these 1 and 2** **4. Other** **Go to 14.2** **What are the barriers (if any) for patients accessing chronic pain management services (please comment)** **Go to 15.0**	Checkbox: select one Free text
Q15.0	**(Hidden S14) Does the rheumatology service include an infusion unit for the delivery of specialist-prescribed intravenous medications (e.g., infliximab, tocilizumab, rituximab), which is supervised (directly, or at a distance) by a member of the rheumatology service** **Yes / No** **Go to 16.0**	Checkbox: select one
Q16.0 16.1	**(Hidden S15) Are combined clinics within the rheumatology service that involve other specialists for the management of chronic disease available for patients with chronic disease that spans different specialties (e.g., combined clinics with dermatology or ophthalmology).** **How well do you think these combined clinics work (or would work) to support patients health needs?** **Go to 17.0**	Checkbox: select one Free text
Q17.0 Q17.1	**(Hidden S17) Does your rheumatology service provide outpatient assessment for patients with non-inflammatory musculoskeletal conditions, such as fibromyalgia and osteoarthritis, when specialist input is sought by primary care?** **Yes / No** **Go to Q17.1** **How well resourced is your clinic to treat non-inflammatory conditions?** **Go to Q18.0**	Checkbox: select one Free text

Allied health services continued.

Q18 **Q18.1**	**(Hidden S18) Is your rheumatology service supported in undertaking health equity assessments, using tools such as the Health Equity Assessment Tool, at appropriate time intervals?** **Yes / No** **If yes, go to Q18.1** **If no, go to Q19.0** **How frequently is the HEA reported?** **Go to Q19.0**	Checkbox: select one Free text
Q19.0 **Q19.1** **Q19.2** **Q19.3**	**(Hidden S20) Does your rheumatology service offer telephone or video follow-up consultations?** **Yes / No** **If yes, go to Q19.1** **If no, go to Q19.2** **Are these forms of follow-up routinely used by:** **1. Rheumatologists?** **2. Rheumatology nurses?** **3. Only used in exceptional situations (such as during the COVID-19 restrictions)?** **Go to Q19.3** **Are the plans in place to offer patients telephone or video follow-up consultations?** **Yes / No** **Go to 19.3** **What barriers, if any, are there to extending this service?** **Go to 20.0**	Checkbox: select one Checkbox: multiple Checkbox: select one Free text
Q20.0 **Q20.1**	**(Hidden S19) Does your rheumatology service have a plan for implementing and evaluating processes that aim to achieve equitable health outcomes for Māori, and other priority groups, as appropriate?** **Yes / No** **Go to Q20.1** **What, if any, barriers have been experienced in implementing an equitable outcomes plan?** **Go to Q21.0**	Checkbox: select one Free text

Allied health services continued.

Q21.0 **Q21.1**	**(Hidden S21)** **Does the rheumatology service have measures in place so that patients under its care, and admitted to a public (DHB) hospital can access a timely inpatient review, if requested and clinically appropriate?** **Yes / No** **Go to Q21.1** **Does your rheumatology service have resources to effectively manage an in-patient review process. Please comment.** **Go to Q22.0**	Checkbox: select one Free text
Q22.0 **Q22.1** **Q22.2** **Q22.3**	**(Hidden S22) Are patients with chronic rheumatic disease that is clinically stable, considered for discharge to primary care for ongoing follow-up without ongoing need for rheumatology service input (apart from administrative responsibilities, such as endorsement for methotrexate).** **Yes / No** **If yes, go to 22.1** **If no, go to 22.2** **Do patients discharged to primary care have clear, written treatment plans?** **Yes / No** **Go to 22.2** **Are there plans for rapid rheumatology reassessment if the patient's condition changes?** **Go to 22.3** **What are the most important barriers to discharge to primary care for clinically stable patients in your service?** **Go to 23.0**	Checkbox: select one Checkbox: select one Checkbox: select one Free text

Allied health services continued.

	(Hidden S24) Do patients have specific rheumatologist(s) responsible for their care? **Yes / No** **Go to 23.1** **Are patients provided with the names and roles of other medical, nursing, allied health and administrative staff who may be involved in their care?**	
Q23.0	**1. Yes, patients are provided with a written list of health professionals involved in their care**	Checkbox: select one
Q23.1		Checkbox: select one
Q23.2	**2. Yes, patients are told who is involved/introduces to health professionals involved in their care**	Free text
	3. No, patients are not assigned to specific health care professionals **Go to Q23.2** **Are there staffing or other factors that impact on assigning patients to specialist rheumatology staff?** **Go to Q24.0**	
	(Hidden S25) Does the rheumatology service actively provide information to patients with rheumatic diseases about outside services or providers that provide social, emotional or practical support? (select all that apply) **1. National support services**	
Q24.0	**2. Local support groups**	Checkbox: multiple
Q24.1	**3. Government services that provide practical and financial support**	Comment: free text
	4. Other services that can support patient needs **Go to Q24.1** **How accessible are support services to rheumatology patients in your service?** **Go to P1.0**	

Principles of care

The following three questions ask you to indicate how strongly you agree with the following principles, regardless of whether your service can meet them at this stage, or not. Please indicate your agreement with the following principles, where 1=not at all, and 7=strongly agree.

P1.0	**(Hidden P1) A rheumatology service should value individuals and their experiences through positive interpersonal interactions, supportive relationships and within a health system organised with the patient's needs at the centre**	Scale: 1–7
P2.0	**(Hidden P2) Healthcare professionals in a rheumatology service should actively support patients to participate in decision making and self-management** **Comment**	Scale: 1–7 Comment: free text
P3.0	**(Hidden P3) Healthcare professionals in a rheumatology service should ensure patients' education requirements about their rheumatic condition are met; including appropriate communication, content, and framed to support patients' active involvement in shared decision making** **Comment**	Scale: 1–7 Comment: free text

Please click the arrow to submit your questionnaire. The following page will provide a link if you would like to receive a copy of the study findings.

SUMBIT

Thanks for completing the questionnaire. Please click on the below link if you would like a summary of the results. The link will open in a new tab.

(Insert link on next screen)

Please provide your name and email address so we can contact you with a summary of the findings.

Name: _____

Email: _____

Thank you, please press submit.

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Appendix 2: Changes reported by clinical services leads between survey (2023) and update data request (2025).

Southern: Nursing FTE increased from 2.2 to 2.4 (0.2 increase).
South Canterbury: Rheumatologist FTE increased from 0.4 to 0.5 (0.1 increase).
Canterbury–West Coast: No change.
Nelson–Marlborough: Rheumatologist FTE increased from 0.6 to 0.8 (0.2 increase). Nursing FTE decreased 0.9 to 0.8 (0.1 decrease). Limited access to pain services—change of "always meets" to "sometimes meets".
Wellington: Employed rheumatologist FTE increased from 1.95 to 3.35 (1.4 increase—fill vacancies and increased FTE of 0.6).
MidCentral–Whanganui: Rheumatologist FTE increased from 1.0 to 1.5 (0.5 increase).
Hawke's Bay: Hand therapy now "sometimes meets". Remote care phone consults care be provided.
Taranaki: No change.
Tairāwhiti: No change.
Lakes: No change to rheumatologist FTE (0.7) or nurse FTE (0.8); however, focus changed to fracture liaison service (including bone densitometry) so effective rheumatology FTE now rheumatologist 0.6 (decrease 0.1) and nurse 0.5 (decrease 0.3).
Bay of Plenty: No change.
Waikato: No change.
Counties Manukau: Nurse FTE increased from 2.4 to 3.1 (0.7 increase).
Waitematā: No change.
Auckland: No change.
Northland: Nurse FTE increased to 1.0 from 0 (increase 1.0).