

Clinical laboratory professionals are essential healthcare professionals who determine laboratory information from analyses. This information assists physicians in patient diagnosis and treatment.

Licensed Clinical Laboratory Professionals

According to the North Dakota Board of Clinical Laboratory Practice, there were 1,133 clinical laboratory professionals licensed in North Dakota as of 2020.

Clinical laboratory professionals are licensed in the following three categories:

- Clinical laboratory technicians/medical laboratory technicians (CLT/MLTs) are individuals trained at the associate's degree level and they perform general laboratory testing.
- Clinical laboratory scientists/medical technologists (CLS/MLS/MTs) are individuals trained at the bachelor's degree level and they can perform general laboratory testing along with more advanced testing and laboratory operations.
- Specialists refer to individuals who have obtained certification at the MLS/MT level specifically focused on only one of the major testing areas of the laboratory (as opposed to all testing areas).

Most of the clinical laboratory professionals who are licensed in North Dakota are licensed as CLS/MTs (n = 786, 69.4%), followed by CLT/MLTs (n = 337, 29.7%), and specialists (n = 10, 0.9%).

Table 1 shows that CLS/MTs were most common in the state, followed by CLT/MLTs and specialists. While there were several clinical laboratory professionals who were licensed in North Dakota, not all were actively working in the state as a clinical laboratory professional.

Table 1. Number of Clinical Laboratory Professionals Licensed and Working in North Dakota Per 10,000 North Dakota Residents

Type	Number Licensed in ND (per 10,000)	Number Working in ND (per 10,000)
CLT/MLTs	4.4	3.6
CLS/MTs	10.4	8.6
Specialists	0.1	0.1
Total	15	12.3

Number of Years Since Graduation

CLS/MTs working in North Dakota had been in practice, on average, for 14 years and 6 months. CLT/MLTs had been in practice, on average, for 15 years, 5 months. Specialists had typically been in practice for 8 years and 11 months.

Practice Characteristics

Across all clinical laboratory professionals, most practiced in urban areas (Table 2). Whereas CLT/MLTs and CLS/MTs practiced in urban areas in comparable amounts (57.5% versus 59.5%, respectively), CLT/MLTs were much more likely to practice in isolated rural areas (25.2%) compared to CLS/MTs (16.2%). There were four CLT/MLTs who did not list a rural-urban designation (not included in Table 2).

Table 2. Practice Characteristics of Clinical Laboratory Professionals Working in North Dakota by Rural-Urban Status of Primary Workplace

Rural-Urban Status	Clinical Laboratory Professionals		CLT/MLTs		CLS/MTs		Specialists	
	N	%	N	%	N	%	N	%
Urban	545	59.1	153	57.5	386	59.5	6	75.0
Large Rural	151	16.4	28	10.5	121	18.6	2	25.0
Small Rural	55	6.0	18	6.8	37	5.7	-	-
Isolated Rural	172	18.6	67	25.2	105	16.2	-	-
Total	923	100.0	266	100.0	649	100.0	8	100.0

Conclusions

- Out of the 1,133 clinical laboratory professionals licensed in North Dakota, approximately 81% were working in their licensure field.
- This translates to 15 clinical laboratory professionals per 10,000 ND residents who were licensed versus 12.3 per 10,000 who were working.
- Most CLT/MLTs worked in urban (57.5%) and isolated rural areas (25.2%); CLS/MTs were most likely to work in urban (59.5%) and large rural areas (18.6%).

Data

North Dakota Board of Clinical Laboratory Practice. (2021).
Licensure file. Retrieved from ndclinlab.com/