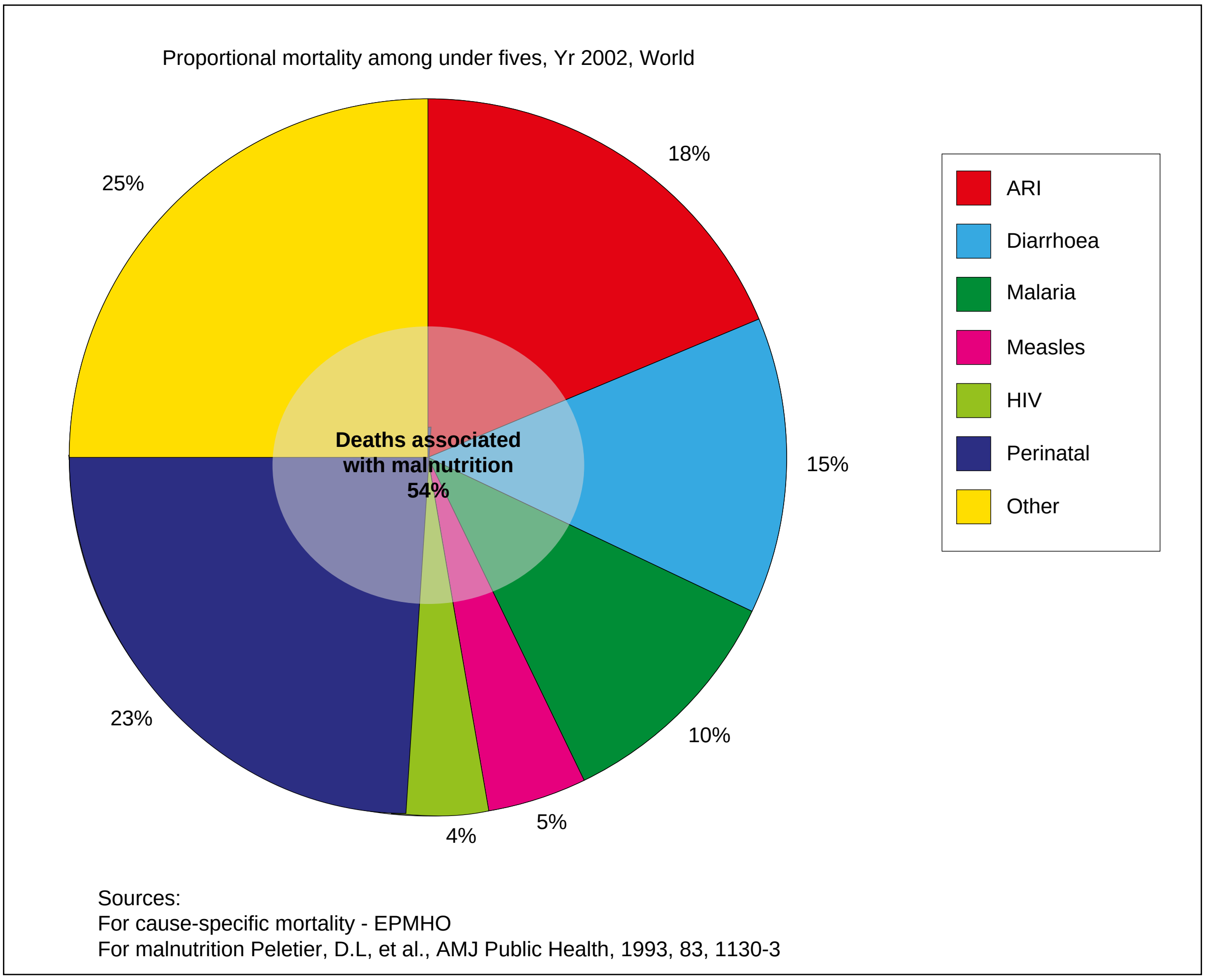
I / = d c /

A ne f he Millenni m De el . men G al , he Uni ed Na i n ha e ag eed he a ge f ed cing he m ali a e f child en nde fi e b hi d b he ea 2015. The magni de f hi challenge i ill a ed in Fig e 1 bel . The g a. h al highligh he en m di . a i be een child m ali a e in 'de el . ing' and 'de el . ed' c n ie (a defined b UNICEF and WHO).

Fig e 2 bel h child m ali fig e b ca e f 2002. The . ic e ill be a familia ne man , i h alm half f child m ali being ca ed b fi e . e en able infec i di ea e . A b ain ial . . i n f he ca eg 'O he ' i made . f nin en i nal inj ie .



F t e 2. M ali am ng child en nde fi e, ld ide, 2001

Source: Adapted from Cause-specific mortality rates from EIP/WHO

Wha ma be le familia i he im an le la ed b en i nmen al heal h ha a d in main aining hi i a i n, and hence he g ea en ial f en i nmen al heal h in e en i n im e i . I ha been e ima ed ha en i nmen al heal h ha a d acc n f a lea 25% f he e all b den f di ea e ld ide (Smi h e al, 1999), he a maj i f hi being b ne b de el ing c n ie . Dia h eal di ea e and ARI be een hem acc n f half f he gl bal b den f *environmentally related* di ea e, i h child en acc n ing f m f he m ali f m he e ca e . Unin en i nal inj ie make a f he 14% f he gl bal en i nmen all ela ed di ea e b den, and he e a e im an ca e f child m ali .

The ec i n bel c n ide in m e de ail he le f en i nmen al heal h in ed cing child m ali f m h ee im an ca e : ARI, dia h ea and nin en i nal inj ie .

A e a a ac

I d a t a e a ac ARI i he leading ca e f dea h in child en nde 5 ea in de el ing c n ie . The e idence f a link be een ind ai ll i n (IAP) and ARI in child en ha g n e he a en ea (B ce e al, 2000; Smi h e al, 2000) and acc ding WHO, nea l half f ARI m ali am ng nde -fi e can be a ib ed IAP (WHO 2004).

Gl ball , he m im an ce f ind ai ll i n, i h ega d childh d ARI, i bi ma f el ed in d me ic e and fi e . C en l a nd h ee billi n e le el n bi ma f el (B ce e al 2000). The maj i f bli hed die e ha child en h a e e ed IAP a e be een and fi e ime m e likel e e ience ARI (B ce e al 2000; Smi h e al, 2000). The blem i a ic la l ac e f h eh ld h lack ade a e h eh ld en ila i n, lack efficien e and h e inc me e ic hei ch ice f f el e.

A e en all f he a ailable da a n heal h im ac c me f m b e a i nal die . In he e die heal h mea e a e c m a ed ac h eh ld ha al ead e diffe en e f el . S ch die ffe a maj d a back beca e h eh ld ha e diffe en e f el ma al diffe i h e ec he fac ha infl ence hei heal h (eal h being ne c mm n e am le). Thi blem i kn n a c nf nding. T e c me hi blem he e i a need f ig in e en i n die in hich a ici a ing h eh ld a e a igned a and m ei he ecei e n ecei e he diffe en e f el e nde in e iga i n. The e i al an gen need f inf ma i n n he d e e n e a e f diffe en ll an . The e in n e i e he de el men f effec i e anda di ed echni e f mea ing e e (n Schi nding e al, 2002).

Red c f e, t e, IAP. P ible en i nmen al and beha i al in e en i n ed ce e e IAP f m bi ma f el incl de; ed cing ll i n b i ching cleane f el , and/ b ing cleane e , em ing ll i n h gh inc ea ed en ila i n and he e f h d chimne , and ed cing he e e f child en b e cl ding hem f m he c king a ea.

Al h gh n d f he heal h im ac f an in e en i n ha e been c m le ed, ne d i c en l nde a in G a emala l king a he effec i ene f an im ed d-b ning e (h ://eh . h.be kele .ed /g a/). A mall d in Ken a (ITDG 2002) f nd ha m ke h d e e m e effec i e a ed cing IAP han im ed e . H e e , he Ken an e e e e diffe en f m h e being ialled in G a e mala. C l al a ia i n in c king ac ice , h e de ign and a e n f f el e le he ibili f a ne- i e-fi -all l i n and nece i a e cl e a en i n l cal efe ence . Thi c m lica e he ea ch f effec i e in e en i n .

The i ch f m bi ma a cleane f el ch a cha c al, ke ene, li id e le m ga elec ici can ed ce le el f ind ai ll i n. H e e , hi i n i n likel be aff dable f he a maj i f h eh ld in he f e eeable f e (USAID, 2000). F el i ching i a l ng e m a eg (15-30 ea) ha ld need be im lemen ed i hin an a ia e lic f ame k (G ldembe g, 2000).

One le n ha ha eme ged f m in e en i n da e i ha he indi c imina e e f g e nmen b idie enc age f el i ching end b ing he g ea e benefi he eal hie i ban h eh ld ha c n me m e f el (Balla d-T emee and Ma hee, 2000), and h a e nlikel e bi ma f el an a .

Ha d a f , e, ARI? Wa hing hand h ghl a c i ical ime i acce ed a an effec i e in e en i n again dia h eal di ea e (ee bel). E idence i n g ing f i effec i ene again e i a infec i n . P bli hed die da e ela e he le e e e, i al infec i n in de el ed c n la i n he en ial f hi in e en i n ed ce deadl bac e ial ne m nia in de el ing c n ie i n kn n al h gh an ini ial d i c en l nde a (Cai nc , 2003).

D a ●a d ●a ●

Dia h eal di ea e ca e 15% f all child dea h ld ide. The e a e en i nmen al in e en i n f he c n l f dia h eal di ea e ha a e acce ed a effec i e and fea ible. The m im an am ng he e a e afe ani a i n and h giene ac ice , he la e f hich de end

hei h ical cha ac e i ic , ch a la ge head b d a i , hin e ide mi and malle ai a , inc ea e he likelih d f e i fa al c me . The im ance f childh d inj ie a a blic heal h i e in de el ing c n ie i g ing. Thi i a l a eflec i n f he declining im ance f infec i di ea e, b al a e l f inc ea ing bani a i n and m i a i n f cie ie , and he addi i nal i k ha he e change b ing (Deen e al, 1999). L and middle inc me c n ie ha e a e f child dea h b inj ha a e fi e ime highe han h e in highe inc me c n ie and acc n f 98% f all child inj m ali (Ba le , 2002).

Fall , i ning, d ning and b n a e een a he g ea e acciden al m ali i k f he nde -fi e (Z i e al, 2001). H e e , he e f inj ha cc a e c n e ecific. F e am le, ke ene i ning i ela ed he e f ke ene a a d me ic f el and d ning e i e e e a e . Thi mean ha he ch ice f in e en i n e en acciden al inj ill al be c n e ecific.

The li e a e i cha ac e i ed b a lack f da a f m de el ing c n ie . The e i h an gen need f im ed m ni ing and eillance f inj ie in de el ing c n ie hel fill hi inf ma i n ga . M e inf ma i n i needed facili a e he de el men f e idenced-ba ed in e en i n add e he main ca e f childh d acciden and inj ie . Se hi and Z i (1999) e a f ame k f f he e ea eae . T e ea-4.2 l( )-7-4 ai-13.8 ; i id e la i hi

Re, e,-e, ce,

Balla d-T emee , G. & A. Ma hee (2000)' Re ie f in e en i n ed ce he e e f men and ng child en ind ai ll i n in de el ing c n ie ' a e e a ed f US Agenc f In e na i nal De el men (USAID) and W ld Heal h O gani a i n (WHO) Gl bal C n l a i n, *Health Impacts of Indoor Air Pollution and Household Energy in Developing Countries: Setting the Agenda for Action*, Ma 3-4, Wa hing n D.C.

Ba le , S.N. (2002) The blem f child en' inj ie in l -inc me c n ie : a e ie . *Health Policy Plan*. 17(1):1-13.

B ce, N., R. Pe e -Padilla & R. Albalak (2000)' Ind ai ll i n in de el ing c n ie : a maj en i nmen al and blic heal h challenge' in *Bulletin of the World Health Organization*, 78 (9), . . 1078-1092.

Cai nc , S. (2003) Hand a hing i h a a ne a e en ARI ? T*ropical Medicine and International Health* 8 (8) 677-679 A g.

Cai nc , S., O'Neill, D., McC , A., and Se hi, D., (2003) Heal h, En i nmen and he B den f Di ea e; A G idance N e. De a men f In e na i nal De el men . L nd n.

Cha a e, D.C., Shle , R.P., M h , O.A., H l , S.R.A., C en , S.N. and Akh a , T. Im ac f fl c n l n childh d dia h ea in Paki an: c mm ni - and mi ed ial. *The Lancet* 353 (9146): 22-25 Jan 2.

In Ken a, he maj i f dea h am ng child en nde fi e a e a ib ed n afe en i nmen al li ing c ndi i n . Mala ia, dia h ea, e e i a infec i n and TB infe a i n a e all leading c n ib child m ali and m bidi in Ken a. In Tan ania, ne in e e fi e child en die needle l d e mala ia bef e he each fi e ea (W ld Vi i n 2004).

The in d c i n f F ee P ima Ed ca i n in Ken a and Uganda ha a l f ain n he h ical inf a c e incl ding ani a facili ie in ch l . In Uganda in 1999, nl 2% f he ch l had ade a e la ine , nl 37% f eache had ani a i n aining and nl 25% f ch l had h giene inf ma i n. The i a i n i e in cam f in e nall di laced e n in N he n Uganda, (Wa e , En i nmen and Sani a i n, WES Uganda). I i al e ed ha ab 3.5 milli n e le a e a i k f chi mia i infec i n and 67% f ch l g ing child en al ng he Ri e Nile and a nd Lake Vic ia a e infec ed i h he di ea e, (Na ci B.K e al. 2004).

The famil . ac ice a ge am ng he ,

Dia h ea . e en i n and c n l h gh in alla i n and e f afe a e . . lie and . ani a i n facili ie ,

Beha i change h gh h giene ed ca i n,

Sani a i n . m i n,

F d h giene, and

Im . ed h . ing ed ce ind ai . ll i n

In Ea Af ica, e e al gani a i n ha e in i ed in e . en i n add e en i nmen al heal h i e affec ing child en. Ch i ian Child en' F nd, hich . e a e in Ken a, Uganda and Tan ania, . . child i al h gh c mm ni -ba ed a . . ache ha hel . familie and ca e gi e

. . ialh . h ed2]0 1 (h)-(l h)-4.4 ll h ld
5ami an e en i . f am ng . chic (c)58.2 ( )-5.5 (e)-1. T en hh i , 1.4 ( )-3-1.1 (1.9 ( )-58..5 ( )7.1(i)-E-1

P e. a ed b WEDC