

SCIENCE'S COMPASS

Third, as mandated by changing demographics, nations should be helped to share the most successful approaches for coping with noncommunicable diseases such as cancer, diabetes (cases of which are likely to treble in the next 30 years), and heart disease.

To succeed at this mammoth task, decentralization must occur at WHO. Successful global organizations learn this lesson. One example is Asea Brown Boveri, where 100 managers in the Zurich headquarters (less than 1% of the total staff) oversee a \$36 billion global firm with more than 200,000 employees who conduct engineering operations and services. Contrast this efficiency with WHO's profile: more than a third of its 4500 staff sit at desks in Geneva.

WHO's business is human lives. There is not another moment or dollar to waste.

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Oceans and Climate Shifts

An article "As the oceans switch, climate shifts" by Richard A. Kerr (News Focus, 10 July, p. 157) presents a timely summary of latest studies on large-scale oscillations in the climate system with (multi-) decadal time scales. Emphasized in the article are near-global or basin-wide patterns like PDO (Pacific Decadal Oscillation). Presumably, an underlying assumption is that decadal sea surface temperature (SST) anomalies must be distributed near globally or, at least, as broadly as El Niño-related anomalies whose time scales are shorter than a decade. Influence of El Niño spreads widely over the extratropics through atmospheric "teleconnection" and forces SST underneath to change. A pattern like PDO would emerge if a similar "teleconnection" occurs also on the decadal scale.

Yet, if midlatitude oceanic processes play an active role in the decadal variability independently of tropical processes, then significant SST anomalies associated with the midlatitude mode may be confined within a local oceanic gyre or even along a narrow oceanic front. Several recent studies suggest that is likely the case.

Over the North Pacific basin, decadal SST fluctuations correlated with the tropical variability were confined in the subtropical frontal zone. Stronger decadal fluctuations were observed in the subarctic frontal zone, but unlike in PDO they exhibited no simultaneous correlation with the tropical variability (1). This is suggestive of the presence of decadal variability inherent to the North Pacific atmosphere-ocean system, although the associated atmospheric anomalies extends over the North America.

An empirical orthogonal function analysis applied globally tends to preferentially extract a near-global pattern like PDO. The PDO time series presented apparently includes decadal and shorter time scales, implying that part of decadal anomalies generated in midlatitudes may be mixed up in PDO with near-global anomalies associated with El Niño.

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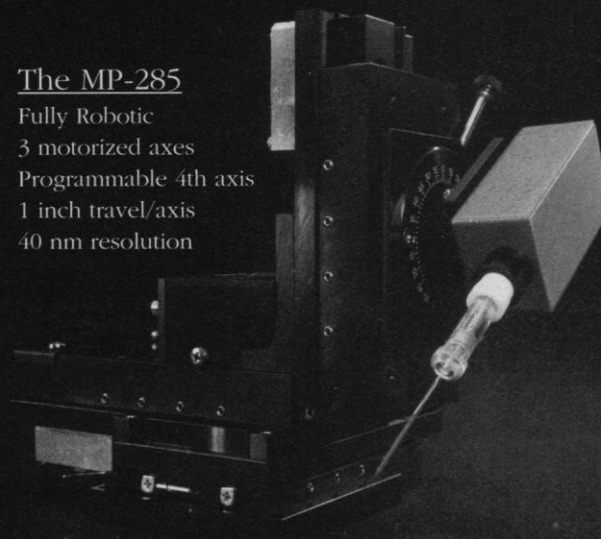
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