

# **Ophthalmology Manpower Development in Ethiopia**

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## **Historical Background**

Much is not known about ophthalmic manpower and of eye services in Ethiopia before Prof. Bietti of University of Rome, (who described Bietti's – Dahlak – climatic keratopathy in 1933), has been running an Eye Unit in Asmara with Prof. Guerra as its head.

In early 1940s the school health service concentrating on Trachoma diagnosis and treatment by copper sulphate scraping, was under the care of the Italian, Dr. Pace. Dr. Hadji Michaelis, a Cypriot national headed the school eye services as well as the eye unit of the Menelik II Hospital up till the mid 1960s. Strong ties with Tito's Yugoslavia in the 1960s, resulted in bringing Dr. Obradovic, who was at the time the prominent ophthalmologist in Ethiopia.

The eye services in Asmara, was prominent up until the Bulgarian ophthalmologists replaced Prof. Guerra and then in the late 1970s. "Dr. Worku Balcha" a health officer trained in a three years program at the eye department in Menelik II Hospital and joined the staffs at Asmara.

By this time also, a Swedish ophthalmologist had trained some six health assistants in basic eye care and a number of these with those trained by the German group at the former Haile Sellassie 1<sup>st</sup> Hospital, along the four nurses who had a 6 months training at Moorfields in the UK, were the core for beginning a proper ophthalmic services at Menelik II Hospital by 1970.

Throughout this time, Dr. Assefa Tadesse trained in optometry in UK was rendering valuable services at Menelik II hospital. The WHO has provided an Israeli, Dr. Feitelberger who did a lot of field work in Trachoma and also trained additional health workers in this field. In the early 1970s, Dr. Klaus Jacob from "West Germany" and Dr. Rokos from Czechoslovakia were at Haile Silassie I Hospital Eye Department with Dr. Ahmed Adus joining them after his arrival from Prague University with qualifications in ophthalmology.

It was very apparent to some Ethiopians at that juncture, that there has to be accelerated manpower development in the ophthalmic field to overcome the often quoted ratio at International forums of: ONE OPHTHALMOLOGIST FOR ONE MILLION POPULATION" in sub-Saharan countries including Ethiopia.

Hadassah Medical centre and The International Eye Foundation (IEF) under the late Harry King were promoters for ophthalmic manpower development as well as rendering ophthalmic services in Harrar. The spin off of all this was that senior ophthalmic residents from the USA under the supervision of senior ophthalmologists serving the IEF were deployed in Harar till 1974-75. Dr. Tadele Jembere was given

an International Eye Foundation fellowship to train in ophthalmology at Sheie Eye Institute in Philadelphia. He did not come back to Ethiopia, but rendered useful teaching through the UNDP TOKTEN program on three occasions.

Dr. Pawlos arrived on the scene in 1964 and joined Dr. Zagora, another Israeli ophthalmologist at Menelik II hospital. Dr. Mohammed Seid and Dr. Fekede Mengistu were sent to Israel for ophthalmology training respectively after local exposure to ophthalmology in this country. In 1980, Drs. Bayuh Alemu, Zerai Mengistu and Wonda Alemayehu joined the three years ophthalmology graduate program at Menelik II Hospital.

The Eye department uninterruptedly continued to recruit young medical doctors to join the residency program, despite constraints of staff and material. The launching of Ophthalmic Medical Assistant auxiliary training program had a spin off of graduating 51 OMAs and getting equipments, journals and books from the IEF. The establishment of Ophthalmological Society of Ethiopia, creating a forum for the exchange of scientific clinical research, is considered to enhance the manpower development in the specialty.

Subsequently, 19 Ethiopian ophthalmologists, few cataract surgeons and ophthalmic nurses took their training abroad and came back to their country to provide ophthalmic services. Since the last six years, ALERT, Quiha, Yirgalem, and Gondar hospitals started to train ophthalmic nurses. Currently, Jima University has started residency program. Jima, Gondar and Debub universities started training cataract surgeons.

Even though the training end result has been to produce general ophthalmologists, Glaucoma service was the earliest established after Dr. Bayuh's training in Bristol, UK. Dr. Zerai was sent to Europe for exposure and training in Retinal surgery and participated in instructing residents. Through ORBIS International, fellowships in the field of anterior segment, oculoplasty, retina, glaucoma, community and pediatric ophthalmology were carried. Hopefully, further polarization of individuals to specific subspecialties will continue in the future.

**Table I: List of Ethiopian Ophthalmologist by place of work and Year of graduation**

No	Name	Institution	Place of Work	Year of Graduation	Remarks
1	Dr. Paulos Quana'a	----	--	1964	Retired
2	" Mohamed Seid Gebeye	----	--		Deceased
3	" Ahmed Adus	----	--		"
4	" Yideglign Hailemariam	Private	AA		
5	" Fekede Mengistu	"	"		
6	" Tewolde Woldegiorgis	-----	---		Deceased
7	" Tsadkan Gebrehiwot	-----	---		Retired

8	” Bayuh Alemu	Gov - AAU	AA	1983	
9	” Wondu Alemayehu	NGO - Orbis	AA		
10	” Zerai Mengistu	Private	AA		
11	” Elias Geleta	”	”	1987	
12	” Tatek Gebremariam	-----	---	1988	Retired
13	” Mohamed Kedir	-----	---		Deceased
14	” Seman Yishak	Private	AA		
15	” Sisay Hirpaye	----	”		Retired
16	” Abebe Bejiga	Gov - AAU	AA	1989	
17	” Genet Alemu	-----	---		Abroad
18	” Elfinesh Tola	-----	---		”
19	” Abraham Wondimu	Gov - ALERT	AA	1990	
20	” Mulu Admasu	” ”	”		
21	” Negusie Zerihun	Private	AA		
22	” Ayehuberehan Gizaw	-----	---		Abroad
23	” Tafesework Girma	-----	---	Abroad	
24	” Allehone Ayalew	Gov - MIIH	AA	1991	
25	“ Sofia Yosef	Gov - St.Paul’s	AA		
26	” Liknaw Adamu	NGO - MoH	”		
27	” Almaz Daniel	Private	”	1992	
28	” Almaz Eshete	”	”		
29	” Negash Ayele	-----	---		Abroad
30	” Asefa Mamo	Private	AA		
31	” Fitsum Bekele	“	Mekele	1995	
32	” Genet Meressa	----	----		Abroad
33	” Musie Haile	----	----		”
34	” Tilfework Woldetensae	Gov - ALERT	AA		
35	” Desta Tadesse	Private	Nekemte		
36	” Amanuel Haile	Gov - Police	AA		
37	” Negusu Jote	“ - Kuyera	Shashemene	1996	
38	” Samson Bayu	“ - AAU	AA		
39	” Azeb Yusuf	” - MIIH	AA		
40	” Yohannes Mengesha	-----	-----	Abroad	
41	” Tegene Gizaw	Gov – Dil Chora	Diredawa	1997	
42	” Fikru Melka	“ - AFGH	AA		
43	” Aster Abate	“ - MIIH	AA		
44	” Abonesh Girma	“ - AAU	AA		
45	” Workayehu Kebede	” ”	”		
46	” Yonas Tilahun	” ”	”	1998	
47	” Tegene Asefa	Private	Adama		
48	” Nuredin Abdi	Gov - Hiwot Fana	Harar		
49	” Mulu Lisanework	NGO - CBM	AA		
50	” Meseret Awoke	NGO - St. Fransis	Adama		
51	” Abdu Seid	Private	Bahir Dar		
52	” Amir Bedri	NGO - ITI	AA		

53	” Tiliksew Teshome	Gov - AAU	AA	1999	Abroad	
54	” Azeb Yihune	-----	----			
55	” Yeneneh Mulugeta	NGO - Orbis	AA			
56	” Abiye Mulugeta	Gov - RDH	AA	2000	Abroad	
57	” Asegid Aga	-----	----			
58	” Yilikal Adamu	Gov - AAU	AA			
59	” Abeba Teklegiorgis	” ”	”	2001		
60	” Yosef Worku	Gov - DU	Hawasa			
61	” Ameha Bogale	” ”	”			
62	” Yared Asefa	Gov - GU	Gondar	2002		
63	” Tesfay Haileselesie	Private	AA			
64	” Asfaw Wondimu	”	”			
65	” Agraw Mohamed	”	”			
66	” Solomon Melaku	NGO - St. Fransis	Woliso			
67	” Elias Hailu	Gov - JU	Jima			
68	” Kefyalew Regasa	NGO-Free Meth.	AA	2003		
69	” Yilikal Alemu	Gov-Debremarkos	Debremarkos			
70	“ Zelalem Eshetu	NGO - Orbis	AA			
71	” Alemayehu Sisay	” ”	”			
72	” Menen Ayalew	Gov - AAU	”	2004		
73	” Tigest Ahmed	“ - St.Paul’s	AA			
74	” Fitsum Bekele	NGO - GBL	Butajira			
75	” Mohamed Shafi	NGO - Nekemte	Nekemte			
76	” Dawit Semunegus	----	----			Abroad
77	” Meriem Siraj	Gov - Police	AA			
78	” Abraham Tesfaye	“ - GU	Gondar	2005		
79	” Getnet Negussie	Gov - MIIH	AA			
80	” Berhan Solomon	“ - JU	Jima			
81	” Abu Beyene	“ - Yirgalem	Yirgalem			
82	” Fikru Gelesu	Private	AA	2006		
83	” Ashenafi Bekele	Gov - GU	Gondar			
84	” Aster Kebede	Private	AA			
85	” Yemsirach Hailu	”	AA			
86	” Genet Bezabih	Gov - Police	AA	2007		
87	” Alemwork Meseret	“ - Felegehiwot	Bahir Dar			
88	” Worku Mekonen	“ - JU	Jima			
89	” Jemal Shete	“ - H/M Mamo	Adama			
90	” Jemal Zeberga	“ - Karamara	Jigjiga			
91	” Alemayehu Bayu	“- Debreberhan	Debreberhan			
92	” Abera Embaye	Private	AA			
93	” Dawit Merdasa	”	Nekemte			
94	” Alem Michael	NGO-SignumVitae	AA			
95	” Meselech Yemane	Private	AA			
96	” Arikew Woldemichael	”	”			
97	” Menbere Alemu	Gov - ALERT	AA			

98	” Moges Eshetu	Private	AA		
99	” Demissie Tadesse	--	---		Abroad
100	” Araya Tsega-Ab	Gov - ALERT	AA		
101	” Solomon Abate	Private	AA		
102	” Abere Ayalew	Gov - St. Paul’s	AA		
103	” Gebremedhin Kidane	“ - RDH	AA		
104	” Tilahun Bahiru	Private	Dire Daw		
105	” Yazew Abegaz	Gov - Dessie	Dessie		
106	” Abdulahi Mohamed	“ - Karamara	Jigjiga		
107	” Alemu Mamuye	“ - Borumeda	Borumeda		
108	” Tilahun Kiros	“ - Quiha	Mekele		
109	” Selamawit Asefa	Private	AA		

**Table II: Number of Ophthalmologists by country of training**

<b>Country</b>	<b>Number</b>	<b>Percent</b>
Ethiopia	84	77.1%
East/West Europe	13	11.9%
Caribbean/Cuba	5	4.6%
Middle East	4	3.7%
China	2	1.8%
Africa/Kenya	1	0.9%
<b>Total</b>	<b>109</b>	<b>100.00</b>

**Table III: Number of ophthalmologists practicing Clinical ophthalmology regularly**

<b>Institution</b>	<b>Number</b>	<b>%</b>
Government/Public	51 (2 expatriates)	60.0
Private	28 (1 expatriate)	33.0
NGO run Clinics	6	7.0
<b>Total</b>	<b>85</b>	<b>100.00</b>

**Table IV: Number of Practicing Ophthalmologists by Region**

<b>Region</b>	<b>Number</b>	<b>%</b>
Addis Ababa	53 (2 expatriates)	62.4
Oromia	12 (1 expatriate)	14.0
Amhara	9	10.6
SNNPS	4	4.0

Tigray	2	2.3
Somale	2	2.3
Diredawa	2	2.3
Harari	1	1.1
<b>Total</b>	<b>85</b>	<b>100.00</b>

**Table V: Number of Ophthalmologists working in NGO (office)**

Name of NGO	Number
Orbis International Ethiopia	4
CBM	1
ITI	1
WHO/MoH	1
<b>Total</b>	<b>7</b>

**Table VI: Number of Ophthalmologists by Specialty**

Type of specialty	Number
Community Ophthalmology	5 (1 on training)
Anterior segment	5
Retina and Vitreous	4
Pediatrics Ophthalmology	5 (2 on training)
Glaucoma	3
Oculoplastics	1
<b>Total</b>	<b>23</b>

## Summary

Ophthalmology training has been started by sending Ethiopian trainees abroad. The first Ethiopian ophthalmologist, Dr. Paulos Quana'a has finished his training in the American University of Beirut in 1964 and returned back to Ethiopia. Subsequently, Dr. Mohamed Seid Gebeye from Israel, Dr. Ahmed Adus from Czechoslovakia, Dr. Yidegign Hailemariam from Yugoslavia, Dr. Fekede Mengistu and Dr. Tewolde Woldegiorgis from Israel returned to their country and started ophthalmology service.

Post graduate training in ophthalmology has been started in 1980 under the FoM, AAU at Menelik II Hospital. The first three residents namely Dr. Bayuh Alemu, Dr. Wondu Alemayehu and Dr. Zerai Mengistu graduated in 1983. Since then, the department has graduated 84 ophthalmologists.

In between these years 19 ophthalmologists took their training abroad and returned back home for practice. Recently three expatriate (Indian) ophthalmologists are working in Ras Desta Dantew Hospital, Jima University hospital and Adventist Mission clinic (AA) respectively.

Out of the total 109 ophthalmologists, four deceased, four retired ophthalmologists are not practicing ophthalmology.

Among twelve ophthalmologists who left the country, three of them are practicing clinical ophthalmology in Eritrea, Kenya and Mozambique.

From 85 practicing ophthalmologists in the country, only 73 of them are thought to be surgically active and three of them are expatriates.