The WHO ILAR COPCORD Latin America
Consistent With the World and Setting a New Perspective
Arvind Chopra, MD, DNB

The Community-Oriented Program for Control of Rheumatic Diseases (COPCORD) was launched through the concerted effort of the International League of Associations for Rheumatology (ILAR) and World Health Organization (WHO) in the early 1980s to acquire data on musculoskeletal (MSK) pain and disability. Its focus was on the developing world. COPCORD was designed to provide a low-cost, low-infrastructure model and was to be carried out in 3 successive stages—collect population data in a house-to-house survey (stage 1), educate community and identify risk factors (stage 2), and implement control and preventive strategies (stage 3). The key issues were identification of a well-defined sampling frame, a defined sampling frame (not necessarily randomized), and a grassroots rheumatology-oriented physician. COPCORD surveys have been completed in 22 countries. Started in the Philippines, COPCORD rapidly swept across the Asia-Pacific region and has traditionally enjoyed a vantage position with the Asia-Pacific League of Associations for Rheumatology. After slow beginnings, rapid strides were made in Latin America, and the recent COPCORD surveys in Mexico and Guatemala, with sufficient population samples, have unraveled newer insights in community rheumatology and epidemiology in particular.

COPCORD Guatemala was a well-planned and executed survey of 8000 population and equally divided between urban and rural communities. Importantly, the whole survey was completed in a timely fashion (9 months) using the COPCORD Bhigwan (India) fast-track model. Earlier in 1996, a 7000+ population survey was completed in the village of Bhigwan in 5 weeks’ time. The model advocates a carefully designed and a priori-rehearsed strategy, well-coordinated team effort (physicians and a large team of trained local health volunteers), and a field operation in which the 3 phases of stage 1 survey are completed in parallel. Speedy execution is a critical factor (population survey) to ensure robust community compliance and response, comprehensive data capture, and a truly suitable “point prevalence” data.

COPCORD Guatemala should be viewed in a Latin American perspective. Table 1 provides an overview of some of the key prevalence data from COPCORD surveys in the region. All surveys used a similar COPCORD core questionnaire (CCQ) that was earlier adapted (regional use) and validated. The primary outcome was MSK pain and disability. Except for the Guatemala survey, all other COPCORD surveys were carried out in randomized population samples. The diversity in culture, traditions, dialect, and lifestyle in Latin America is striking and a challenge to community surveys and national prevalence statistics, and this was well described by both COPCORD Mexico and Guatemala. Although the crude point prevalence of MSK pain (11.9%), rheumatoid arthritis (RA; 0.7%), osteoarthritis (OA; 2.8%), and gout (0.01%) in Guatemala was intriguingly less compared to that in other Latin American countries (Table 1), nonetheless it represents a significant burden of rheumatic disorders in the community. The frequency of low back pain was abysmally low, and no case of ankylosing spondylitis (AS) was reported. Most of the members of the community in Guatemala lead modest and hard lifestyles (labor-intensive) and probably do not consider low back pain important enough compared with other MSK pain and disorders (Abraham Kutzbach, personal communication). The frequency of HLA B27 is considered to be lower in the community and relatively fewer of cases of AS are seen (Abraham Kutzbach, personal communication). COPCORD Guatemala has reported a higher prevalence of MSK pain and disorders in the rural community.

A national COPCORD survey of 19,213 people in 5 study sites (Chihuahua, Nuevo Leon, Sinaloa, Yucatan, and Mexico City) was recently carried out in Mexico. Although national prevalence statistics were reported, there were obvious differences between study sites, for example, the minimum and maximum prevalence rates were 1% (Mexico City) and 2.8% (Yucatan) for RA, 2.5% (Sinaloa) and 20.5% (Chihuahua) for OA, 0.1% (Yucatan) and 0.8% (Chihuahua) for gout, and

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were several times higher than those

0.15 0.01

Table 1: Prevalence (%) of MSK Pain and Selected Rheumatic Disorders in WHO ILAR COPCORD Surveys in Latin America

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<tbody>
<tr>
<td>Survey sample size</td>
<td>2500</td>
<td>3038</td>
<td>3155</td>
<td>1965</td>
<td>19,213</td>
<td>8000</td>
</tr>
<tr>
<td>MSK pain</td>
<td>23</td>
<td>30.9</td>
<td>43.9</td>
<td>46.5</td>
<td>25.3</td>
<td>11.9</td>
</tr>
<tr>
<td>Low back pain</td>
<td>6.3</td>
<td>NA</td>
<td>11.6</td>
<td>3.3</td>
<td>8.0</td>
<td>0.5</td>
</tr>
<tr>
<td>RA</td>
<td>0.3</td>
<td>0.46</td>
<td>1.24</td>
<td>0.5</td>
<td>1.49</td>
<td>0.7</td>
</tr>
<tr>
<td>OA</td>
<td>2.3</td>
<td>4.1</td>
<td>20.4</td>
<td>14.4</td>
<td>10.24</td>
<td>2.8</td>
</tr>
<tr>
<td>AS</td>
<td>NA</td>
<td>NA</td>
<td>0.1</td>
<td>0.49</td>
<td>0.15</td>
<td>0.01</td>
</tr>
<tr>
<td>Gout</td>
<td>0.3</td>
<td>NA</td>
<td>0.38</td>
<td>NA</td>
<td>0.35</td>
<td>0.01</td>
</tr>
<tr>
<td>STR</td>
<td>NA</td>
<td>NA</td>
<td>6.4</td>
<td>11.7</td>
<td>5.39</td>
<td>1.56</td>
</tr>
<tr>
<td>FM</td>
<td>1.4</td>
<td>NA</td>
<td>0.2</td>
<td>NA</td>
<td>0.68</td>
<td>NA</td>
</tr>
<tr>
<td>Systemic lupus erythematosus</td>
<td>NA</td>
<td>NA</td>
<td>0.06</td>
<td>0.05</td>
<td>0.06</td>
<td>0.06</td>
</tr>
</tbody>
</table>

aSpondyloarthropathy.
bOne case of reactive arthritis.
cRheumatic regional pain syndromes, for example, enthesitis.
dOne case of systemic lupus erythematosus and 4 cases of undifferentiated collagen vascular diseases.

NA, not available in the published literature.

Inflammatory arthritis and rheumatism are the bedrock of rheumatology. Fewer than 10% of the members of the community in COPCORD India experienced some form of IA. Having appendicular painful rheumatic syndrome as per a priori criteria, and most cases were found in the Mexico City area; one third of cases of nontraumatic limb pain remained unclassifiable. To a large extent, the neglect for IDS and STR is due to our poor understanding of their etiopathogenesis and lack of clinically meaningful diagnostic approach. Day-to-day occupational microtrauma and overuse are likely to be important risk factors but are difficult to measure objectively. Importantly, these disorders are amenable to nonpharmacologic measures and health education. The problems of diagnosis, burden, and impact of these common disorders were first highlighted by COPCORD India.

Fibromyalgia (FM) has been consistently searched for in several COPCORD. Unlike other Latin American communities, a fairly high burden of FM was reported by COPCORD Mexico; a maximum prevalence of 1.7% was reported in Mexico City. Although the extent of soft tissue aches and pains seemed significant, no case diagnosed as FM was reported by COPCORD Guatemala.

Inflammatory arthritis and rheumatism are the bedrock of rheumatology. Fewer than 10% of the members of the community in COPCORD India experienced some form of IA, and a significant proportion remained undifferentiated. The prevalence of RA in Mexico and Cuba (Table 1) was strikingly high. In COPCORD Yucatan, 1.2% (95% CI, 2.3–3.3%) of the members of the community experienced RA. A non-COPCORD survey of 26,691 subjects in the San-Louis Potosi region (Mexico) reported RA prevalence of 2.6%. COPCORD Mexico also reported a significant burden of undifferentiated IA. COPCORD surveys were not designed to target uncommon disorders such as lupus and other collagen vascular diseases. Interestingly, using population samples fewer than 5000, several Latin America COPCORD surveys have reported lupus (prevalence, ~0.06%), which is a significant contribution toward the epidemiology of rheumatic disorders in this part of the world.

Finally, after almost 30 years of global experience and success, COPCORD stands vindicated. Nobody has paid more heed to the woe of aches and pains in the community than the WHO-ILAR COPCORD. Pain in the last 7 days (80.1%), pain score higher than 4 in the visual analog scale (62.7%), health...
assessment questionnaire scores higher than 0.8 (88.9%), physical limitation (88.1%), and known previous diagnosis (89.8%) provided the best specificity to the CCQ for identifying rheumatic disorders in the community in COPCORD Mexico.23 The CCQ can help patients obtain a timely diagnosis (and early treatment by the rheumatologist) and reduce burden of specialist services.

The COPCORD Latin America investigators might collate their results and encourage other countries in the region to carry out COPCORD and fill the gaps in the epidemiology of MSK pain and rheumatic disorders. COPCORD stages 2 and 3 should be begun. Based on identification of risk factors and probable etiologies, community health education and intervention programs (control) can now be initiated. Cigarette smoking (odd ratio, 1.6; 95% CI, 1.4–2.0; P < 0.001) was found to be significantly associated with nontraumatic MSK pain in COPCORD Mexico.4 Oral tobacco use has been repeatedly found to have a significant association with MSK pain in COPCORD India.7,24 COPCORD must fuel public health programs in rheumatology.

One of the advantages of a convenience sample (COPCORD survey) is that nobody in the neighborhood is left out, and community-friendly comprehensive rheumatology services (diagnosis, treatment, and control) can be started immediately after the survey. COPCORD Bhigwan 17,17 is in its 17th year of community service and provides free-of-cost therapy guidance (diagnosis, treatment, and control) can be started immediately and community-friendly comprehensive rheumatology services (diagnosis, treatment, and control) can be started immediately after the survey. COPCORD Bhigwan 17,17 is in its 17th year of community service and provides free-of-cost therapy guidance (diagnosis, treatment, and control) can be started immediately and community-friendly comprehensive rheumatology services (diagnosis, treatment, and control) can be started immediately after the survey. COPCORD Bhigwan 17,17 is in its 17th year of community service and provides free-of-cost therapy guidance (diagnosis, treatment, and control) can be started immediately after the survey. COPCORD Bhigwan 17,17 is in its 17th year of community service and provides free-of-cost therapy guidance.

REFERENCES